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Dissertation Thesis

The Impact of Fiscal Policy on Particular Economic Sectors in Turkey and Libya

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1. Introduction

The role of fiscal policy in economic growth has an important place in economic research and economic theory, Traditional role of fiscal policy in the classical economic theory is considered to be in fostering sustainable long-term growth through carefully designed tax systems and spending programmers (Hemming, et al. 2002). While the focus of these studies was mostly to identify the level effects of fiscal policy on growth, more recent literature, however, places increasing weight to the role of expansionary fiscal policy and its potential role in stimulating economic growth (Giavazzi and Pagano, 1990).

Much of the theoretical debate centre around the effects of fiscal expansions on growth where the classical Keynesian theory expects this effect to be positive, and vice versa, fiscal contractions are in this tradition associated with lower growth and recessions. Nevertheless, evidence of expansionary fiscal contraction does exist (Giavezzi and Pagano, 1990), though this is in contradiction with the expected (positive) sign of the fiscal multipliers (Hemming, et al. 2002). Such analysis is of vital importance to many economies where resources are limited for raising current levels of public spending. Two recent exceptions in this direction are by (Deverajan 1996) and (Gupta 2002).

The study by (Deverajan 1996) suggests that, for developing countries, switching public spending from investment to consumption type is growth enhancing. It follows that effectiveness of any particular fiscal policy in stimulating. This effect is specially emphasized in the endogenous growth models where capital taxes act to reduce the constant steady state rate of return of privately supplied, reproducible factor of production, and hence the steady state growth rate (Eken, 1997). Growth (or economic activity through e.g. stimulating investment) will depend on the magnitude and sign of the fiscal multipliers.

The role of fiscal policy the national government's planned, discretionary balance between its outlays and recurrent revenues (broadly, spending and taxes) has long been a subject of debate and controversy in modern times. During the 20th century, for a time at least, a 'Keynesian' views of the role of fiscal policy supplanted the more traditional conservative view.

The latter view took as its benchmark a rather thorough-going commitment to the maintenance of a balanced budget aggregate spending being restricted to the size of aggregate recurrent revenue with a view to the objective of sound management of the government sector's 'balance sheet'. Or to put the same point differently, budgets were to be framed with a view to prudent management of the State's assets, financial liabilities and net worth generally with a presumption in favor of 'small government'. This approach does not inexorably lead to the policy conclusion that there ought to be continuous annual balancing of outlays and recurrent revenue: it is consistent, for example, with balancing the 'current' budget (recurrent expenditures equal to recurrent revenues), while funding capital expenditure with issue of financial liabilities (government debt).

For in this way, at least if sensibly done, the value of assets would increase with the extent of financial liabilities, with no deterioration in the public sector's net worth. Nevertheless, in practice the credo of the balanced budget was the common mantra. And in truth, the illiquidity of government assets, and their commonly non-revenue-generating character, means that funding assets with debt is not a straightforwardly viable financial exercise. The role of fiscal policy in developed economies is to maintain full employment and stabilize growth. In contrast, in developing countries, fiscal policy is used to create an environment for rapid economic growth.

2. Research Objectives and Hypotheses

Economic policies, thus setting the parameters in the economic systems of countries are the key part of economic practice creating an environment affecting the development and functioning of individual economic operators and thus logically affecting the sectors of the economy. Fiscal policy is one of the economic policy, which has the power to influence to some degree the whole economy.

The main objective of this study is to find out the right fiscal policy which encourages the economic growth and to analyze the impacts of various fiscal policies instruments on the economic performance in Libya and Turkey. Achieving this goal presumes the creation of the comprehensive characterization of fiscal policy in Libya and Turkey, the analysis of instruments, which both countries are using and comparison of fiscal policies between these two states, as well as to express the specifics of their behavior in terms of globalization of economies.

As the part of this objective and at the same time in discussions on this issue, we need to clear the uncertainties of existence and strength of certain bonds and relationships and to prove these, there will be examined and tested the following hypotheses:

- **The first hypothesis:** *The economic development of Turkey and Libya is affected by the fiscal policy. So the use of taxation and government spending influence the economy and thus the GDP.*

- **The second hypothesis:** *Size and quality of fiscal adjustment determines the success of the consolidation. If the consolidation is coming from the expenditure side; mainly from cutting in transfers and wages are tend to be more associated with better growth.*

- **The third hypothesis:** *The impact of the fiscal adjustment works either through private consumption and investment or through factor productivity.*

- **The fourth hypothesis:** *Fiscal consolidation reduces high public debt. With the increased credibility of the government policies the threat of higher taxes, and risk premium on interest falls which stimulate aggregate demand.*

While evaluating these hypotheses, it is necessary to express what the goals of fiscal policy are and what a fiscal policy is affecting. The official goals of fiscal policy usually include relatively stable prices, low unemployment and steady economic growth. Unfortunately, these three goals are contradictory, because according to the Phillips curve, there is a historical inverse relationship between the rate of unemployment and the rate of inflation in an economy. Stated simply, the lower the unemployment in an economy, the higher the rate of inflation. While it has been observed that there is a stable short run tradeoff between unemployment and inflation, this has not been observed in the long run. Also, steep economic growth of the economy means high inflation. So fiscal policy must make compromises between these goals. To achieve fiscal policy uses government revenue collection and expenditure to influence the economy (Sheffrin, 2003). These two main instruments of fiscal policy are government taxation and changes in the level and composition of taxation and government spending are affecting aggregate demand and the level of economic activity, the pattern of resource allocation and the distribution of income.

So I can now proceed with defining sub-goals of this dissertation thesis, which will help me get the correct evaluation of the hypotheses:

- **The first sub-goal** concerns mobilizations of resources. The objective is to prove, that developing economies are characterized by low levels of income and investment, which are linked in a vicious circle and if this can be successfully broken by mobilizing resources for investment energetically.

- **The second sub-goal** concerns acceleration of economic growth. The objective is to prove, that the government has not only to mobilize more resources for investment, but also to direct the resources to those channels where the yield is higher and the goods produced are socially acceptable.

- **The third sub-goal** concerns minimization of the inequalities of income and wealth. The objective is to prove, that fiscal tools can be used to bring about the redistribution of income in favor of the poor by spending revenue so raised on social welfare activities.

- **The fourth sub-goal** concerns increasing of employment opportunities. The objective is to prove, that fiscal incentives, in the form of tax-rebates and concessions, can be used to promote the growth of those industries that have high employment generation potential.

- **The fifth sub-goal** concerns price stability. The objective is to prove, that fiscal tools can be employed to contain inflationary and deflationary tendencies in the economy.

- **The sixth sub-goal** concerns the economic development of Turkey and Libya**.** This presumes analyzing the development of the most important economic indicator GDP in both countries and to prove that it is influenced by fiscal tools.

3. Research Methodology

The research methodology of this dissertation thesis is based on basic macroeconomic models for fiscal policy in conditions of contemporary society developed by mainstream economists including the use of taxation and state expenditures of individual states, which are starting points for exploring the behavior of both nations and their deep analysis.

Exploration of this problem is performed using a combination of methods of logic, induction and deduction, analogy, application of basic economic principles, actual results substantiate the conclusions of scientific research, logical construction of the connections and links, as well as the methods of narrative economy, demonstrations on practical examples, description, comparison and relationship data analysis, graphical analysis, correlation and regression. Analyzing fiscal policies and its effects on the economic development of selected countries presume using mainly quantitative methods. Tables as well as graphical presentation of the relevant data were used to show its trends and outcomes in this study. Basically this study was confined to the behavior and trend analysis among the components of money supply.

Research methods will rely on the review of the relevant literature, documentary and statistical data. As much as possible, official primary data (for example, on money supply or on fiscal accounts) will be gathered, collated and utilized in our analyses in contrast with data that is reported in secondary sources. This is something that may facilitate international (and even inter-regional) analysis and comparisons. To make progress in this line of analysis, and where time series data is adequate, we will carry out panel analysis. Because panel analysis integrates time series and cross-section analysis, we will explore how this can be expanded to other countries or the whole region.

The methodology of this thesis lies in its theoretical part in the collection, study and process knowledge of current scientific and technical literature related to monetary policies in both nations. As theoretical and methodological base of research the works of the domestic and foreign economists on problems growth effects of fiscal policies, ways and methods of a comparative analysis in Emerging Economies have served during economic reforms.

The dissertation proceeds as follows. The first is literature overview of the available theoretical insights on the relationship between the activities and behavior of governments and economic growth. It can be argued that this literature has not yielded many clear, testable implications. Despite the lack of clear testable implications following from economic theory, much empirical research has tried to shed some light on the relation between fiscal policy and economic growth, which will be selectively reviewed in section These studies try to explain average growth rates over long periods by possibly explanatory variables like initial income (to test the convergence hypothesis; see, for example, (Barro and Sala, Martin, 1995), investment ratios (to test for the effect of capital accumulation), or various kinds of policy variables like government expenditure, taxation, black market premiums on foreign exchange, tariff rates, schooling variables, etc. (see Barro and Sala, Martin 1995). These types of regression equations have become popular due to (Barro 1991) and are by now known as 'Barro-equations'. I will present some evidence on the role of fiscal policy that has resulted from these studies, and also pay some attention to the problems that they face.

After literature overview follows analytical part of the dissertation thesis, where there will be deeply analyzed the most important tool of fiscal policy in Turkey and Libya and their effects on the economic development of both countries. The Chapter about taxation and tax policy in Libya and Turkey enlighten the relationship between positive sides of taxes and their negative side effects that reduce economic welfare, either by mandating unproductive labor or by creating distortions to economic incentives. The second instrument of fiscal policy is government spending, which will be showed in relationship with economic development (means GDP) in both Libya and Turkey. The author of the dissertation will then give suggestions, which should make fiscal policies in both countries more effective regarding the economic development, evaluate hypotheses and summarizes acquired facts in the conclusion.

4. Fiscal policy and its mechanism

4.1 The concepts of the Fiscal policy

The modern fiscal policy defines basic directions of use of financial resources of the state, means of financing and main sources of updating of treasury. Depending on concrete - historical conditions in different countries such policy (politics) has its own features. At the same time in Developed Countries is used set of common measures. It includes straight and indirect financial methods of regulation of economy.

To straight ways concern the means of budget regulation. By the means of the state budget are financed:

- Expense on expanding of reproduction.
- Unproductive expenditures of the state.
- Development of an infrastructure, scientific researches and etc.
- Realization of structural policy (politics).
- The support of military producers complex etc.

With help of indirect methods state influences on financial opportunity of the manufacturers of the goods and services and on the demand sizes of customer. The important role here plays the System Taxation. Changing the rates of the taxes on various kinds of the incomes, giving tax privileges, reducing free minimum of the incomes etc., state aspires to achieve probably steadier rates of economic Growth and to avoid sharp rises and falls of manufacture. To number of the important indirect methods assisting accumulation of the capital is the policy (politics) of the accelerated amortization. On the essence, the state exempts the businessmen from payment taxes with part of the profit, is artificial redistribute it in amortization fund. So, in Germany in the beginning 70 years on a number of industries on amortization it was authorized to write off till 20-30 of % of cost of a fixed capital in one year. In Great Britain in first year of introduction in using of the new equipment it was possible to deduct in fund of amortization 50 % of cost new instruments of manufacture.

Fiscal policy can effectively influence the future growth rate of the economy by promoting the expansion of human capital stock (e.g. education, health) or by investing into infrastructure projects or into strengthening the legal operation framework of the economy (jurisdiction). These expenditures are viewed as productive. The improvement in the quality of human capital and the modernization of infrastructure are extremely important sources of growth for Libiya and Turkey, as these factors play a crucial role in promoting FDI investments. The technology spill-over from these investment enable a faster catch-up of the transition economy. This evolution in turn allows for rapid income convergence. On the other hand, welfare transfers and state subsidies to industries are considered to be unproductive in the endogenous growth framework.

Regarding the revenue side (taxes mainly) endogenous growth theory stipulates that the reduction in those taxes that distort the efficient allocation of production resources (taxes on labour, capital) should stoke higher economic growth. These taxes are considered as distortionary, while taxes on consumption are treated as non-distortionary. Therefore, it is their essential interest to adjust fiscal policy in the direction to support economic convergence by choosing the most appropriate expenditure and revenue composition.

Nevertheless finding support for the theory in data is not straightforward at all---and it is not just because the short time series and the less reliable fiscal accounting in the initial phase of transition.

The theory would link the spending level on productive expenditures to faster economic growth. The first and most important thing that we have to note is that in case of productive expenditures the level of spending does not per se define the efficiency of the spending. Therefore increased absolute spending might not be a true sign of improved efficiency---or a drop in expenditures might not simply mean a drop in the service quality (this side looks more probable though). These problems are expected to typically occur in the beginning of transition, when due to high inflation the real value of the expenditure side of the budget drops, as there are no immediate indexations.

However, we can assume that the government sets the overall expenditure side of the budget exogenously and if we find a permanent shift for higher share of productive expenditures we should consider this as a positive policy move in our analytical framework. This should be naturally true when there is an increase in absolute level of productive expenditures as well.

The second issue is the heterogeneity of productive expenditures. While expenditures that are aimed at boosting human capital consist significantly from labour costs, infrastructure spending is to a much higher extent is capital expenditure. These expenditures can have very different nature in terms of persistence this is because alteration in wage related expenditures should have a more lasting impact than the juggle with investment spending, which usually is one of the first candidates for a cut-back in case of a fiscal tightening. This indeed adds significant noise to the data which can only be removed by tracking back the exact policy measures. A similar problem might occur with revenues as well. The evaluation of the nominal tax levels may not be sufficient to derive conclusions on the actual change in the tax system (e.g. in Turkey when corporate tax rate was cut by a half to 18% in 2010 the nominal corporate tax inflow was higher than in 1998).

4.2 Types of Fiscal Policy

Depending on the purpose the stimulating or constraining fiscal policy is spent. During the slump in production periods it is necessary to increase the State expenditure, to reduce taxes or to do both that and another to spend stimulating a policy. In the short-term period it softens a business cycle. In the short-term period it softens a business cycle. In long-term decrease in taxes can lead to stimulation of economic growth. So was in 80th years in the developed countries where tax reforms in which result rates of the profit tax of corporations have been lowered, surtax, promoted economy lifting.

With a view of decrease in rates of inflation realize constraining the fiscal policy. It consists in reduction of the State expenditure, increase in taxes or in a combination of those and other measures. In the short-term period the constraining policy allows to reduce cumulative

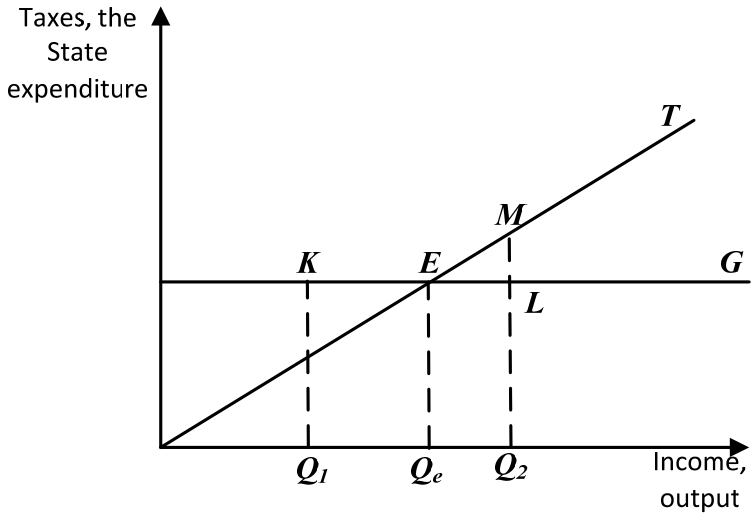
demand and by that helps decrease in inflation of demand. In the long-term period it can lead to slump in production and unemployment growth.

To find out, whether the fiscal policy spent by the government is correct, it is necessary to estimate its results. Most often in these purposes use a condition of the state budget as realization of a fiscal policy is accompanied by growth or reduction of budgetary deficiencies or surpluses. However to judge on these indicators effectiveness of a spent discretionary policy difficult enough. This results from the fact that, on the one hand, actual budgetary deficiencies and surpluses can will change owing to purposeful change of the State expenditure and taxes, and, on the other hand, for their sizes changes of volume of a national product, incomes that are caused by existence of the built in stability can affect.

To divide these reasons and to have possibility to estimate correctness of accepted measures, use the full employment budget. It shows, what would be deficiency or surplus of the state budget if the economy functioned in the conditions of a full employment. We will consider budgetary deficiencies and surpluses (Figure 1) let's assume that the budget can be balanced in point E at volume of release Qe. Actual volume of output Q1, and potential at a full employment Q2. Budgetary deficiency KL existing at actual volume of output Q1 can testify that the stimulating fiscal policy which is accompanied by occurrence or growth of budgetary deficiency is spent.

However actually no stimulating measures are undertaken. It proves that at a full employment both the same actual State expenditure and taxes lines G and T remain on former places; the full employment budget has surplus MN. Thus, the reason of actual deficiency is slump in production. The fiscal policy, on the contrary, was constraining and partly therefore the level of production in the country was below potential. There is a necessity for acceptance of appropriate fiscal measures, i.e. for stimulation of cumulative demand.

Figure 1: Budgetary deficiencies, surpluses the full employment budget



Change of the budget of a full employment shows, how the spent fiscal policy influences change of cumulative demand. Growth of deficiency or reduction of surplus of the budget of a full employment testifies to carrying out of the stimulating fiscal policy directed on expansion of cumulative demand. On the contrary, reduction of deficiency or increase in surplus of the budget of a full employment grows out of realization of the constraining fiscal policy, which purpose reduction of cumulative demand.

However in these cases the amortization is written off in the sizes, that significant exceeding the valid deterioration basic capital, in consequences the raise of price on made with the help of this equipment production. If accelerated amortization expands financial opportunities of the businessmen, simultaneously it deteriorates the condition of realization of production and reduces purchasing power of population. Depending on character of use direct and indirect financial methods distinguish two kinds of fiscal policy of the state: discretion fiscal policy or automatic fiscal policy.

4.3 Discretionary fiscal policy

One of the basic tools of macroeconomic regulation is the fiscal policy. As a fiscal policy understand set of the measures undertaken by governmental bodies on change of the State expenditure and the taxation. Its primary goals are: smoothing of fluctuations of a business cycle, maintenance of steady rates of economic growth, achievement of a high occupation level, inflation decrease.

The fiscal policy depending on mechanisms of its regulation on change of an economic situation shares on the discretionary and automatic fiscal policy (the politician of the built in stabilizers).Discretion (lat. discrecio - working on itself discretion) the policy (politics) means the following. The state consciously regulates its expenditure and taxation with the purposes of improvements economic of situation of the country. At the same time government takes into account the following checked up on practice functional dependences between financial variable.

The first dependence: the growth of the state expenditures increases cumulative demand (consumption and investments). Thereof increase output and employment of the population. Is important to take into account, that state expenditures influence on cumulative demand the same as to investments (work as the animator of investment which has developed J. Keynes).

Other functional dependence shows, that increase the sums of the taxes are reduced the personal available income of household. In this case are reduced demand and volume of production and employment of a labor. And on the contrary: decrease (reduction) of the taxes conducts to increase of the consumer expenditures, production and employment.

The change of the taxation gives multiply effect. However the multiplier of the taxes is less than the multiplier of the investments and state expenditures. Actually increase in unit of a gain of the investments (and state expenditures) is directly influenced on increase in the volume of the GNP. At reduction of taxes, grows available income, however part it goes on the consumption, and stayed share is spent for the savings. Mentioned functional dependences are used in discretion policy (politics) of the state for influence on business cycle. Certainly, this policy (politics) differs on different phases of a cycle. For example, at crisis the policy (politics)

of economic growth will be carried out. In interests of growth GNP the state expenditures are increased, the taxes are reduced, and the growth of the expenditures is combined with reduction the taxes so that multiply effect on state expenses was more than multiply effect of the taxes. A result is reduction of recession of manufacture.

When there is an inflationary growth of manufacture (rise, induced by surplus of demand), the government will carry out policy (politics) that hold back business activity - reduces the state expenditures, increases the taxes. These measures are combined so that multiply effect of reduction of the expenditures was more, than multiplier of growth of the taxes. In result the cumulative demand is reduced and volume GNP accordingly decreases.

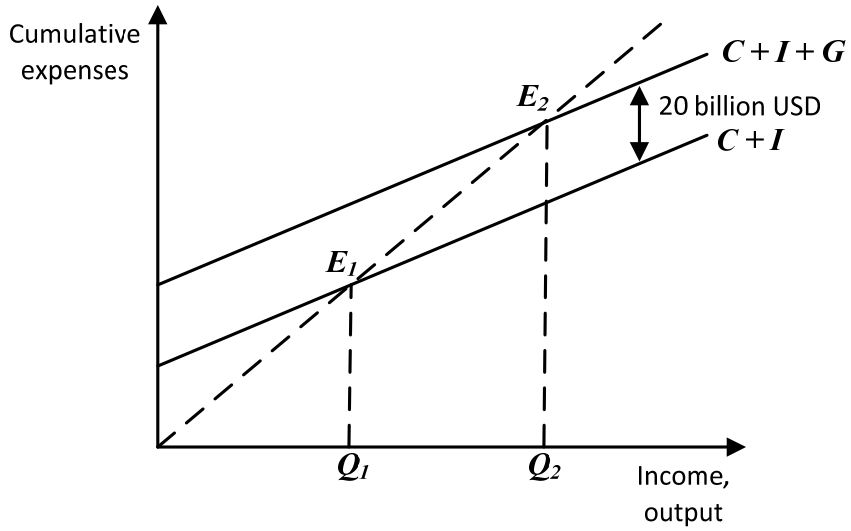
As a discretionary policy understand a conscious manipulation the government the State expenditure and taxes. It still name an active fiscal policy. It can be carried out with the help both direct, and indirect tools. To the first carry change of the state purchases of the goods and services, transfer payments. To the second – changes in the taxation (rates of taxes, tax privileges, base of the taxation), to the politician of the accelerated amortization.

Let's consider the mechanism of a discretionary fiscal policy, using Keynesian model “incomes – expenses” and believing that: 1) the State expenditure doesn't influence neither consumption, nor on investments; 2) pure export is equal to zero; 3) the price level is constant; 4) originally in economy there are no taxes; 5) the fiscal policy affects cumulative expenses (cumulative demand), but not on the cumulative offer. Considering these assumptions, I will analyze influence of change of the State expenditure on volume of national manufacture (release), the income. Let's assume that originally cumulative expenses included consumer expenses With and investments I, and economy was in balance in point E1 (the Appendix 2, drawing 2).

In connection with begun slump in production the government has made decision to support demand, having increased cumulative expenses at the expense of the state purchases G (we will consider at first only this element of the State expenditure). It has carried out purchases of the goods and services for the sum of 20 billion USD. This State expenditure is independent,

i.e. are constant for any output. Therefore they will lead to increase in cumulative expenses too on 20 billion USD that will cause shift of straight line C+I upwards on size G, in position C+I+G. Planned expenses begin to exceed equilibrium volume of release Q1. In the firm answer will start to expand manufacture. This process will proceed until there will come equality between cumulative expenses and release volume. New position of balance will be reached in point E2 at release Q2. The increase in the state purchases stimulated growth of volume of output with Q1 to Q2. The distance on a vertical between straight lines C+I and C+I+G shows size of the state purchases, and distance between Q2 and Q1 - an output gain. From drawing it is visible that this gain several times exceeds volume of the state purchases, i.e. the last possess effect of the animator. The animator of State expenditure Mg shows change of output, the income as a result of change of expenses of the state. He can be calculated under the formula:

Figure 2: The state purchases and an equilibrium national product.



Mg = Change of a real national product (income) / Change of the State expenditure.

The animator of the State expenditure is equal to the animator of investments as they render identical effect on economy. Really, growth of the state purchases (as well as investments)

creates additional demand for the goods and services which causes the primary increment of the income equal to growth of the State expenditure. The part of this income defined by limiting propensity to consumption will be used on consumption that will lead to the further increase of cumulative demand and the national income etc. Hence, change of the State expenditure actuates the same process of animation of the national income, as well as change of private investments. Therefore the animator of the State expenditure also it is possible to define under the formula:

$$Mg = \frac{1}{(1 - MPC)}$$

To define the change of a real national product (income) received as a result of growth of the state purchases, it is necessary to increase animator Mg by a gain of the State expenditure dG.

During the periods of lifting of economy when private expenses are great enough, the government reduces purchases of the goods and services. Reduction of the State expenditure is accompanied by shift of a curve of cumulative expenses C+I+G downwards and leads to animated reduction of volume of a national product, incomes.

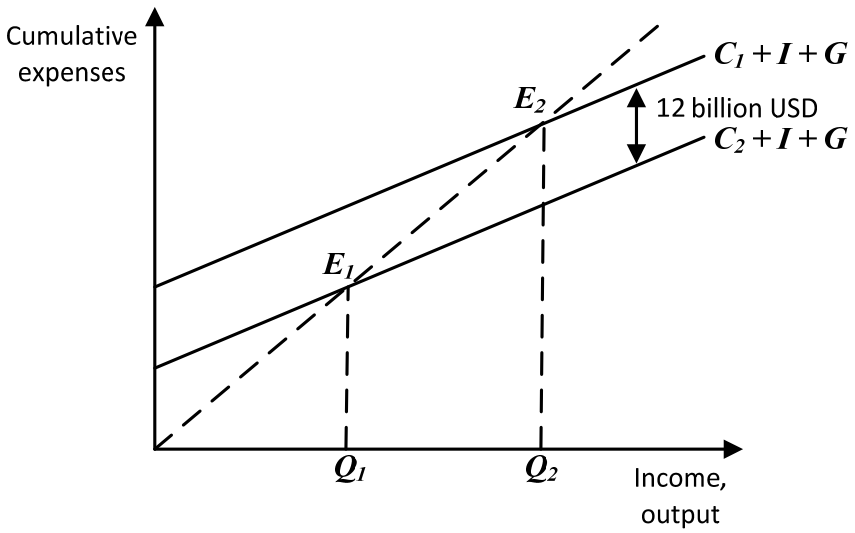
The same as changes of the state purchases, on volume of release, incomes, operate changes of transfer payments which are an element of the State expenditure. However efficiency of their influence on demand so, and on volume of a national product it is slightly less. This results from the fact that transfer payments to the population lead to growth of its incomes, but only their part defined by limiting propensity to consumption MPC, the population uses on consumption, increasing by the same size cumulative expenses. The mechanism of influence of change of transfer payments on release, incomes is similar to what operates at change of taxes.

That the State expenditure had stimulating action, they shouldn't be financed at the expense of tax revenues. Growth of tax rates will lower stimulus to business activity that will lead to reduction of volume of output, incomes. Therefore growth of the State expenditure, as a rule, is accompanied by budgetary deficiency. Thus, increasing expenses in slump in production and

reducing them during economic lifting, the state softens economic crises, achieves smoother growth of volume of national manufacture.

The tools of a discretionary fiscal policy are changes in the taxation. We will consider how introduction of the accord (lump-sum) tax will affect volume of a national product. It is the tax in strictly set sum which size remains to a constant at change of volume of release. We will admit that at cumulative expenses C1 + I + G the equilibrium condition was reached in point E1 at volume of release Q1. (Figure 3)

Figure 3: Accord taxes and an equilibrium national product



The state imposes the accord tax from the population, equal 16 billion USD. The population uses the incomes on consumption and the savings, the parity between which changes is defined by limiting propensity to consumption MPC. We will accept its equal s. taking into account MPC tax introduction in 16 billion USD; will cause reduction of consumption by 12 billion USD that will lead to reduction of cumulative expenses on the same size. Straight line C1 + I + G will move downwards, in position C2 + I + G. Reduction of expenses and demand will be accompanied by curtailment of production until there will come a new equilibrium state in point

E2 at volume of release Q2. Apparently from drawing, distance between Q2 and Q1 more than the difference on a vertical between straight lines C1+I+G and C2+I+G, i.e. is more than 12 billion rubles that testifies to presence of the animator of taxes. This results from the fact that change of the state purchases on one monetary unit leads to the same change of cumulative expenses, and change of the accord tax to monetary unit is accompanied by change of cumulative expenses on MPC * 1. Therefore the tax animator will be equal:

$$Mn = MPC \cdot Mg \text{ or } Mn = \frac{MPC}{(1 - MPC)}$$

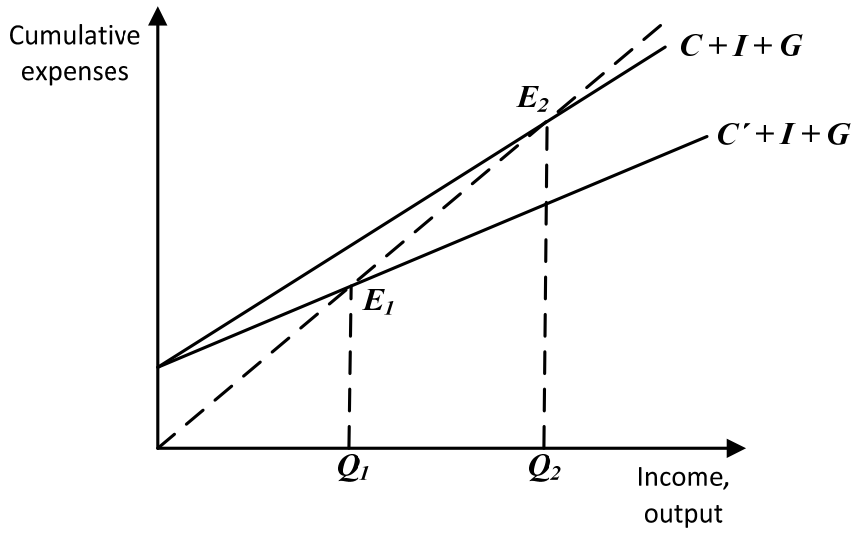
Under the same formula it is possible to calculate the animator of transfer payments. However if the increase in taxes leads to reduction of a national product, incomes growth of transfer payments, on the contrary, promotes their increase.

In practice accord taxes meet seldom enough. As a rule, with increase in volume of release, incomes taxes grow. We will consider how change of rates of the proportional tax influences cumulative expenses and a national product. Let's admit that at the tax rate equal to zero, the economic system will be in balance - point E1 (the Appendix 3, drawing 5.) Equilibrium volume of release Q1.

Let's assume that the state is imposed by the income proportional tax, which rate t. If the income of the population before tax introduction was Y after tax collection they had income can be calculated so: Y – tY = (1 – t) Y (independent taxes we will not consider at calculations). It means that each monetary unit of the income earlier on consumption left MPC * 1, and now: (1-t) MPC, i.e. new limiting propensity to consumption MPC' will lead to decrease in an inclination of a curve of cumulative expenses, i.e. to its shift in position C ' + I + G. The balance point will move from E1 in E2 that will lead to reduction of volume of national manufacture with Q1 to Q2. Taking into account new value of limiting propensity to consumption MPC ' the tax animator it is possible to calculate under the formula:

$$Mn = \frac{1}{(1 - MPC)} = \frac{1}{(1 - t) \cdot MPC}$$

Figure 4: Proportional taxes and an equilibrium national product



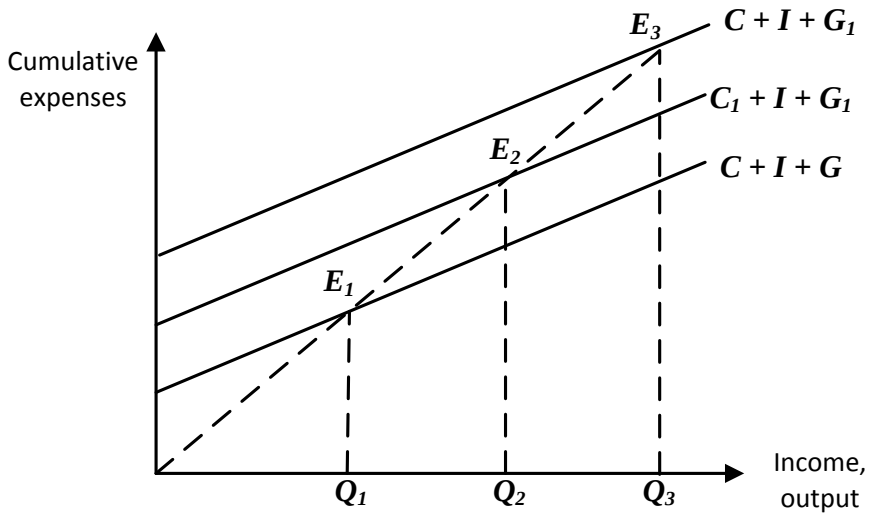
To define, equilibrium output (income) was reduced to what size at introduction of the tax rate t, it is necessary to increase the initial reduction of consumer expenses received as a result of introduction of surtax, on the animator. If before introduction of the tax level of the national income was Y1 = Q1 after its withdrawal the income has decreased on tY1, and consumer expenses on MPCtY1. Therefore the equilibrium national income was reduced to the following size:

$$dY = -Mn \cdot MPCtY_1 = \frac{-1}{(1 - t) \cdot MPC}$$

Similar reasoning's take place and otherwise when the tax rate decreases, and the national income increases. The fiscal policy, as a rule, operates simultaneously both state expenses, and its taxes. The particular interest represents a case when the state increases the purchases G and taxes T to identical size (balance of the state budget thus doesn't change). We will analyze

consequences of these actions. We will admit that originally balance was reached in point E1. (Figure5).

Figure 5: The state purchases, taxes and an equilibrium national product



Let's assume, the state has increased purchases of the goods and services by 20 million USD that has led to growth of cumulative expenses too on 20 million USD and to shift of curve C=I+G upwards, in position C+I+G1. The balance point has moved from E1 in E2. The volume of a national product has increased with Q1 to Q2. To calculate its gain it is possible as follows (MPC we will accept equal s):

Q2-Q1 = Mg * 20 million USD = (1/ (1- s)) 20 million USD = 80 million USD

Q2-Q1 = Mg * 20 million USD = (1/(1 s)) 20 million USD = 80 million USD

Introduction of the accord tax in size in 20 million USD will shift curve C+I+G1 downwards, in position C1+I+G1. Shift will occur on size of 15 million USD as the animator of taxes is less the than animator of expenses. The balance point will move from E2 in E3, and the

volume of output will decrease with Q2 to Q3. The Volume of output as a result of tax introduction will be reduced on: Q2-Q3 = Mn * 20 million USD = ((3/4) / (1-3/4)) 20 million USD = 60 million USD.

Hence, as a result of growth of the state purchases the national product has increased by 80 million USD, and tax introduction has reduced it to 60 million USD. Thus, the simultaneous increase in the State expenditure and taxes to 20 million USD has caused growth of a national product also on 20 million rubles, i.e. the animator is equal 1. It is called as the animator of the balanced budget and doesn't depend on limiting propensity to consumption. It is possible to prove it arithmetically if to subtract from a gain of the national product received as a result of increase of the State expenditure, the reduction of the same national product caused by introduction of the accord tax. The general result of these actions will be equal:

Q3-Q1 = (1 / (1-MPC)) 20 million USD – (MPC / (1-MRS)) 20 million USD = ((1-MRS) / (1-MRS)) 20 million USD = 1*20 million USD

In model "expenses-incomes" the discretionary policy is considered at an invariable price level. In real life the increase in the State expenditure, decrease in taxes conduct to growth of cumulative expenses and demand that leads to increase of a price level and growth of the rate of loan percent which cause in turn reduction of private investments. This effect named effect of replacement reduces effectiveness of a fiscal policy.

4.4 Automatic Fiscal Policy

The second kind of fiscal policy - non-discretion, or policy of the automatic (built - in) stabilizers. The automatic stabilizer - economic mechanism, which without assistance of the state eliminates an adverse situation on different phases business cycle. Basic built - in stabilizers are tax receipt and social payments that are carried out by the state. On a phase of rise, naturally, the incomes of firms and population grow. But at the progressive taxation the sums of the taxes increased even faster. In this period the unemployment is reduced, well being of needy families is improved. Hence, decrease the payments of the unemployment benefits and others social

expenditures of the state. In a result the cumulative demand is reduced, and it constrains economic growth.

The tendency of transfer payment spending to rise during recessions and fall during expansions results from the bases on which people qualify to receive these payments. People qualify to receive welfare programs only if their income falls below a certain level. They qualify for unemployment compensation by losing their jobs. When the economy expands, incomes and employment rise, and fewer people qualify for welfare or unemployment benefits. Spending for those programs therefore tends to fall. When economic activity falls, incomes fall. people lose jobs, and more people qualify for aid, so spending for these programs rises.

Taxes affect the relationship between real GDP and personal disposable income they therefore affect consumption expenditures. They also influence investment decisions. Taxes imposed on firms affect the profitability of investment decisions and therefore affect the levels of investment firms will choose. Payroll taxes imposed on firms affect the costs of hiring workers; they therefore have -impact on employment and on the real wages earned by workers.

Let's take example for the most important version of the taxes – the income tax, which is established on the incomes of physical persons and on profit of firms. How the size of this tax is defined (determined)?

First is counted the total income - sum of all incomes that are getting by the physical and legal entities from different sources. From the total income by the legislation it is usual it is authorized deduct: 1) industrial, transport, the travelers and advertising expenditures; 2) various tax privileges (free minimum of the incomes; for example, in USA in 1990 this minimum was 2050 dollars; the sums of the donations, privilege for the pensioners, disable people etc.). Thus, taxed income is a difference between the total income and the specified deductions.

It is important to establish optimum tax rate (size of the tax on unit of taxation). The following rates of the tax differ:

- hard, which are established on unit of object independently on its cost (for example, motor vehicle);
- proportional, i.e. uniform percent(interest) of payment of the taxes independently on the sizes of the incomes;
- Progressive, growing with increase of the incomes.

The practice shows, that at the extremely high rates of taxes discourages to work and to the innovation. Sharp increase in 60-70-e years in western countries of tax burden has resulted the negative consequences. It has caused “Tax revolts ", wide evasion from the taxes, promoted outflow of the capitals and flight of the addressees of the high personal incomes in the countries with one lower level of the taxation.

As it is known, in 70’s neo-conservators have put forward the theory of Supply. Its authors have established that growth of the taxation renders adverse influence on dynamics of manufacture and incomes. Increase of the taxes at the expense of increase of their rates on certain stage does not compensate reduction of receipts in the state budget because of fast narrowing taxed incomes, and then it can be accompanied also by reduction of total sums of the budget incomes. In a result the high taxes render constraining influence on the offer of the capital, work and savings.

Basic task of economic policy representatives of the theory of Supply consider determining the optimum rates of taxation and both tax privileges and payments. Decrease (reduction) of the taxes is considered as a means capable to ensure Long-term economic growth and struggle with inflation. It will strengthen aspiration to receive huge incomes, will render the stimulating influence will increase by growth of production.

In practice level of the State expenditure, tax revenues can change even in case the government doesn't accept corresponding decisions. It speaks existence of the built in stability which defines automatic (passive, not discretionary) the fiscal policy. The built in stability is based on mechanisms which work in a mode of self-regulation and automatically react to changes of state of the economy. They are called (automatic) stabilizers. There are:

- **Changes of tax revenues**

The sum of taxes depends on size of incomes of the population and the enterprises. In slump in production incomes will start to decrease that will automatically reduce tax revenues in treasury. Hence, the incomes remaining with the population, the enterprises will increase. It will allow slowing down decrease in cumulative demand that will positively affect economy development in certain degree. The same influence renders also progressiveness of tax system. At reduction of volume of national manufacture incomes are reduced, but also tax rates that is accompanied by reduction both the absolute sum of tax revenues of treasury, and their share in society incomes simultaneously go down. As a result falling of cumulative demand will be softer.

- **Systems of unemployment benefits and social payments.**

They also have automatic ant cyclic influence. So, the occupation level increase conducts to growth of taxes for which account unemployment benefits are financed. At slump in production the number of the unemployed that reduces cumulative demand increases.

However also the sums of payments of unemployment benefits simultaneously grow. It supports consumption, slows down falling of demand and, hence, counteracts crisis increase. In the same automatic mode systems of indexation of incomes, social payments function. There are also other forms of the built in stabilizers: programs of the help to farmers, savings of corporations, personal savings etc.

The built in stabilizers soften changes in cumulative demand and by that help to stabilize release of a national product. Thanking their action business cycle development has changed: slumps in production became less deep and shorter. Earlier it was impossible, as tax rates were more low, and unemployment benefits and social payments are insignificant.

The main advantage of not discretionary fiscal policy that its tools (the built in stabilizers) join immediately at the slightest change of economic conditions, i.e. here practically is absent a time log. The lack of an automatic fiscal policy that it only helps to smooth cyclic fluctuations, but can't eliminate them. It is necessary to note, than above the rate of taxes, than more transfer payments, not discretionary policy is especially effective.

5. Growth Effects of Fiscal Policies in Emerging Economies

5.1 The main purpose of fiscal policy

Practical and theoretical base for state regulation of market economy has become essential issue after the Great Depression of the 1930s. It has become clear that, to overcome the obstacles of creating a system with specific measures is to prevent possible recurrence of severe crises. The stabilization of the economy along with the use of money, credit and banking system is through a robust fiscal policy, which is related to changes should be made by the Government in order to stipulate government spending and taxation, providing a full-time, non-inflationary production of gross national product and stimulating economic growth.

So the main question is whether this policy will be constructive or unconscious and inconsistent. In the context of the above ideas about fiscal policy, it should be indicate that the number of mandatory conditions or methodological principles needed to study the relationships between the entities of macro-economic indicators of the dynamic processes and fiscal policy as a major instrument of state macroeconomic regulation.

At first. Link fiscal policy to macroeconomic processes allows us to look at it, as one of the elements of macroeconomics. It is important to note that the macro-economy, by definition, is a branch of the science of the economy as a whole, as opposed to microeconomics - the branch of science on the individual markets and economic actors (agents).

Therefore, in the sphere of macroeconomic analysis primarily as a money figure meter on the one hand, all kinds of limited resources used or consumed within a certain period of time and on the other hand - the total value of products and services developed and implemented at the same time. The enormity of the processes behind these concepts, it is difficult, even with uncommon imagination! To cope with such difficulties to study these processes using the method of system analysis, modeling, macro objects. Macroeconomic model allows using computed aggregates to give a general idea about the state of the national economy, not only quantitatively but also qualitatively side, fiscal policy indicators are an organic part.

At second. Like all other quantitative macroeconomic characteristics, indicators of fiscal policy are not static, but reflect the continuous motion of the economy - its dynamics. Therefore, to determine the status of a market economic system in general for a specific period (usually a year) requires a deep analysis of the total estimated macroeconomic indicators of the basic parameters of movement of these dynamics: global and aggregate vectors, rates - absolute and correlative, and much more.

Intelligence specialists, exploring the dynamics of the aggregate of these indicators, making conclusions about the state of the economy as a whole, for individual units, etc. The main tools of analysis carried out, are dynamic models of graphics, that can be used to determine the configuration of the curve that shows the features and phases of cyclical macroeconomic development process: a desired portion of the curve, going up (recovery, recovery), the other part - parallel to the horizontal coordinate axis (stagnation stagnation, stabilization), totter down the line (crisis, recession). But also the pace, duration, etc.

Accordingly, the movement of key macroeconomic indicators and parameters of change of the indicators used in fiscal policy. The following is an abstract model of the dynamics of macroeconomic processes. These abstract models are characterized by not only the overall macroeconomic dynamics, but also time series of the indicators of the internal structure of the economy, which determine the multidirectional movement of the numerous private parts. This fully applies to the interaction of specific indicators of fiscal policy and macroeconomic dynamics.

The estimation Reliability of the state of the economy in a country can only be after some time, after it occurred in the change. For collect statistics on all major aspects of economic life, process them and turn in time series analysis results, etc. etc. All this is extremely time-consuming and complex processes that take a lot of time. But the most important thing is that the findings accurately and fully express the essence of the events and their specific dynamics. Under present conditions, all these problems can be solved, and in developed countries implementing a comprehensive development of basic macroeconomic models, understanding the laws that govern

their dynamics; established a methodology and the calculation methodology of indicators, forecasting, etc.

Among the macroeconomic estimates of the critical role played by: gross national product (GNP), gross domestic product (GDP), net national product (NNP), the national income (ND), as well as other indicators of individual aspects of a single macro-economic process, such as the value of interest income, expenditures and balance the state budget. The latter, being important elements of macroeconomics, in operation, as already noted, in conjunction with all other macroeconomic indicators.

At third, Macroeconomics as a science studying various problems. Based on the fact that fiscal policy is an element of macroeconomics, it is necessary to define it more specifically, its location and relationship to other elements of the macroeconomic framework. Without going into details, it should be noted that macroeconomic research include two sets of problems: Macroeconomic equilibrium and Applied macroeconomics, which studies the economic policies necessary to maintain equilibrium, which generalizes the practice and serves to macroeconomic forecasts - short and long term. Naturally, the fiscal policy within the scope of applied macroeconomics and works closely with all its other areas (monetary, structural, investment, etc.). These relationships make it necessary to harmonize all the indicators developed for a variety of macroeconomic policy.

At the same time, Indicators of fiscal policy affect the performance of other practical measures, and are dependent on the latter. Thus, the interaction between the indicators of fiscal and other economic policies is in the nature of coordination and occurs mainly horizontally. Another matter - the relationship between indicators of fiscal policy, taxes, expenses, and their balance, etc. - and the main macroeconomic indicators: GNP, GDP, NNP, ND, etc. This dependence has a character of strict subordination.

The two systems mentioned macroeconomic indicators - basic and related to fiscal policy are related as whole and part whereby the main macroeconomic indicators are primary, while the indicators of fiscal policy derived from them so as to serve the implementation of the main goals:

economic growth and economy stabilization, embodied in the GNP, NNP, etc. This, however, not excludes, but presupposes the opposite effect on the first second (derivatives of the primary).System analysis of quantitative parameters of these interdependencies, involves the use of macroeconomic calculations, the multiplier effect, i.e. single and different results from different directions necessarily the consequences.

At fourth, Dynamic macroeconomic models are directly related to the statistical measurement systems that allow for national accounting, which is a statistical system for measuring GDP and other macroeconomic indicators.

The organization is largely dependent on the state of science, which is called econometrics, and which includes components such as concrete mathematical model (system equation) for economic and mathematical statistics. But it is important for them and filling - a state of actual statistics, that is, the presence or absence of sufficiently reliable evidence of macroeconomic data, taken over a given period. Ability to use basic quantitative macroeconomic indicators, including those based on indicators of fiscal policy, there was in the middle of this century. The system of indicators was far enough in-depth study by world economic and financial science and the considerable number of examples of successful implementation in practice in different countries. True, it had not only supporters, but opponents are skeptical about the effectiveness of these techniques in economic life. However, it can be assumed based on real estimates that among the latter are mainly those who had overcome difficulties in learning the methodology and practice of fiscal policy in the complex realities of the modern economy. Their opinions can not, of course, neglect, but to overcome it can and should be at the expense of improving the scientific and analytical basis of fiscal measures, as well as training of financiers involved in fiscal policy.

These issues general and relevant for all modern countries. However, the extent of their practical solutions to the individual states of the world is different. The presence of the above and other components for systematic calculations, the immediate and long-term forecasts on the basis of stable methods (including methods of UN and international financial institutions) that provide

the basis for comparison of results, provide an opportunity to present the whole process of fiscal policy in the dynamics, adjusting its parameters as needed.

According to most economists, one of the main factors limiting the growth of industrial activity. To evaluate the effectiveness of fiscal policy may be from different perspectives, namely from the perspective of the entity (source taxation) and state (receiver of taxes). In terms of businesses and individuals evaluate the effectiveness of the problem of fiscal policy of the state is not of scientific interest, here acting as a primitive and straightforward logic: the more tax exemptions, the worse. Much more interesting and less unique situation is the assessment of fiscal policy in terms of the state. There are two possible lines of analysis: evaluation of the effectiveness of fiscal policy on industrial activity and economic system and in the fullness of the state budget. As a rule, these two assessment systems are in conflict and fiscal policy, effective with respect to the second criterion may be completely ineffective in the first. Furthermore, even within each of these criteria, fiscal policy can give ambiguous results, ie, in the development of the investigated processes is an inflection point.

5.2 Fiscal Policy and Economic Growth

Soubbotina (2004:133) indicated that economic growth is a quantitative change or an expansion in a countries' economy, measured as a percentage increase in gross national product (GNP) or in gross domestic product (GDP). However, Soubbotina differentiates between two kinds of growth: an extensively growth that is achieved by using more resources; e.g. physical, human, or natural capital; and intensive growth which is usually achieved by an efficient and productive use of the same resources. When for instance, economic growth occurs as a result of a wide usage of labor, it does not result in per capita income growth. However, economic growth will usually result in higher per capita income and improvement in peoples' standard of living, if those resources, including labor, are used intensively and productively.

In the light of this, fiscal policy can, to a great extent, be seen as one of the economic policies which it can influence efficiency of resource allocation in an economy to achieve

the planned level of economic growth. Based on many theoretical and empirical studies, fiscal policy can also be used to influence the economic growth generally. Taxation can reduce unproductive consumption and increases investment and productivity. The calculated public spending on infrastructure, investment and capital accumulation can also stimulate economic growth. According to (Goode 1984: 231), it has become generally accepted that the government has to take responsibility for enhancing economic development and speeding up growth. He adds, “Theories of economic growth and development are linked with strategies for advancing them.

These strategies, in top, have implications for government finance policies and the stability of available fiscal policies and the suitability of available fiscal instruments" (Vaish 1990:511) states that, in order to employ fiscal policy to accelerate the rate of growth, an efficient allocation of the fully employed resources to those activities which increase the level of production and effective capacity of the economy, is required. This can be achieved through full employment, real output that allocated to consumption is decreasing and that allocated to investment is increasing. However, the effect of fiscal policy variables on growth is a controversial issue. For examples, (Deane and White 1981: 8-10) point out that, while Keynesians claim that both monetary and fiscal policies have a sustained and significant impact on employment and output, monetarists maintain that "there is a short run trade-off between inflation and unemployment which seems to disappear in the long run; that inflation and balance of payment deficits are primarily monetary phenomena; so that a restrictive fiscal policy without a reduction in the rate of monetary expansion cannot reduce the rate of inflation (Gerson 1998) stated that, according to Endogenous growth models, numerous studies have been conducted to measure the impact of fiscal policy on output growth. The studies that were adopted on the expenditure side concluded that a high level of educational and health spending has a positive correlation with output growth. In addition, studies conducted in other countries found a positive relationship between public expenditure on infrastructure and growth.

On the other hand, the causality between government expenditure and economic growth, that is to say, which one causes the other, has been a controversial issue. While

the Keynesian hypothesis suggests that this causality runs from government expenditure to economic growth, (Wagner's law 1890), proposed a different direction of causality*. According to Wagnerians, in the process of economic development, government expenditures tend to expand relative to national income. There are three reasons to justify such a hypothesis:

- Economic development results in the spreading out of cultural and welfare expenditures.
- Public functions substitute for private activity.
- Government intervention may possibly be needed to manage and finance natural monopolies. In other words, expanding government spending is seen as the product of economic development and not vice-versa (Bird 1971) and (Abu-Qam 2003).

On the tax side, some empirical conclusions suggest that tax policy may have a significant impact on growth. However, other researchers such as (Myles 2000:141) found that the effect of tax on economic growth is very weak. It is also worth noting that, according to (Gerson 1998:5) while labour and capital are exogenous determinants in the production function, in the neoclassical models, such as those of Swan and Solow, they are marked endogenous variables in the models of recent economists such as Romer, Lucas and Uzawa.

5.3 Efficiency of Fiscal Policy in Developing Countries

It is accepted that, dependant on a number of determinations, the efficiency and effectiveness of fiscal policy varies from country to country. These determinants can be categorized into several groups such as political factors, administrative factors, factors associated with the economic system that applies in the country, factors resultant from the limitation of economic resources and finally the rate of economic growth. Given that these factors affect the performance of fiscal policy and hence determinate its efficiency and effectiveness in achieving its targets, and given that some of them play either a weak or even negative role in forming and implementing fiscal policy in developing countries, the efficiency and effectiveness of fiscal policy in developing countries will undoubtedly be less than that in developed countries.

According to (Tanzi 2001), the shortage of well-educated and well-trained staff in public administration in developing countries, reduces their ability to construct an efficient fiscal policy. Tanzi has gone further ahead and argues that the shortage of the sufficient data in general and statistical data, in particular, also handicaps policymakers in assessing the impact of major changes to the tax system, which again contributes to creating an inefficient tax structure. Moreover, Tanzi points out that one of the difficult challenges that developing countries face when they attempt to establish efficient tax systems is that the base for income tax is hard to calculate, since most of workers in these countries are usually employed in informal enterprises. They are rarely paid their wages regularly, and as a result their earnings fluctuate. In addition, such workers do not spend their earnings in large stores that record sales and maintain inventories, both of which ease the process of tax calculation.

No less a problem, than tax policy is an inefficient public spending policy. Although increasing public spending both in developed and developing countries is a known economic phenomenon, in developing countries government expenditure is not typically benefit-cost analyzed and thus, to a certain extent not effective. In addition, the growth ratio of such expenditure is mostly greater than that of national income growth. (Kweka and Morrissey 1999: 2), assert that these developing countries have been experiencing increasing levels of public expenditure over time. Such increases can mostly be associated with rising fiscal deficits. These soaring deficits tend to have an adverse effect on growth. Moreover, it is clear that this will limit the ability of these countries to raise sufficient revenue to finance their higher levels of expenditure. Given that there are many shortcomings in managing and rationalizing fiscal resources in developing countries, and given that their governments wish to continue with their development programmers, these countries are forced to finance budgetary deficits through borrowing. Nevertheless, as mentioned by (Goode 1984: 210-211) the poor debt management and unplanned and non benefit-cost analyzed borrowing in these countries, causes financial difficulties and economic instability which can be directly attributed to:

- Rising ratios of inflation;

- The high proportion of the budgetary revenues that must be allocated for debt service payment;
- A deterioration in the financial resources which inhibits the official lender from offering further resources. As a result, these countries are induced to seek finance from private creditors, which usually costs for more.

Consequently, a number of these countries are forced to seek debt relief. This is in fact no more than a mere temporary and weak "calmative" to the dilemma which has its own economic and even political and social disadvantages and drawbacks. Although, this applies to all developing countries, oil-producing countries to have their own unique difficulties with fiscal policy as will be discussed in the coming few lines.

5.4 Theoretical Convergences and Empirical evidence in the Study of fiscal policy and economic growth

Inspired by the theoretical studies on the relationship between fiscal policies and economic growth and the appearance of data sets from, for example, Summers and Heston (Barro and Lee,1994), in recent years much research has been performed, trying to find evidence for such a relation. We refer to (Temple 1999) for an excellent overview of this 'new growth evidence', as well as for an overview of the problems of this literature and the resulting research agenda which will probably occupy researchers for the next decades. In this section, attention will be restricted to a discussion of cross-section evidence on the relationship between government activities and economic growth (Easterly and Rebelo 1993) and Persson and Tabellini 1991). In the context of growth accounting studies, some material on the effect of fiscal policy can be found in, for example, (Maddison 1982). Another type of evidence comes from studies, aiming at estimating aggregate production functions that include some measures of public capital (Glomm and Ravikumar 1994).

This empirical literature was initiated by (Barro and Sala Martin1995). The general conclusions in these two studies are not essentially different). His study covered 98 countries over the period 1960-1985, and looked at the relationship in a cross section of countries between

the growth rate of real GDP per capita in that period and proxies for human capital, initial real GDP, investment in physical capital, measures of political stability, proxies for market distortions, the share of government consumption in GDP and the share of public investment.

A distinction is made between government consumption (excluding spending on education and defense, as these spending categories are more likely to add to private sector productivity) and public investment. As one would expect theoretically, a negative correlation between growth and government consumption is found. The argument being that government consumption has no direct effect on private sector productivity, but lowers savings and growth through the distorting effects of taxes. No significant relation was found between public investment and growth. Especially regarding endogenous growth however, it is important to bear in mind that, given its underlying assumptions on the absence of diminishing returns to capital, public investment may affect growth in an indirect, rather than in a direct manner. This holds for human capital as well as for normal capital. This kind of study has been done and redone in various, slightly different, ways.

The most important findings from the former study were that (i) measures of fiscal policies tend to be insignificantly related with growth, (ii) these measures often cause the coefficient on initial income to become insignificant, pointing at a strong correlation between initial income and fiscal policy measures5, (iii) growth and public investments in transport and communication are consistently positively related, while investments in transport and communication are not related with the investment rate, implying that the effect of public investment does not run via capital accumulation but via the efficiency of resource allocation.

In an extensive overview of the empirical growth literature, (Levine and Renelt 1992) address the question of the robustness of the relations that have been found. They do so by employing the Extreme Bounds Analysis (EBA), developed by (Leamer Levine and Renelt 1992).

The essence of the methodology is that one tests whether a certain relationship between two variables remains significant and is of the theoretically predicted sign, if one changes the

conditioning set of variables that is used in the regression. Note that there has been some discussion on the usefulness of the EBA-methodology (McAleer, 1994, and McAleer and Veall, 1989). Nevertheless, Levine and Renelt make an important point in their study and it is important to refer to their results in the context of the subject under consideration in the present paper.

They call a relationship between economic growth and a particular variable robust, if (i) it remains statistically significant, and (ii) it is of the theoretically predicted sign, when the conditioning set of variables in the regression equation changes. The main conclusion of their paper is that there is a positive and robust relation between economic growth and the investment share of GDP. Furthermore, the investment share is robustly correlated with the share of trade in GDP.

Finally, they find qualified support for the hypothesis of conditional convergence: including a measure of human capital, there is a robust negative correlation between growth and initial income. As far as government activities are concerned, they show that there are no robust relationships between growth and government consumption expenditures, total government expenditures, government expenditures net of spending on education and defense, central government surpluses, government capital formation as a ratio of GDP, government education expenditure as a ratio of GDP, government defense expenditure as a ratio of GDP and various tax measures (Levine and Zervos 1993). In this study, the initial analysis is extended by using, for example, data from (Easterly and Rebelo 1993). The conclusion of no robust relation between growth and fiscal policies remains to stand upright, however. Also, there turns out to be no robust relation of the above mentioned variables with the investment share in GDP. A final remark on this robustness analysis is that fiscal indicators enter with the predicted sign for many specifications when investment is included, while the indicators are insignificantly correlated with the investment ratio itself.

The general conclusion should thus be that, if there is any relation between growth and fiscal policy at all, it runs via efficiency of resource allocation and not via the accumulation of physical capital as implied by many of the existing theories.

Another source that casts some doubt on the potential of policy variables to explain variations in economic growth is a study by (Easterly 1993). They start with the notion that much of the existing growth literature explains differences in growth performances by focusing on differences in country characteristics such as savings rates, education levels and also various kinds of policy measures (this holds for all studies described in the previous sections). Starting from this point, it is convincingly shown in the paper that growth rates show little persistence over time. This conclusion holds independent of whether one determines persistence by means of simple or rank correlations or a cross plot of growth rates in two different periods for various countries. It also holds independent of the length of the period that is chosen. Having noted this, the persistence of country characteristics should be low as well in the case in which these characteristics should be able to explain the differences in growth performance of these countries over time. It is shown, however, that the persistence over time of various country characteristics like inflation, government consumption, assassinations, the trade share, the black market premium, initial income, enrollment rates, investment shares, etc. is large relative to the persistence of growth rates. The implication of this point is clear. Country characteristics are not well suited to explain the observed differences in growth performance of countries over time. In the remainder of the paper, it is shown that shock variables like terms of trade, external transfers, the change in the number of war-related casualties per capita on the national territory and the presence of a debt crisis can explain much of the low persistence in growth rates over time.

Especially the importance of the terms of trade is stressed. The effect of these shocks is partly direct but also partly indirect, as the shocks influence policy variables. Fiscal policies are thus probably partly endogenous. The conclusion of the paper, therefore, is that given the high persistence of country characteristics (among which are policy characteristics) and the low persistence of growth rates over time, one should be cautious in concluding that good growth performances can be attributed to good policy. This casts some doubt on the importance of fiscal policy for explaining growth performance.

Another driving force for growth (which may be influenced by policy) may be trade. Although theoretical discussions frequently focus on the relationship between international trade, knowledge spill-over's and growth, empirical research has typically examined the relationship between just exports and growth. One of the first convergence studies regressing per capita

income growth on initial level of per capita income was the one done by (Barro 1991). The sign on the initial per capita income only turned negative after adding school enrolment rates in the equation. This kind of result has been a typical feature in subsequent large sample studies by (Mankiw et al. 1992), (Knight et al.1993) and Barro and Lee (1994). All these studies showed no evidence of unconditional convergence, but evidence of conditional convergence when other factors affecting the growth of income per capita are allowed for, such as political instability, government activity, market distortions and trade variables (Thirlwall and Sanna, 1996). One of the best examples where free trade and factor mobility are associated with a narrowing down of regional differences in economic welfare can be found in the United States. Here, a regional per capita income convergence process is, according to Barro and Sala Martin (1992), taking place over the last hundred years.

An important empirical issue is the fact that, while traditional trade theory tends to emphasize that it is increased openness - and not necessarily the actual volume of trade – that should lead to an equalization of incomes, the evidence from that earlier work points to a very strong relationship between the two. A conclusion might be then that the level of trade may be seen as an appropriate proxy for the degree of openness of a country. Indeed, a variety of empirical studies has provided evidence that income convergence among countries seems to be a prevailing feature among countries that trade extensively with one another. Evidence, though weak, that country become increasingly open experience higher economic growth (rather than "just" convergence) was found by Kormendi and Meguire (1985). More recently, Hansen (1994) found an insignificant relation between exports and economic growth for individual country estimates.8 For the pooled sample the coefficient was positive and highly significant when using gross investment data, but insignificant when utilized net capital stock data were used. One of Hansen's conclusions is that the results reported in the literature regarding the positive effect of exports on economic growth are not robust.

They examined the robustness of export indicators used in past studies, while in addition they examined the relationship between growth and import indicators, total-trade indicators, and more direct estimates of trade policy and the distortion between domestic and international prices. In their extreme bound analysis Levine and Renelt hardly found a regression in which the

ratio of exports to GDP enters positively and significantly when investment is used as a conditioning variable (see the earlier discussion above on the EBA-method). However, as soon as investment is dropped from the list of conditioning variables the ratio of export proves to be robustly positively related with economic growth. Also, a robustly positive correlation between the share of trade in GDP and the share of investment in GDP was found.

These results suggest an important two-link chain between trade and growth through investment and were taken by Levine and Renelt as an indication that, in contrast to standard theory, the relationship between trade and growth may be based on enhanced resource accumulation and not necessarily on the improved allocation of resources.

Levine and Renelt also examined more direct measures like the measure of openness, constructed by (Leamer 1988) by using the Hekscher, Ohlin-Vanek trade model. This index represents the difference between the actual and predicted level of trade, a higher value of this index representing more openness. Levine and Renelt did not find this index to be robustly correlated with GDP per capita growth. They did, however, find a robust, positive correlation between the index and the investment share.

From the above discussion, it will be evident that the empirical literature on the effects of government spending, taxation, trade and openness is fraught with problems. The problems increase further when attention is shifted to the effects of non-financial conditions and prevalent political circumstances. In the literature concerned with these issues, the discrepancy between theoretical coverage and their respective empirical implementations are even wider, the main problem often being the search for a variable which can be taken as an appropriate proxy for the political circumstance under consideration and which can also be represented by a quantifiable measure. The discussion that has enrolled on these issues is extensive.

We take, as an for example, the measurement of the degree of stability of the political system. In order to define this degree, (Barro 1991) included two variables from Bank's (1979) data set, i.e., the number of revolutions and coups per year and the number per million populations of political assassinations per year. The idea behind the inclusion of these variables is

evident. Given an increase in the chance of being replaced within a sufficiently small period of time, a political leader is likely to be more inclined to carry on expropriatory actions, since the costs can be passed over to successors. When one bears in mind that mechanisms for protecting property and contractual rights are already fragile in a period of political instability, especially when instability is cause by non-constitutional events, it is straightforward that high numbers of revolutions, coups and assassinations will cause a reduction and reallocation of investment and will thus prove to have a negative influence on economic growth.

Barro empirically tested his predictions and actually did find a negative relation between his proxies for political instability and economic growth, though the coefficients still proved to be negative when the investment/income ratio was held constant (see the previous discussion on these issues). Barro's approach has been heavily criticized by, for example, Knack and Keefer (1995).

At first, Barro's proxies for political instability are restricted to non-constitutional political disturbances. This limits the coverage of his predictions, since the actions of those leaders who face a higher risk of losing power in a constitutional way are not captured by these proxies.

At second, the proxy itself may be a misleading one. The correlation between revolutions, coups and assassinations and the security of property rights might be not as high as expected. Several examples of countries contradict such a strong relation. Some countries like Libya and Turkey score at least as poorly on Barro's measures of political violence.

At third, the possible manner in which government and institutions affect property rights is not restricted to political instability. The latter is a relatively crude indicator and is not covering much of the relevant influences.

At fourth, there is a simultaneity problem. Economic performance on its turn seems to have an important part in the appearance of political violence. Barro himself already mentioned

this possibility in an attempt to explain high correlation in the absence of decreasing investment ratios.

Another example is related to the measurement of political rights and civil liberties. (Gastil, 1979) has constructed indices of these indicators for most countries in the world. These indices are ordinal measures which run from 1 (most free) to 7 (least free). Political rights are rights to participate meaningfully in the political process. In a democracy this means the right of all adults to vote and compete for public office, and for elected representatives to have a decisive vote on public policies. Civil liberties are rights to free expression, to organize or demonstrate, as well as a degree of autonomy such as provided by freedom of religion, education, travel, and other personal rights. From these two indices Gastil derives the status of political freedom for a country as free, partially free, or not free. Empirically, Gastil's contribution has been used and interpreted different ways. Authors like (Kormendi and Meguire 1985) treat the index of civil liberties as an additional explanatory variable for economic growth (finding a positive relation between the degree of civil liberty and economic growth, while the effect on growth operates mainly through the investment channel).

In a more recent paper, (Guseh 1997) uses Gastil's classifications to transform them into dummy variables to compensate for extreme capitalist and socialist economies. Again, Knack and Keefer have adopted a more skeptic attitude to the explanatory value of the indices. They argue that they concern aggregate measures which have been compiled without the explicit aim of measuring the security of property rights. For many purposes, these variables are of great importance. However, many of the dimensions are not closely related to property rights.

Further critical remarks by Knack and Keefer concern the possibility of considerable measurement error in evaluating the particular institutions thought to affect property rights, contracting rights, and the efficiency with which public goods are allocated, since the indices are not dis-aggregated and the implicit weights attached to the various dimensions may vary over time and between countries.

As a means to resolve the problems with measuring 'political circumstances', Knack and Keefer (1995) come up with an alternative set of institutional indicators compiled by two private international investment risk services, viz. International Country Risk Guide (ICRG) and Business Environment Risk Intelligence (BERI).

The ICRG variables they use consist of expropriation risk, rule of law, repudiation of contracts by government, corruption in government and quality of bureaucracy. Expropriation risk, rule of law and repudiation are interpreted by Knack and Keefer as proxies for the security of property and contract rights. A low score on one or more of these variables means that countries are likely to suffer a reduction in the quantity and efficiency of physical and perhaps even human capital investment. Corruption in government and quality of bureaucracy are taken as proxies for the general efficiency with which government services are provided, and for the extent and damage of rent-seeking behavior. A low score on these variables implies a situation in which other than efficiency criteria are likely to prevail with respect to the determination of government policies and the allocation of public goods. Moreover, the fact that a corrupt government and a low quality bureaucracy will negatively affect security of property rights may result in a diminishing quantity and efficiency of capital investment.

The BERI variables used by Knack and Keefer consist of contract enforceability, infrastructure quality, nationalization potential and bureaucratic delays with the latter two paralleling the ICRG variables expropriation risk and quality of bureaucracy. Contract enforceability could be taken as a proxy for the security of contract rights with investment consequences as already mentioned above. The variable of infrastructure quality reflects the efficiency with which governments allocate public goods. One of the conclusions of Knack and Keefer is that the correlation between the ICRG and BERI variables on one hand and Barro's political violence variables and Gastil's political and civil liberties indices on the other hand are relatively low. This indicates (at least) that the ICRG and BERI variables contain a substantial amount of information not being found in the other variables.

In this chapter we have reviewed some of the central studies yielding insights into the empirical relationships between fiscal policy, trade, institutions and economic growth. Some general remarks on this type of cross-sectional empirical studies are in place.

At first, all studies face serious measurement problems. There are neither data available on marginal tax rates and subsidies, nor are there reliable data on the levels of public investment.(9 Easterly and (Rebelo 1993) try to overcome this problem by constructing the marginal tax rates in four different ways. For the problems with each of these measures, see Easterly and Rebelo (1993). Also for public investment, various measures are constructed).

At second, the studies face a potential problem of reverse causation. We already noted the correlation between initial income and fiscal policy measures as implied by the Barro-type of equations. More extensive studies indeed show a statistically significant relationship between initial income, as a measure for the level of development, and fiscal policy measures (Easterly and Rebelo 1993).

At third, the relationship between government activities and economic growth is complex and likely to be non-linear. The finding of no significant relationship between growth and government spending might therefore have to do with the specific (non-linear) form of the relation. One way to test for this could be to add taxes in a non-linear fashion to the regression equation, in order to be able to grasp the complex relations between growth and fiscal policies (Levine and Renelt 1992) make this point forcefully. Nevertheless, they do not extend their analysis to deal with the non-linearities (which could be done by adding, for example, quadratic terms to the regression equation).

At fourth, the paper by (Levine and Renelt 1992) shows rather convincingly that none of the results on the relation between fiscal policy, trade, institutions and economic growth is robust. This can be seen as an econometric problem that the empirical literature in this field of research has to face and for which no apparent solution seems to be available. If any general conclusion can be drawn from the above described studies, it should be that there is no unanimity on the relationship between fiscal policy and economic growth. Maybe this should not be surprising in a

research area where so few testable implications follow from the underlying theories, in which non-linearities and complex trade-offs seem to be especially important, and in which good and reliable data are scarce.

A fifth problem is that hardly any evidence exists on the efficiency of government spending. Finally, we should mention that many of the results that have been obtained are not easily interpretable. We mentioned, for example, that the black market premium on foreign exchange has been used as a variable by Barro (see, Barro and Sala Martin 1995) to measure the effects of economic policy. It is however not at all clear how to interpret the negative relation between growth and the black market premium that has been found, not to speak even about formulating policy recommendations on the basis of this type of evidence.

Drawing policy lessons on the basis of cross country regression evidence should in other words be done with the utmost caution and recommendations should be treated with sound and fair skepticism.

5.5 Formulation of the problem and methodology

Economic researches indicate that on top of debt stability, role of sound fiscal policies is also quite significant in achieving macroeconomic stability if supported by complementary monetary policies, since sound fiscal position is found to be key factor for sustained growth and poverty reduction. Therefore, stabilization programs are expected to result in a medium term sustainable path for growth through the settlement of economic and fiscal problems. The recent studies show that IMF supported stabilization programs are successful in short term macroeconomic stability (IMF, 2003).

The idea behind this argument is that accumulating and mobilizing enough physical and human capital required for the growth can only be achieved through national savings. Since the private savings are generally low in developing countries, the only alternative is to induce public savings through tight fiscal policies that will increase in public sector revenues and reduce less productive expenditures. The public sector should follow the basic rules during the

implementation of the growth promoting policies. Accordingly the public sector activities should support the private sector rather than to compete with. Moreover, the tax system and policies should not hinder the economic growth through distorting decision mechanism of the private sector. Although the net effect of tight fiscal policies on growth is uncertain, until 1990s economists paid more attention to negative Keynesian effects. Keynesian approach assumes that fiscal consolidation undermines economic growth because it leads to a reduction in aggregate demand either directly through reduction in public consumption or investment, or indirectly reduction in household consumption through higher taxes or lower subsidies. Therefore, it suggests a negative relation between fiscal consolidation and growth.

However, in 1990s many studies supported the idea that fiscal contraction may actually stimulate economic output. Therefore, the terminology of expansionary fiscal policies started to be used in economic literature as contractionary fiscal policies found out to be positively related with growth for some countries in 1990s.The economic literature presents different theories to explain how fiscal contraction can be expansionary. Other than the conventional crowding-out effect on private investment, and wealth effect on consumption, more attention has been paid to favorable expectation effect and credibility effect. Giavazzi 1990 and, Blanchard 1990, and Bertole 1993 mention about expectation effect. This theory suggests that reductions in government spending can be expansionary since it will reduce private sector tax expectations. Therefore forward looking consumers and investors may increase their expenditures today if they anticipate tax reduction in the long run due to cuts in today's expenditure and this will offset the negative impact of the fiscal consolidation. This theory implies that the change in expectations could be expansionary when the economies have high debt-to-GNP ratios. As government debt increases with the fiscal expansion, risk premium which reflects the default risk or increased inflationary risk will reinforce crowding out effects through interest rate. Under a credible commitment to debt reduction through permanent fiscal contraction, private spending can respond positively through lower risk premium. Therefore, a discretionary fiscal policy stance may have a significant credibility effect on interest rates which would stimulate private investment and consumption. This is one of the main reasons for expansionary fiscal contractions given by Giavazzi 1990.

Other than the above mentioned two effects, the efficiency argument plays an important role in this discussion since it suggests that the total factor productivity of the economy will increase since more resources will be available for the more productive private sector, and the public sector spending should be channeled to growth-inducing areas, such as education, health, and infrastructure. Higher growth will generate more fiscal resources to be spent on growth-inducing expenditures (multiplier effect).

The expansionary fiscal contraction defined as positive impact of fiscal tightening on economic output, has been faced among developed countries, like Denmark and Ireland as illustrated by (Giavazzi 1990). Turkey has been cited as a developing country example of expansionary fiscal contractions according to a recent IMF study titled "Fiscal Adjustment for Stability and Growth" (Daniel, 2006). The study lists following features for the successful expansionary fiscal contractions:

- Fiscal consolidation reduces high public debt. With the increased credibility of the government policies the threat of higher taxes, and risk premium on interest falls which stimulate aggregate demand.

- Size and quality of fiscal adjustment determines the success of the consolidation. If the consolidation is coming from the expenditure side; mainly from cutting in transfers and wages are tend to be more associated with better growth.

- The impact of the fiscal adjustment works either through private consumption and investment or through factor productivity. After understanding the benefit of fiscal adjustment, the question of what drives countries to implement fiscal contraction becomes an important subject.

IMF's World Economic Outlook 2003 examines fiscal policy function for a group of emerging market economies. The level of public debt and its unsustainable trend defined as increasing public debt to GNP ratio compared to the previous year found to be as the main driving factor. Key finding of the study is that primary surpluses respond to increasing debt levels, and this response is stronger at high debt levels for industrial countries. However, in

emerging market economies, the response of fiscal policy weakens as the debt-to-GDP ratio increases. A recent study undertaken by Abiad 2005 also shows that fiscal effort is a function of the lagged debt stock but it tends to weaken after a debt threshold of 50 percent of GDP is breached. Moreover, fiscal effort is constrained both at very low and high levels of revenue. Also, primary balances rise when economy grows above its potential and in the presence of IMF-supported program.

According to the study of (Alesina and Perotti 1995), successful fiscal adjustment depends upon the deductions from the transfer payments and personnel payments without a need to raise taxes. Alesina and Perotti analyzed the successful and unsuccessful programs according to their fiscal impulse method and concluded that the most significant factor for the success of the programs is the level of implementation of the policies that brings expenditure cuts.

Subsequently, Perotti 1998 stated that at least 70 percent of reduction in the budget deficit should be generated through expenditures in order to have a successful fiscal adjustment. Therefore success of the fiscal adjustment in the medium term found to be contingent to the level and strength of the expenditure measures. In its 2004 study, Von Hagen stated that for European Union (EU) Acceding Countries where fiscal adjustment is defined as an expenditure-based adjustment if more than 50 percent of the reduction in deficit is created from the expenditures. It was found out that 11 out of 19 significant fiscal expansions were due to the increase in expenditures. The study concluded that the weak fiscal discipline was resulted from the insufficient control over the public expenditures in general terms. In fact many theoretical studies carried out in the 1990's show that measures against expenditures (reduction) lie behind a successful fiscal program.

According to the study of Alesina and Perotti 1996 a successful fiscal adjustment depends on the deductions from the transfer payments and personnel payments without a need to increase taxes. In this study, they analyzed 20 OECD countries excluding Turkey between the years 1960 and 1992. The study seeks answers to two questions. The first question is how the change (expenditure deductions, tax increments) observed in the composition of the fiscal adjustment

would affect the success of the fiscal adjustment. The second one is what the macroeconomic outcomes are in the successful and unsuccessful fiscal adjustment examples.

All these studies and others have a common finding about the successful fiscal adjustment. It depends on taking efficient expenditure measures rather than relying on the revenue side improvements. In other words, the countries which limit their expenditures with a sustainable program would be successful in fiscal adjustment. Like composition of the fiscal adjustment, cyclicality of fiscal adjustment also plays an important role in terms of the success of the adjustment. The ideal fiscal policy should be countercyclical, as neoclassical and Keynesian approach suggest, that means fiscal deficit declining in the upturns adding to aggregate demand, and increasing during the economic contractions. In practice, in many developing countries fiscal policy reflects a pro-cyclical nature. Therefore government spending as a share of GDP goes up in booms and downs in recessions, while deficits increase in economic upturns and decrease in downturns. The Alesina and Tabellini 2005 study which covers 87 countries including Turkey between 1960-1999 period (for Turkey 1987-1997 period) found out that during this period most of the developing countries fiscal stance was pro-cyclical with negative fiscal multiplier which implies that a cyclical boom is associated with a decrease in fiscal surplus. Unlike developing countries, the fiscal stance in OECD countries found out to be counter-cyclical.

The reasons for implementing suboptimal pro-cyclical fiscal position has been listed as financing constraints, lack of appropriate automatic stabilizer and political pressures may not let the governments to implement counter-cyclical fiscal policies. Liquidity constraints could play a role in implementing countercyclical fiscal policies. During economic contraction periods, the risk premium of the countries often increases because of the reduction in the market confidence which led to intensified borrowing constraints. The difficulties in access to international credit markets supported by increased cost of borrowing make it impossible to run countercyclical fiscal policies especially for the developing countries.

Size, structure and composition of the budget in developing countries may add to further difficulties in implementing countercyclical fiscal policies in developing countries. As pointed out by Braun (2000), the larger size of the government in developing countries can explain the

difference in the level of cyclicality between the developing and developed countries. Moreover, the level of transfer expenditures and subsidies also plays a role in different patterns of cyclical behaviors of developing and developed countries. Unlike the developed countries, developing countries have few automatic stabilizers built into their budget. This feature of the developing countries' budget structure makes the implementation of countercyclical fiscal policies more difficult compared to developed countries. As stated by Gavin and Perotti 1997 Latin American Countries' transfer and subsidies expenditures are much less than the OECD economies. The share of transfers and subsidies in total government expenditures in developing countries is around 24 percent compared to 42 percent of developed countries.

As stated in a recent study of the OECD "Challenges to Fiscal Adjustment in Latin America Countries", most of the Latin American countries achieved considerable progress in the public finances. This has been essential for macroeconomic sustainability. However, despite the progress, many challenges remain. On expenditure, the overriding challenge is increasing flexibility of the allocation of budget resources, and improving quality of spending. This also requires dealing with developing a cost effective social safety systems to protect vulnerable groups against the negative effects of the macroeconomic volatility, meeting the need for public investment in infrastructure, and dealing with the expenditure rigidities.

From the revenue side, the main challenges are tax broadening, reducing reliance on distorting taxes such as the ones on financial transactions, and improving structure of the tax administration. On the public debt management, the main challenge is for governments to keep indebtedness at a sustainable level. The issue in public debt is not only the level of the debt but also its structure, including currency composition, maturity and indexation mechanism.

The same study presents general trends and stylized facts about fiscal adjustment in Latin America since 1990s, with special reference to Argentina, Brazil, Chile, and Mexico. It emphasizes considerable diversity in the size and scope of government among these countries, as well as in the level of public debt. In most countries, the composition of fiscal adjustment tends towards increasing revenue and compressing public investment rather than reducing current expenditures, which is likely to have an effect on the sustainability of the adjustment over time.

Moreover, in these countries, fiscal consolidation shows biasness towards pro cyclicality which reflects high indebtedness, vulnerability to shocks in bad times and failure to contain expenditures in good times.

As a result, the discussions in the literature suggest that successful fiscal program should give enough emphasize on the expenditure cutting measures since revenue side increases can not be sustainable over the medium term. Moreover, although it is suggested to run counter-cyclical fiscal policies for reducing volatility in the economy, some structural issues in developing countries prevents these countries to implement counter-cyclical fiscal policies. Of course, level of debt, economic performance above the potential growth, and IMF supported programs found out to be triggers for successful fiscal adjustment.

5.6 Systemic governmental effects on economic growth

So far, attention has been restricted to the government as an economic agent that collects money via taxation and spends it on education, provision of subsidies, infrastructure, government consumption, etc. And we saw in the previous section that these activities may affect economic growth along various channels. One may, however, also identify other mechanisms through which governments may influence economic growth which may be referred to as non-financial conditions or prevailing domestic, political or institutional arrangements through which the government may, directly or indirectly, affect economic growth (see for example the work by North, 1991, and Olson, 1982) for rich and extensive discussions on these issues.

In a way, these conditions with flanking policies to match them may be regarded as public goods in that they have indivisible consequences for whole nations at the least. As far as policy is concerned, the main issue appears to be not only that of a possibly positive outcome in quantitative measures of the accumulation of expenditure effects and fiscal effects, but also that of a possible outweigh of the efficiency-reducing forms of government intervention (e.g. public sector enterprises, price and quantitative controls) by efficiency-enhancing roles of the government (e.g., addressing market failures, providing social and economic infrastructure), resulting in a net positive impact on overall economic performance and hence on growth. The

following contribution will shortly describe some of the channels that have attained a distinct position with regard to the frequency in which they, more or less successfully, have been implemented empirically.

Although possible distortion effects of government taxation have been pointed out in the previous section, it was not yet dealt with exhaustively. Government taxation is not only a means of raising revenues to back up expenditures, but it is also an instrument through which income in equality and labor markets may be affected. An obvious result of an increase in effective taxes on labor would be that of an increase in labor costs. According to Daveri and Tabellini 1997, an excessively high cost of labor is the main cause of an increasing rate of unemployment as well as the slowdown in economic growth in Europe nowadays. Given a non-competitive nature of labor markets, an exogenous and permanent increase of labor costs will force firms to substitute capital for labor, which results in a decrease of the marginal product of capital over long periods of time; this in turn will diminish the incentive to accumulate and thus to grow.

Governments also play an important role in influencing the distribution of income over various agents in the economy. The importance of income distribution has, for example, been underlined by (Persson and Tabellini 1991). They show that inequality is harmful to growth, the reason being that a society with more inequality, where distributional conflicts are important, is characterized by political decisions that allow private individuals to appropriate less of the returns on accumulation of physical and human capital. These societies are consequently faced with lower rates of capital accumulation, leading to lower growth rates. In an indirect way, fiscal policies aimed at reducing inequality can thus be said to be favorable to growth. On the other hand, by providing generous social benefits, governments may foster unemployment which in turn may be bad for economic growth (Daveri and Tabellini, 1998), and (Groot, 1998).

Governments are also important in providing a stable and legal framework in which property rights are clearly defined (now and in the future), and also a monetary environment with stable prices. An interesting point of view regarding this matter has been offered by (Olson 1982) he argues that the longer a society enjoys political stability, the more likely it is to develop powerful special-interest organizations that in turn make it economically less efficient. They will

have both an incentive to make the society in which they operate more prosperous, and an incentive to redistribute income to their members with as little excess burden as possible. In practice, these distributional organizations are bound to slow down a society's capacity to adopt new technologies and to reallocate resources in response to changing conditions, and thereby will reduce the rate of economic growth. The accumulation of distributional institutions and agencies will, due to an increasing complexity of regulation, bureaucracy, and political intervention in markets, cause an increasing importance of an active role of the government.

Another factor by which the government may affect economic growth in an immaterial manner is the degree to which people within a political system have (political) freedom. (Friedman 1962) and (Hayek 1944) among others, have argued that freedom should facilitate economic performance and hence growth. Others (proponents of a planned economy) have argued that a country requires autocratic control and reduced freedom in order to grow rapidly. (Olson 1990), for example, argues that countries which have had democratic freedom of organization without any upheaval or invasion for relatively long periods, will suffer most from growth-repressing organizations and combinations. Moreover, countries whose distributional coalitions, emerged as described above, have been emasculated or abolished by totalitarian government or foreign occupation should grow relatively quickly after a free and stable legal order is established.

Finally, a factor in which government involvement meets regional perspectives is the degree of openness of an economic system. With respect to economic growth, attention may be focused on the manner in which openness affects convergence across countries (Puga, 1999).

The importance of trade, capital flows, the diffusion of product and process innovations and net migration at the interregional and international levels suggest that spatial interactions need to be considered, both in terms of their direct effects on growth and their effects on technological change. In the neo-classical growth model, trade is not necessary for income convergence to take place, though a free flow of capital may speed up the process (Barro, Mankiw and Sala Martin, 1995). In its essence, endogenous growth theory predicts -in the absence of cross-country knowledge spillovers - divergence, by relaxing the assumption of

diminishing returns to capital, due to which the ratio of saving or investment to GDP also matters for long-run growth (Baldwin, 1999).

The introduction of endogenous technological change may be a disequilibrating factor in a trade model. Although Romer 1991 showed an increased average growth rate resulting from an integration of regional economies, it is possible that a specialization based on comparative advantage leads to sub-optimal investment in R&D activities by resource rich economies (Grossman and Helpman, 1994). From a policy perspective, the question which region has a comparative advantage in the R&D sector is relevant here since it may be the level of activity in this specific sector that provides learning by doing spillover benefit for all regions. Hence, an increase in the supply of the resource used intensively in the knowledge generating sector will obviously speed up growth. Despite all this, the disequilibrium issue here comes down to the fact that the regions that produce the good which enjoys a faster technological change will, in the absence of knowledge spill-over's, continue to have a higher growth rate, resulting in a continuing change in the terms of trade.

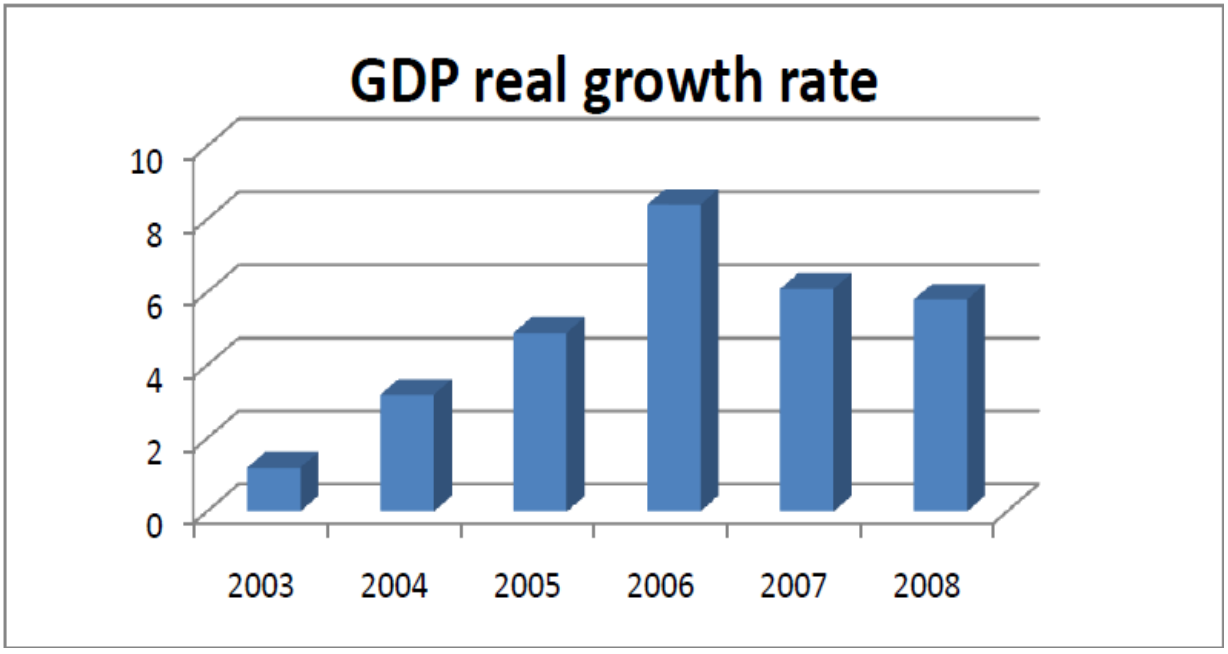
6. Description of fiscal policy in Turkey and Libya

6.1 Fiscal Policy in Libya: Problems and Prospects

6.1.1. Overview of the Libyan Economy

According to Ghattour (2004) and the World Factbook (CIA, 2004), the Libyan economy relies primarily upon oil revenues, which contribute practically all the export earning and about one-quarter of GDP. These oil revenues, combined with a small population, give Libya the advantage of the highest per capita GDP in Africa. In addition, there is strong evidence to suggest that Libya has made a great deal of progress on economic reform as part of a broader campaign to reintegrate the country into the international fold; Libyan officials have announced a new strategy to liberate its economy and have taken significant steps toward privatization (CIA, 2005). The Libyan General People´s Congress (GPC) has also decided to completely open its doors to local and foreign investment and to free such investors from taxes, as well as to provide more facilities and opportunities to industries such as tourism, fishing and agriculture with the aim of diversifying the economy away from oil (Geblaoui, 2004). Despite the World economic crisis, Libya´s GDP growth rate achieved 6.1% and 5.8% in 2006 and 2007 respectively (Indixmundi.com, 2009) (see Figure 8),

Figure 6: Libya's GDP real growth rate from 2003-2008

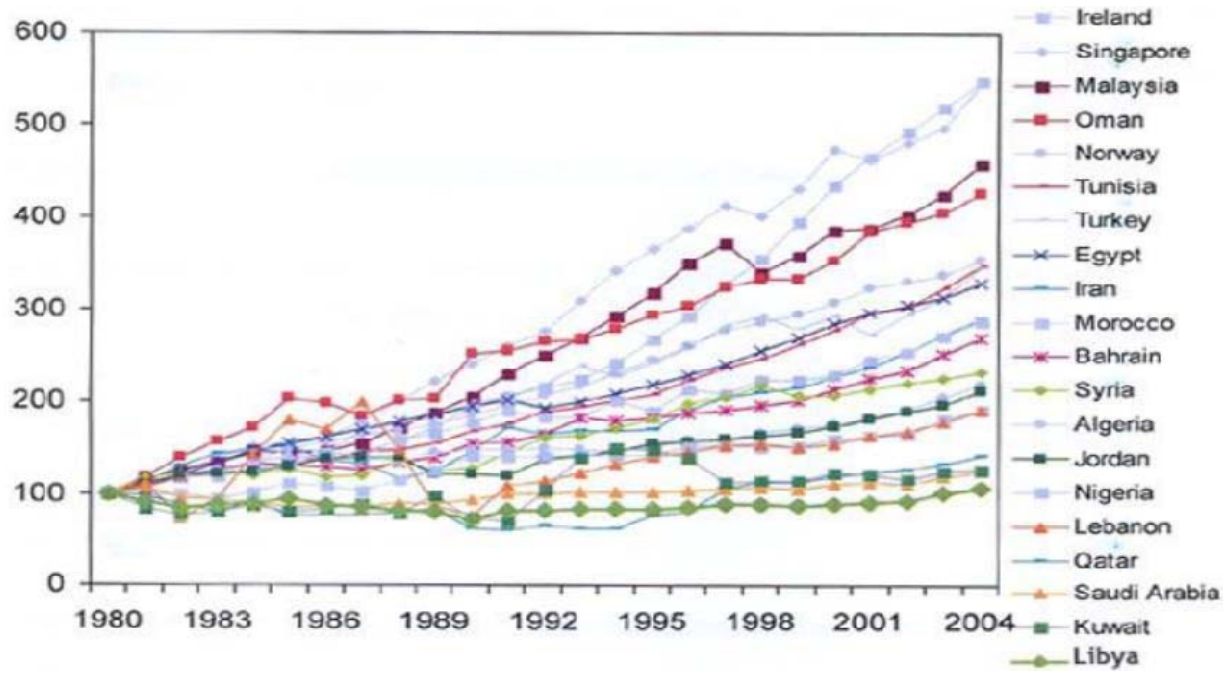


Source: Indixmundi.com (2009)

Oil export revenues account for over 95% of Libyans hard currency earnings (and 75% of government receipts). With higher oil prices since 1999, the Libyan oil export revenues increased to $18.1 billion in 2004 and are expected to reach $19.4 billion in 2005, up from $5.9 billion in 1998. Libya is hoping to reduce its dependency on oil as the country´s sole source of national income, and to increase investment in profitable sectors such as agriculture, tourism, fisheries, mining and natural gas (Energy Information Administration Report, 2005).

According to the Libyan Economic Development Board (EDB) (2007), despite a strong economy, the prosperity of Libyan people is low compared to other countries, including MENA countries. Economic analysts attribute this to the hard economic environment over many years combined with the rapid growth of the population. Figure 9 shows the rate of the Libyan people´s prosperity. The EDB is confident that Libya has a good opportunity to improve its economy and provide the people with prosperity, and significant steps have already been taken in this regard.

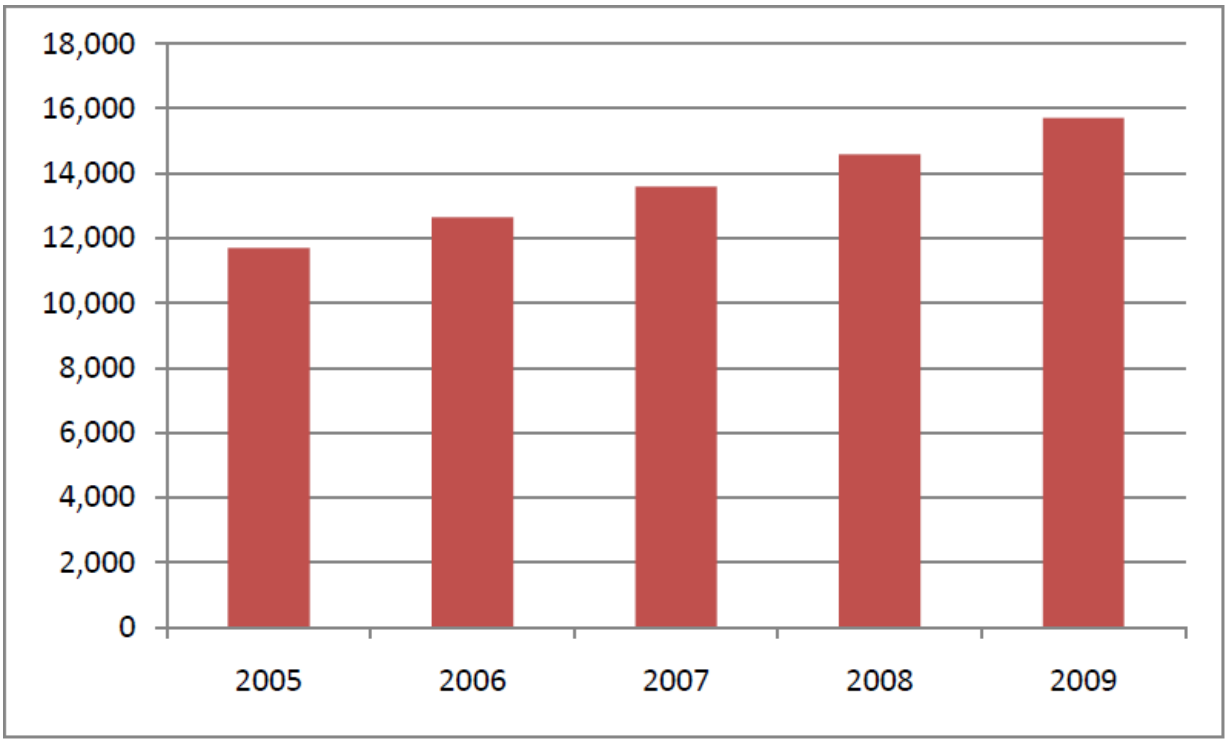
Figure 7: GPD per capita PPP adjusted, 1980- 2004



Source: IMF, monitor analysis, cited in EDB (2007, online)

According to Economy Watch.com (2009), Libya´s GDP per capita has increased from $14,593 to $15,709, which has made Libya jump to number 57 in the world rankings, according to the GDP per capita (PPP) in US Dollars in 2008. Figure 10 shows the stable growth of Libyan GDP per capita.

Figure 8: Libya's GDP per capita (US$)



Source: Economy Whatch.com (2009)

Libyan's economy faces the problem of all oil dependent economies, namely that its meager diversification puts the country's economic growth, government investment programs and macroeconomic indicators at the mercy of fluctuations in the energy market.

Another problem, typical of countries making the transition to a market economy, is that its weak institutions, unsuitable legal system Libya was for many years subject to international economic sanctions imposed by the United Nations (1992-99) and the United States (1986-2006). The overall result has been Libya's isolation from world trade, keeping away the foreign direct investment (FDI) that such a country traditionally needs for its oil and gas industry.

Exploration and development in the oil and gas sector suffered during the years of international sanctions. Production between the 1980s and 2003 was not matched by new

exploration due to lack of foreign and local investment, shortage of spare parts and poor maintenance of existing oilfields. Production capacity fell from3.3million barrels a day (b/d) in 1970 to 1.73 million in 2007.

The lifting of sanctions, especially by the United States, has opened the way for new exploration by foreign firms and upgrading and better maintenance of old oilfields. This enabled Libya to increase its estimated 15.4 billion barrels of reserves in both the short and long terms and to boost oil and gas production and export capacity. The government has drafted an ambitious 2008-12 programmed to make up for reserves exhausted between 1980 and 2005. New exploration permits will be granted in an effort to increase reserves to a level compatible with the country's post-2015 production strategy. The target is to have new reserves of 6.5 billion barrels by 2010, allowing production of 2.9million b/d over the 2010-15 periods.

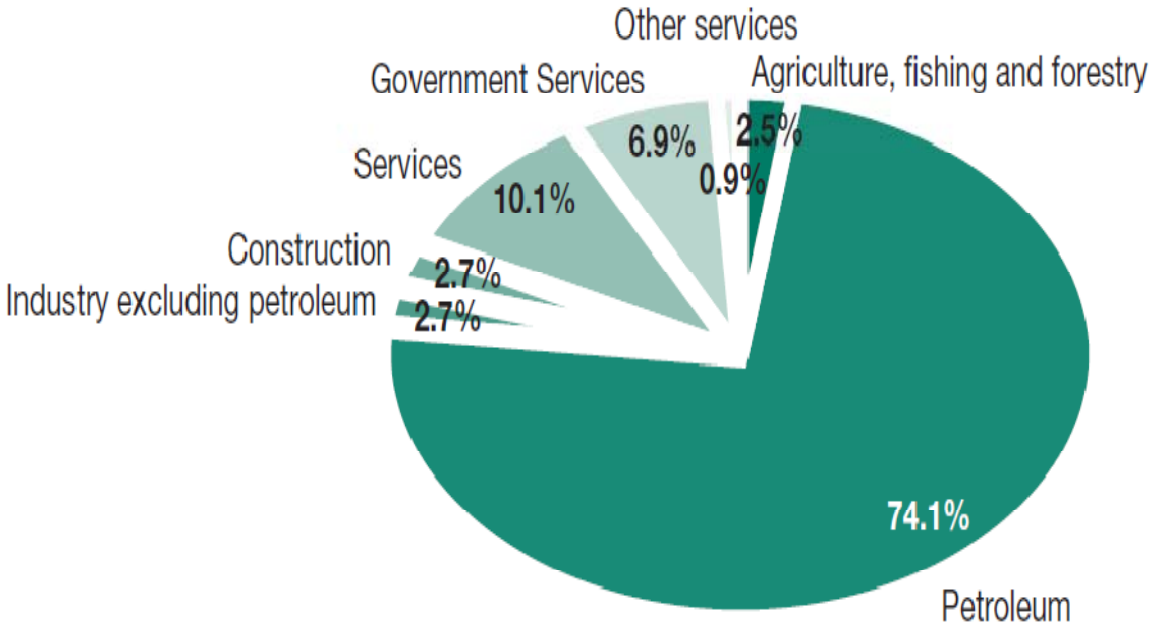
During the past few years, after the sanction period and particularly in 2007, Libya has enjoyed higher oil prices, further eased exchange controls and liberalized foreign trade, restructured the public sector and the banking system and focused more on privatization. Inflation has also returned, after a period of deflation from1999 to 2005.

The country's economic growth is driven by government investment and spending, along with imports, and is far from being diversified or independent of the energy sector. Real GDP growth since 1992 has followed oil prices and export earnings and was an estimated 6.8 per cent in 2007 (5.6 per cent in 2006), with 8 per cent predicted for 2008 if oil prices continue to soar.

Dependence on the oil and gas sector is still growing, with the price of Libya's oil at USD 63 a barrel in 2007 and probably higher in 2008. Oil and gas provided more than 99 per cent of all export earnings and 78 per cent of government revenue in 2007. Such enormous dependence makes the economy vulnerable to oil price changes, but since prospects are very good, government investment programs will probably attract substantial funding between 2008 and 2012.

The oil and gas sector dominates Libya's growth, contributing 74 per cent of GDP in 2006, a dramatic turnaround since 2001, when the non-oil/gas sector accounted for 62.5 per cent of GDP (see figure 11).The oil and gas sector contributed 1.86 percentage points (22 per cent) of GDP growth in 2006.

Figure 9: Libya GDP by sector (percentage)



Source: Libyan National Statistics Office data, 2006

The government has been trying to diversify the economy for the past few years, with no tangible results, but the effort remains an important part of the country's new economic strategy. Private sector activity may partly explain the recovery in the non-oil/gas sector, but productive services and infrastructure (excluding construction) in fact account for half the non-oil/gas sector's growth and these sectors are heavily dependent on government investment and other activity linked to the national budget. The traded goods sector (excluding oil and gas) contributes very little to growth, illustrating Libya' real problems of diversification. Agriculture, mining and manufacturing accounted respectively for only 0.24, 0.29 and 0.11 percentage points (about 10

per cent in total) of GDP growth in 2006, yet agriculture gets 7 per cent of the development budget and industry 16 per cent.

6.1.2. Fiscal Policy and government spending in Libya

6.1.2.1. Fiscal Policy

Libya has abundant liquidity due to oil and gas revenue. The effects of this liquidity are mainly visible in budgetary and monetary policy and in Libya's external financial position.

The rise in oil and gas revenue ended the budget deficits of the 1990s. The 2006 budget surplus was 39 per cent of GDP and oil and gas revenue 66.3 per cent of GDP, compared with just 5.4 per cent contributed by the non-oil/gas sector. Higher oil prices will further increase the surplus and the dominance of oil and gas revenue over other income.

The healthy budget situation enabled the government in 2004 to repay its debts to the banks and to stop printing money to finance public spending. Taxes on production were replaced by a sales tax (15-25 per cent) as a first step towards a value added tax; the sales tax also applies to imports, on top of the existing 4 per cent import tax (See table 2).

Table 1: Public Finance in Libya (percentage of GDP)

	1999	2004	2005	2006	2007(e)	2008(p)	2009(p)
Total revenue and grantsa	**35.5**	**58.5**	**68.6**	**71.7**	**73.6**	**79.2**	**80.1**
Tax revenue	17.7	4.1	2.8	2.7	2.9	3.0	3.4
Oil revenue	15.6	50.6	63.7	66.3	68.1	73.4	74.0
Total expenditure and net lendinga	**29.5**	**43.3**	**34.9**	**32.6**	**33.5**	**31.9**	**34.1**
Current expenditure	23.3	25.6	15.1	14.8	14.9	13.9	14.7
Excluding interest	*23.3*	*25.6*	*15.1*	*14.8*	*14.9*	*13.9*	*14.7*
Wages and salaries	13.7	8.7	7.3	7.0	6.7	6.0	6.1
Interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital expenditure	6.2	17.4	15.4	16.9	17.8	17.3	18.8
Primary balance	**6.0**	**15.2**	**33.7**	**39.2**	**40.2**	**47.3**	**46.0**
Overall balance	**6.0**	**15.2**	**33.7**	**39.2**	**40.2**	**47.3**	**46.0**

Source: IMF and local authorities' data; estimates (e) and projections (p) based on authors' calculations, 2011

The country has an overall budget surplus, but when oil and gas are excluded it still runs a big deficit, though the latter decreased between 2001 and 2006. Non-oil/gas revenue represented 7.5 per cent of total revenue, mainly sales tax (36.7 per cent), customs duties (19.3 per cent) and other income taxes (44 per cent). This structure illustrates Libya's policy stance of low taxes and trade liberalization. Private sector growth doubled the take from income and profits taxes between 2001 and 2006 and tripled the yield of other income taxes. This new revenue easily made up for the 70 per cent drop in customs receipts between 2001 and 2003.

Due to high oil prices, strong external demand and buoyant internal demand boosted by an expansionary fiscal policy, recent years have seen acceleration in real GDP growth, to more than 7.2 % on average between 2005 and 2007. It fell to 3.8 % in 2008, mostly on account of a reduction in oil prices. Non-oil GDP grew by 8 % in 2008, supported by an expansion in construction, transportation and trade, as well as by a significant increase in government spending (45%).

Due to unprecedented oil revenues, Libya has registered very important fiscal surpluses in recent years (almost 25 % of GDP in 2008), even though the non-oil fiscal account is in deficit (32 % of GDP in 2008). However, as a result of the sharp fall in oil prices, the fiscal surplus is expected to narrow down to around 14 % of GDP in 2009. Libya's external position is very favorable. Due to high oil prices and strong external demand, exports have grown very rapidly in nominal terms over recent years. Despite the concomitant strong increase in imports and the deficit in the services and current transfer's balances, the current account surplus reached more than 40 % of GDP in 2006-2008. According to the Central Bank, the balance of payments posted a $ 37 billion surplus in 2008. Although Libya does not publish data on its external debt, it is understood that the country has very limited external debts. Its total foreign assets (foreign exchange reserves, the Oil Reserve Fund and the Libyan Investment Authority) are estimated to have reached $136 billon at the end of 2008. In March 2009, Libya was awarded investment grade ratings.

Despite sound macroeconomic fundamentals, economic reforms remain slow. Privatization of large companies is not advancing, except in the banking sector, where two of the five state banks have been merged and a further two sold to foreign investors. A new licence for mobile telecommunication services was offered to private investors in 2009, and foreign investors are being courted to take part in new infrastructure projects, in particular power plants. However, foreign investment is for the time being largely concentrated in the oil and gas industries.

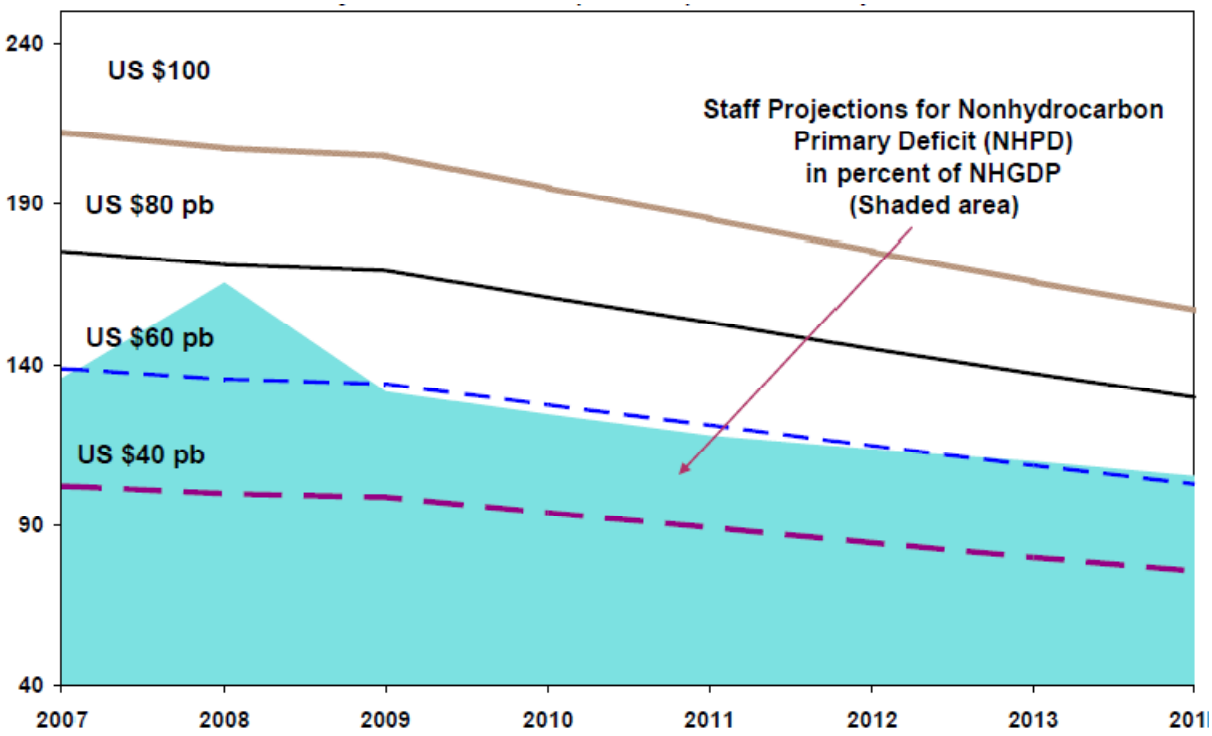
The development of the non-oil private sector has been more difficult than expected, due to Libya's underdeveloped financial system, inadequate infrastructure, inefficient public administration and the lack of an educated workforce. One of the main problems faced by private companies is the uncertainty created by different and shifting interpretations of the law, in particular the legislation on taxation, and the absence of rapid and transparent mechanisms for resolving commercial disputes.

High unemployment rates were among the main grievances that led to the Libyan uprising of 2011. The interim government inherits a labor environment of private sector rigidity, inadequate youth skills and a youth preference for public sector employment. Initiatives to encourage self-employment have been hampered by the difficult business climate. The difficulties will be compounded, in the short term, by the aftermath of the war but the political changes underway are an opportunity for the country to address these challenges.

6.1.2.2. Libya Fiscal Sustainability Analysis

Staff updated the fiscal sustainability assessment to reflect oil price developments and the authorities' revised public expenditure plans. The analysis utilizes the permanent income approach, which requires saving part of the oil wealth (in a stabilization fund or elsewhere) to ensure intergenerational equity.

Figure 10: Libya Nonhydrocarbon Primary Deficit (NHPD) Projections In percent of Nonhydrocarbon GDP (NHGDP) at different price levels.



Source: Staff estimates

Based on this approach, at current oil prices of $60-80 per barrel, Libya's expenditure plans, as envisaged by the Ministry of Planning and Finance (MoPF), are sustainable.

The analysis compares Libya's expenditure plans to the derived sustainable levels at oil prices in the $40- 100 range. The results show that Libya's public expenditure plans remain sustainable even if oil prices decline to $60 per barrel over the medium-term.

Given the uncertainty associated with oil prices and other assumptions used in the analysis, the results should be interpreted with caution and updated periodically. In addition to sustainability considerations, the fiscal stance needs to be guided by the objective of maintaining macroeconomic stability and achieving economic and social development goals. The authorities

should place increasing emphasis on the quality and composition of expenditure in order to enhance its effectiveness.

6.1.2.3. Monetary Policy

The Central Bank of Libya during the period from 2002 - 2010 to take many actions on monetary policy and achieve its objectives of achieving stability in the general level of prices and maintaining the integrity of the banking system, consistent with the purposes of the Bank and the means to achieve these purposes, in accordance with the provisions of the law.

Given the importance of the role of monetary policy in bringing about the change to be at the macroeconomic level, which depends on the utilization of data and information available to the monetary sector and to study their different effects on economic activity, the decision was made Governor of the Central Bank of Libya No. (32) for the year 2005,on 2005.4 0.7 m, the establishment of "monetary policy committee" bank with a membership of some officials of the Bank and some experts from outside to develop a general framework for monetary policy to ensure the achievement profits objectives, and study all matters relating to the performance of monetary policy, banking, and their effects on economic activity and submit its recommendations to the Governing Council to take the deems appropriate

In recent years, the government has increasingly favored structural reforms, especially gradual state withdrawal from productive sectors, a reduced role in the economy and greater transparency in public affairs. The reforms involve diversification, privatization and reform of the banking and financial sector. Diversification needs to be encouraged by growth in the non-oil/gas sector and by job creation, using oil and gas revenue to ease the transition to a market economy. Unlike other transition economies in the early 1990s, Libya has a healthy financial situation allowing it to build the safety nets needed to cushion the effects of transition. Optimal use of oil and gas revenue will require a transparent framework for drafting and implementing the budget, tighter medium-term management of public finances and above-board handling of oil and gas income. This will bring macroeconomic stability to the transition and ensure the sustainability of the social safety nets and adequate funding for human resources development.

This strategy will require better management of oil and gas revenue, focused on stabilization and savings. Medium-term fiscal discipline through proper monitoring of expenditure is a pre-condition for a tax system compatible with the state of the production network. Making public spending more efficient will also require a broad range of reforms.

Privatization and strengthening the private sector are the structural keys to transition to a market economy. A list was made in October 2003 of 360 state-run firms that could be sold off between 2004 and 2008, ranging from steel, petrochemicals and cement to agriculture. Sixty-nine of the firms have so far been divested and the rest are being modernized in preparation for sale. The privatization strategy will need strong institutional support if the transition to a market economy is to succeed. Allowing a new economy driven by the private sector to develop is thus essential to faster growth of the non-oil/gas sector and job creation. The biggest challenges are building a healthy investment climate, with institutions that can support more open markets and with a stronger banking system, while ensuring effective and sustainable social protection for the most vulnerable groups to make the transition easier.

Libya's banking system comprises the CBL, ten commercial banks, three specialized ones and one offshore bank, the Libyan Foreign Bank (LFB). Three of the ten commercial banks – Jamahiriya Bank, National Commercial Bank and Umma Bank – are wholly owned by the CBL The Wahda Bank, in which the CBL had an 87 per cent share, sold 19 per cent of its capital to Jordan's Arab Bank in early 2008. The Sahara Bank was privatized in 2007 with France's BNP Paribas becoming a strategic shareholder. The private sector has a majority share in four banks, the Commercial Development Bank (77.8 per cent),Wafa Bank (100 per cent), Aman Bank for Commerce and Investment (100 per cent) and the Arab Unity Bank (100 per cent). It also owns the regionally decentralized National Banking Corporation (NBC). There are also 48 regional banks, now consolidated into a score of firms. The consolidation process is expected to continue until they are all part of the NBC. The three specialized banks – the Agricultural Bank, the Bank for Savings and Real Estate Investment and the Development Bank – are wholly owned by the government.

The structure of the banking system is not necessarily the result of a policy of specialization; rather, it reflects the successive strategic choices made at various stages, as well as a lack of competition that could make the sector inefficient. The banking system continues to be dominated by the public sector, which accounts for more than 90 per cent of its business. The government has begun a thorough reform of the financial sector that will mainly involve privatizing state-owned banks and upgrading the payments system. This reform is one of the major tasks of 2008.

Steps have been taken to streamline trade, among other things by eliminating the import-licensing system and a fund to subsidies foreign exchange. Tariff barriers are still in place despite many efforts towards regional and international integration. Libya is involved in several regional integration processes, including the Arab Free Trade Area and the Community of Sahel-Saharan States. It has also taken steps to join the World Trade Organization and the Barcelona Process, which aims to set up a trans- Mediterranean free trade area.

6.1.2.4. Government Spending in Libya

Optimal use of oil and gas revenue will require a transparent framework for drafting and implementing the budget, tighter medium-term management of public finances and above-board handling of oil and gas income. This will bring macroeconomic stability to the transition and ensure the sustainability of the social safety nets and adequate funding for human resource development.

The first budget surplus in Libya's history occurred in 1966 when oil revenues began to increase spectacularly. Budget methodology and fiscal policy under the monarchy in the 1960s had tended to follow a 1959 World Bank mission's recommendations, as modified by the progressive influence of rising nationalism and the unforeseen growth of the petroleum industry. Increased integration of the provincial fiscal administrations with the central administration was effectively achieved by the conversion of the monarchy from a federal to a unitary form of government in 1963. The assurance of large future oil revenues enabled the government to introduce, also in 1963, a sizable development plan and a corresponding administrative apparatus.

The plan legislation included a provision that not less than 70 percent of all future petroleum revenues should be allocated to the financing of development.

During the monarchy, the government's budget was organized by the Ministry of Finance, discussed and sanctioned by the parliament, and signed into law by the king. It consisted of a current expenses budget and (after 1962) a development expenditures budget. After the June 1967 War, a supplement was added to finance enlarged national defense outlays and annual subsidies to Egypt, Jordan, and Syria.

Under the revolutionary government, the budget was divided into an annual administrative expenses budget, an annual development expenditures budget, and a special expenditures budget. Beginning in 1982, the government also listed certain key imports under a new commodity budget. Until 1974 the fiscal year (FY) had begun in April, but since January 1974 the fiscal year has been concurrent with the Gregorian calendar year. New procedures for developing the budget were initiated in FY 1978. Initial proposals for the administrative budget started at the municipal level; the proposals were forwarded to an appropriate secretariat for consolidation and subsequent submission to the Secretariat of the Treasury, which reviewed and forwarded the proposals to the General People's Congress (GPC) for final approval. The development budget was prepared initially by the organizations that would implement the specific project; the proposals were then sent to the Secretariat of Planning for revisions and submission to the GPC. The special expenditures and commodity budgets have not been in the formal budget, but they have been approved during the fiscal year by the GPC.

Special expenditures usually have included grants, loans, subsidies, and the purchase of equipment for national defense. The total generally has not been made available to the public because of the defense-related expenditures, but some partial expenditures for special items have been released on occasion. As much as 80 percent of the administrative budget has been spent by the central government the rest being divided between the municipalities and public enterprises in years when they ran at a net loss. In the mid-1980s, however, municipal allocations were increasing at the expense of central governmental expenditures. In 1983 and 1984, central allocations under the administrative budget were just under 50 percent of the total, whereas the

municipalities spent just over 50 percent. By 1985 the municipal share of the total administrative budget allocations had risen to 71.5 percent, whereas the central government took only the remaining 28.5 percent.

Before the 1969 revolution, the government spent more funds on the administrative budget than on investments. Since 1969, however, development expenditures have been much higher than administrative expenditures because of the government's policy of using oil revenues to build for the future. The development budget generally has covered economic and social projects, but it also has included working capital for public sector corporations and some lending and operating expenditures. The annual development budget has usually corresponded to a certain percentage of the total amount projected to be spent by the current development plan. All budgets have been amended frequently during the course of any year; the amendments generally reflect increases for specific projects or purposes or cover the increased costs of imported items for development projects.

Planned expenditures under both the administrative and development budgets increased rapidly during the 1970s. By FY 1980, the administrative budget had increased by almost five times its level in FY 1974, moving from LD192.9 million to LD950 million. The development budget, over the same time period, increased its planned expenditures by slightly less than a factor of four, from LD740 million to LD2.53 billion. During the 1980s, growth leveled off. The administrative budget increased by only 14 percent between FY 1981 and FY 1984, and allocations to the development budget, which has always been the largest component of total government spending, actually decreased almost 30 percent. Data available for the commodity budget indicate that LD1.56 billion and LD1.67 billion were spent in FY 1983 and FY 1984, respectively.

By far the largest item in the FY 1984 administrative budget was for defense spending, which accounted for 24 percent of the total (see chapter Defense Costs). The next largest item was for education at only 6 percent of the total budget. Under the development budget, the biggest items traditionally have been agriculture, heavy industry, oil and gas extraction, and communications and shipping. The relative levels of expenditures among these four items usually

depended on the guiding philosophy behind the particular development plan in force when actual budget allocations were made. Thus, in FY 1974 and 1975, heavy industry and oil extraction received the most funding. From 1976 through 1979, the largest percentages went to agriculture, including irrigation. During the 1980s, heavy industry and, to an increasing extent since 1982, communications and shipping occupied the leading positions in the development budget. Since 1983 the commodity budget has mainly been used to subsidize imports of basic foods, raw materials and parts for light industries, and key engineering projects, principally the GMMR (see chapter Land Use and Irrigation).

The government funded these budgets in a simple, if unusual, manner. All nonpetroleum revenues were assigned to cover administrative budget expenditures. Any gap between revenues and expenditures was met by transferring some of the petroleum revenue, a practice that ensured that the administrative budget was always in balance. In FY 1984, for example, 20 percent of the administrative budget was covered by oil revenues. After the administrative budget had been balanced, the remaining oil revenue was used to fund the development budget. In practice, this system meant that, while allocations under the administrative budget were almost always assured of being funded, expenditures under the development budget could diverge greatly from planned levels depending upon variations in oil revenues.

Although actual development budget expenditure data as opposed to allocation data are hard to come by, Central Bank figures for 1981 and 1982 indicated that the difference between planned and actual expenditures under the development budget could be quite large. For instance, in FY 1981 actual expenditures reached 96 percent of the planned levels, but in FY 1982 they only accounted for 62 percent of the official target. Thus, allocation figures for the development budget must be viewed with skepticism and, despite their impressive theoretical allocations, various development projects were often held up for lack of funds.

The pattern of defense spending has been difficult to appraise with any exactitude since the mid−1970s, when government restrictions on the publication of military information were imposed. Detailed budgets, once available, have not been disclosed since the mid−1970s. Total amounts allocated to defense in the national budget were available, but apportionments to

individual service components or specific programs were impossible to ascertain. Moreover, the figures published for the defense budget clearly fell far short of actual expenditures. In all likelihood, many military outlays were hidden under other budget items or obscured by manipulation of prices or exchange rates. The value of imported military equipment alone has generally been far in excess of the allocations to defense as recorded in the budget. The massive purchases from the Soviet Union, estimated at over US$1 billion annually since the mid-1970s, do not appear in the budget either as payments or amortization of military credit.

Increased spending for military improvements and other defense needs was made possible by the vast revenues from petroleum particularly after the government nationalized the industry. Even during the monarchy, a doubling of military expenditures between 1964 and 1968 demonstrated that this new source of revenue permitted an upgrading of the military that was previously unattainable. Nonetheless, defense expenditures under the monarchy continued to be relatively modest. As one specialist wrote just before the 1969 coup, thus far Libya has avoided succumbing to the lure of the arms race or procurement of nonessential prestige military forces.

Within a few years after the assumption of power by the Qadhafi regime, defense spending accelerated dramatically. It continued to rise nearly every year, although at a somewhat reduced rate after 1978. Arms imports ordinarily formed more than half of total defense expenditures. However, some slackening in the value of imported equipment has occurred since 1982. This is attributed in part to the saturation of the Libyan defense forces and in part to financial strains on the government arising from the sharp decline in oil prices. The limited official data published by Libya offer a completely different picture from the estimates compiled by non-Libyan sources. In the administrative budget for 1984, the amount shown for the armed forces is LD340 million (for value of the Libyan dinar,), which constituted 23.6 percent of the budget.

This represented a substantial increase over the LD300 million shown for 1983, composing 19.7 percent of the administrative budget. Defense expenditures were omitted from the budget published for 1985, and no explanation was supplied of the component items in the ostensible disbursements for defense in 1983 or 1984. According to estimates compiled by

ACDA, Libyan military expenditures rose eightfold between 1973 and 1979, when a peak of US$3 billion annually was reached. Spending then remained fairly level until a new upswing in spending began by 1983. By 1984, annual outlays on defense were estimated at US$5.1 billion.

The 1979 dates shows 12.4 percent of gross national product (GNP), whereas the 1984 figure represented 17.8 percent of GNP and an exceptionally high 40 percent of total government expenditures. On the basis of the ACDA estimate, military spending would have amounted to US$1360 per capita in 1984. This compared to a figure of US$34 per capita for Africa as a whole and was about twice the level of average per capita spending on defense of the average members of the North Atlantic Treaty Organization. Only Israel, Saudi Arabia, and several smaller states of the Arabian Peninsula had military outlays on a scale comparable to those of Libya.

This strategy will require better management of oil and gas revenue, focused on stabilization and savings. Medium-term fiscal discipline through proper monitoring of expenditure is a pre-condition for a tax system compatible with the state of the production network. Making public spending more efficient will also require a broad range of reforms. The country's economic growth is driven by government investment and spending, along with imports, and is far from being diversified or independent of the energy sector. Real GDP growth since 1992 has followed oil prices and export earnings and was estimated 6.8 per cent in 2007 (5.6 per cent in 2006), with 8 per cent predicted for 2008 if oil prices continue to soar. Dependence on the oil and gas sector is still growing, with the price of Libya's oil at USD 63 a barrel in 2007 and probably higher in 2008. Oil and gas provided more than 99 per cent of all export earnings and 78 per cent of government revenue in 2007. Such enormous dependence makes the economy vulnerable to oil price changes.

The oil and gas sector dominates Libya's growth, contributing 74 per cent of GDP in 2006, a dramatic turnaround since 2001, when the non-oil/gas sector accounted for 62.5 per cent of GDP. The oil and gas sector contributed 1.86 percentage points (22 per cent) of GDP growth in 2006.

Exploration and development in the oil and gas sector suffered during the years of international sanctions. Production between the 1980s and 2003 was not matched by new exploration due to a lack of foreign and local investment, shortage of spare parts and poor maintenance of existing oilfields. Production capacity fell from 3.3million barrels a day (b/d) in 1970 to 1.73 million in 2007. The lifting of sanctions, especially by the United States, has opened the way for new exploration by foreign firms and upgrading and better maintenance of old oilfields. This will enable Libya to increase its estimated 15.4 billion barrels of reserves in both the short and long terms and to boost oil and gas production and export capacity.

New exploration permits will be granted in an effort to increase reserves to a level compatible with the country's post-2015 production strategy. The target is to have new reserves of 6.5 billion barrels by 2010, allowing production of 2.9million b/d over the 2010-15 period.

Libya has 1 490 billion m³ of natural gas reserves, but export capacity had fallen since the 1990s, when four power plants were connected to the national gas network, and rose again only in 2004 when an undersea gas pipeline to Italy was laid. The project to lay a pipeline to Tunisia has been delayed by technical supply problems.

Libyan gas production was most recently estimated at 948 million m³ a year, but 57 per cent of it is burned off due to the lack of marketing capacity. Improved use of gas-liquid separation methods could greatly increase exports despite a sharp rise in local consumption. The production target for the year 2010 is 3.716 billion m³. The non-oil/gas sector (26 per cent of GDP) has recovered somewhat from lengthy stagnation and even recession in the 1990s and is now growing strongly, by an estimated 7.5 per cent in 2007 (up from 6.65 per cent in 2006).The sector's role was important for continued high government spending, as well as increased imports due to unification of exchange rates and trade liberalization, and contributed 78 per cent of national economic growth in 2006.

Table 2: GDP structure in Libya

Petroleum	**74.1%**
Agriculture, fishing, and forestry	**2.5%**
Government services	**6.9%**
Services	**10.1%**
Construction	**2.7%**
Industry excluding petroleum	**2.7%**

Source: Authors' estimates based on National Statistics Office data.

Let us first consider what part of oil revenues accounted for in the total income of the economy and budget. The government does not provide official estimates of the total contribution of the oil and gas sector in GDP (hereinafter - the oil GDP), despite the importance of this indicator. Therefore, it is necessary to rely on expert estimates of the size of the sector (5). Our method involves estimating the share of oil and gas sector through the value added created in the sectors of mining and processing of oil, gas and transport via pipelines (6). It is based on the sum of all components of the final product sectors excluding the amount of received quantities of material costs.

Note that the application of this method, as the approach of the World Bank, shows that a large part created in the oil and gas sector value added artificially moved to the area with the help of a mediating mechanism of transfer prices. Our assessment of "return" them back, including in the oil GDP. Where comparisons are possible, various methods for estimating the size of the oil and gas sector give fairly similar results. Table 1 presents estimates of oil revenues in Russia's GDP for the period between the two crises.

Our estimates indicate that the value of the dollar-oil GDP increased in 2007 by more than six times compared to the crisis period of 1998 - 1999. At the same time, the share of this sector

in GDP did not exhibit a clear upward trend. The size of this sector reached peaks in 2000 and 2006 - 2007. They declined, despite the rise in hydrocarbon prices. Figure 1 shows that the relationship between oil prices and the size of the oil and gas sector is rather weak. Prices rose by more than five times (even after adjusting for inflation of the dollar), while the share of the oil and gas sector in GDP has increased slightly (from 14.4% to 18.8%). This is because the oil price increase was accompanied by a real appreciation of the dirham and slowing production of hydrocarbons. As a result, the quantity of oil GDP at constant prices throughout the period lagged behind the non-oil GDP. Moreover, according to our estimations, in 2006, oil GDP growth has stopped, and in 2007, its volume began to fall, due to inefficient operation of the oil gas sector, where there was no increase in production volume, while unit costs were rising.

Note that the ruble is largely affected by the terms of international trade. The estimated elasticity of real exchange rate on oil prices is 0.5 (7). This is typical for oil-producing countries: Finnish scientists examined a sample of 12 leading oil-producing countries and have come to the conclusion that a typical elasticity is between 0 and 4 to 0, 5 (8).

As illustrated in Figure 2, Libya has a much lower ratio of oil and total GDP than countries in the Middle East and other oil-producing countries. The percentage of the oil and gas sector in GDP is comparable to the Libyan economy is likely to Norway, almost four times giving the leader - Russia.

Let us now consider the income of the budget from the oil and gas sector (hereinafter - the oil revenues). Obviously, the government's ability to conduct counter-cyclical policies to a large extent depends on how fully it is possible to withdraw from the budget the additional revenues raised during the favorable situation in the sector. This is largely determined by the structure of the oil and gas sector (in particular, the nature of ownership of mining companies) and the method of withdrawal of the state natural resource rents. For example, in Libya it is withdrawn by specific taxes - mineral extraction tax and export duties. In the course of the tax reform undertaken in the 2000s, taxation of the oil and gas sector has been radically modified. As a result, in both sectors the level of taxation was increased and became more flexible and tied to the value of income. Since 2005, the share of oil revenues withdrawn from the budget was

approximately 60%. Table 3 shows the ratio of oil revenues for the full fiscal system and petroleum GDP.

It is worth mentioning that in federal countries oil revenues are typically concentrated at the federal level. With regard to Russia, we describe this according to the data provided in Table 4. They show that in recent years in the federal budget the oil revenues fell to 90%, but their share at the federal level was close to or even greater than 50%. In terms of a counter-cyclical policy it is important not only to the average share of seized oil revenues in the budget, but also to the changes in revenues with fluctuations in oil prices, that is, the proportion falling into a further rise in price of oil revenues from the oil. In most of the leading oil-producing countries the share of oil revenues in the formation of the budgetary resources of the central government is higher than in Russia. In 2007, only Syria and Kazakhstan had a smaller share of oil revenues. In Azerbaijan and Turkmenistan, the share of oil revenues was about the same as in Russia, and in other countries in our sample, it ranged from 69% (Iran) to 90% (Libya).

The ratio of revenues from the oil sector to the value of oil GDP in Russia is higher than in the other CIS countries, where production is often carried out as a joint venture with foreign capital or foreign companies on the agreement of production sharing. At the same time, in the Middle East, the withdrawal of oil revenues from the budget is far larger, because production is carried out mainly by state-owned companies. Note that the UAE's oil revenues exceed the amount of oil GDP due to the inclusion of the oil revenue income from investing into the oil savings funds.

The broad definition includes oil revenues as rental payments for the use of nonrenewable natural resources and the standard taxes on economic activity. In our opinion, it is advisable to manage in a special mode only income associated with the removal of natural resource rents, since they arise due to the limited natural resources - the main feature of the oil and gas sector. After stocks are exhausted the factors of production move to other sectors, while continuing to generate a stream of standard tax. Below we consider both definitions.

The peculiarity of the proposed approach in this paper to estimate the value of resource rent is that it is based on an assessment of the total value added sector. The difference between this value and the calculated sum of the estimated production costs is the "true" (full) income, including its size, moved to the intermediary sector. Then the natural rent is defined as the difference between the estimated total profit and "normal" economically reasonable profit. The latter figure was calculated on the basis of profitability to the classification of fixed assets in industry excluding oil rents. Its calculation involves several steps described in the following sections.

Since the general budget revenues are more stable than oil revenues, maintaining constant the size of oil and gas transfer provides a smoothing of government spending. In contrast to the stabilization fund, the new mechanism allows not only to protect the economy from short-term fluctuations in oil prices, but also to uniformly use the limited income from non-renewable natural resources. In fact, both methods of management of oil revenues are a variety of a counter-cyclical fiscal policy.

The first task is to assess the full impact of oil prices on fiscal revenues, which can happen through multiple channels. The rise in oil prices increases the base of most taxes, which can be accounted for by an increase in nominal GDP. The rise in oil prices may also change the structure of GDP. For example, in Libya, the tax burden in the oil sector is higher than in the other sectors, so an increase in the share of the oil sector leads to an increase in government revenue. Tax rates in the oil sector or the share of seizures in the resource rent may depend on oil prices, which further raise incomes when the price of hydrocarbons increases.

The second task is to analyze total budget expenditures depending on oil prices. There are also several possible channels. The government may, for example, interpret current prices as an indicator of the level of future prices and, accordingly, incur obligations.

In the analysis of the relationship between these factors we face a problem of multicollinearity. Indeed, if GDP is largely dependent on oil prices, then it is difficult to disentangle the effect of both measures on government revenues. Moreover, the multicollinearity

problem leads to the instability of the estimates of regression coefficients. One of the usual ways to eliminate multicollinearity is to apply the principal components method, which involves orthogonalization of variables.

The effect of oil prices on GDP. As a result, the total value of GDP is decomposed into two components: a function of the oil price and residue. These components are lower than we conventionally call the "oil-dependent" and "oil-independent" GDP.

Secondly, we analyze the dependence of budget revenues on oil prices and other factors. This can be done in several ways. One of them is to use a regression model of income on oil-dependent and oil-independent GDP.

Then low income is decomposed into several orthogonal components. For this purpose, we plotted the fiscal revenues depending on oil prices. The constructed function is called "oil-dependent" revenue. The remaining portion of the proceeds can be further broken down into components related to GDP (we call them "regular" and others). A fiscal policy can largely be characterized by the reaction of the cost of each of these components.

Next we proceed to the description of the dependence of constructed cost variables. There are also several options available. One of them analyzes the dependence of the costs on oil-dependent revenue, regular, and other income. The other option analyzes the dependence of costs on oil prices, GDP, and oil-dollars residual income. In the equations for the costs (and revenues) we include lagged variables describing the inertia of the budget process. A strong relationship between costs and the oil price or oil-dependent income provides a statistical evidence for the presence of a pro-cyclical fiscal policy.

Note that in earlier figures we determined oil GDP and oil revenues through direct accounting, whereas in this section we use similar figures, but some costs are determined econometrically. They take into account the indirect impact of oil prices on GDP and government revenues across all channels.

Analysis of the studied series showed that all of them are non-stationary. For this reason, we apply a first-differencing transformation. We use the method of least squares, which allows estimating the relationship between variables, but cannot determine its direction. This issue is not relevant for the oil price, because this variable is clearly exogenous. For the other three variables (GDP, budget revenues, and expenditures), it is important to know the direction of the influence. The causal relationship was examined using the Granger causality test.

Libyan state budget for the period under review has been scarce. The inclusion of the lagged revenue variable and oil-dependent GDP shows that both components of GDP contribute significantly to revenues. However the effect of inertia is not significant. The effect of oil-dependent GDP income is more significant, which indicates its strong dependence on oil prices. The factors we consider explain 90% of changes in the budget expenditures of Libya. In particular, the costs largely depend on the price of oil and oil-dependent GDP. Thus, a fiscal policy of Libya is to a large extent determined by market conditions in oil prices. In fact, the variation of oil prices is the main factor of changes in budget revenues. The Granger test did not reveal any clear direction of causality.

However, the costs seem to be more stable than income: the period of cheap oil budget had a deficit in the period of the road - surplus. Dynamics of GDP is by 24% determined by the dynamics of oil prices. As in the case of Libya, oil-dependent GDP has a significant impact on the value of income. Considered factors explain a much smaller fraction of the cost than in Libya, but here the magnitude of the latter strongly affects oil-dependent GDP (although the direct impact of oil prices on costs is not significant). The variation of the GDP is by 90% determined by the oil price. Interestingly, a significant variable in the equation of the formation of low income is only the oil-dependent GDP. The analysis of cause-effect relationships showed that GDP and budget revenue affect the budget expenditure, whereas the reverse effect was not identified.

The analysis compares Libya's expenditure plans to the derived sustainable levels at oil prices in the $40- 100 range. The results show that Libya's public expenditure plans remain sustainable even if oil prices decline to $60 per barrel over the medium-term.

Given the uncertainty associated with oil prices and other assumptions used in the analysis, the results should be interpreted with caution and updated periodically. In addition to sustainability considerations, the fiscal stance needs to be guided by the objective of maintaining macroeconomic stability and achieving economic and social development goals. The authorities should place increasing emphasis on the quality and composition of expenditure in order to enhance its effectiveness.

If oil prices decline below $60 per barrel, the authorities would need to revisit their public expenditure program, taking into consideration all the above objectives and not only the long-term sustainability indicative benchmarks.

Table 3: Libya sustainable overall public expenditure envelop under different oil price scenarios, 2007-14 (in billions of LD)

	2007	2008	2009	2010	2011	2012	2013	2014
Estimated sustainable nonhydrocarbon primary deficit (Real)								
Low ($40 pb)	19.9	20.2	20.6	20.9	21.3	21.7	22.0	22.4
Per-capita (in '000 US dollars)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Derived sustainable public expenditure								
Low ($40 pb)	23.9	28.0	33.1	35.6	38.1	40.6	43.3	46.2
Medium ($60 pb) 2/	31.0	36.0	41.7	44.9	48.0	51.1	54.4	58.0
High ($80 pb)	38.1	44.1	50.4	54.3	57.9	61.6	65.5	69.7
High ($100 pb)	45.2	52.1	59.1	63.6	67.8	72.1	76.6	81.5
Nonhydrocarbon primary revenue	4.0	5.5	8.8	9.6	10.4	11.3	12.3	13.4
Public expenditures	30.9	44.8	43.7	47.0	50.6	54.7	59.2	64.2
Needed adjustment in public expenditure								
Low($40 pb)	7.0	16.9	10.6	11.3	12.6	14.1	15.9	18.0
Medium ($60 pb) 2/	-0.1	8.8	1.9	2.0	2.6	3.6	4.8	6.2
High ($80 pb)	-7.2	0.7	-6.8	-7.3	-7.3	-6.9	-6.4	-5.5
High ($100 pb)	-45.2	-52.1	-59.1	-63.6	-67.8	-72.1	-76.6	-81.5

Sources: Libyan authorities: and Fund staff estimates and projections

6.2 Fiscal Policy and Government spending in Turkey

The Turkish economy has displayed a remarkable performance over the past ten years. Political stability combined with effectively customized structural reforms and economic policies have played key roles in these improvements.

Between the years of 2002-2011, the Turkish economy grew by 5% on average. While in 2011, the GDP growth rate registered as 8.5%, the Government expects it to slow down to 4% in 2012 owing to the moderation in domestic demand, prevailing uncertainties regarding the global economy, and the base effect.

In the past, inflation had been high in Turkey, but fell drastically from double digits (30% in 2002) to single digits (6% in 2010). In 2011, however, inflation accelerated to 10%. The Central Bank projects the inflation to retreat back to 6% levels in 2012.

On the fiscal front, the fiscal discipline paid off as the budget deficit/GDP ratio was reduced from 11% in 2002 to 4% in 2010 and then, 1% in 2011. The Government plans to maintain fiscal discipline also in 2012, targeting the budget deficit as 1.5% of GDP.

Despite all these, Turkey's large current account deficit problem remains yet to be solved. The Government envisages the current account deficit/GDP ratio to narrow down to 8% in 2012 from 10% in 2011. In order to stabilize the current account deficit at reasonable levels in the medium to long term, Turkey needs to implement structural reforms designed to increase productivity and savings rate.

Outstanding growth in conjunction with a significant reduction of inflation suffered economic reforms to a new level. There were also results in attracting foreign direct investment: In recent years, Turkey has managed to attract a huge amount of foreign direct investment, more than 83 million U.S. dollars of which occurred in the past seven years, while the total amount of borrowed funds in 35 years amounted to U.S. $ 15 billion.

Like many other countries in recent times, Turkey has been struggling with the inflationary pressures of high food and fuel prices, exceeding its inflation targets. Inflation year

on year to May 2008 was running at nearly 11%, exceeding targets for the second year in a row, which led the Governor of the Central Bank to raise the target from 4% to 7.5%. However, these current difficulties must be considered in the context of inflationary rates of 65%, experienced as recently as the late 1990s.

Throughout the 1980s and 1990s, the Turkish economic policy framework was conducive to populism and rent-seeking behaviour. To explain to non economists, rent seeking is when an individual, organization or firm seeks to make money by manipulating the economic and/or legal environment rather than by trade and production of wealth.

As a result, Turkey's macro-economic performance has deteriorated overtime and the prospect of EU membership has become increasingly elusive (Ugur, 2004). Average growth rates have declined from 4.76% in the 1970s to 3.93% in the 1990s; whereas the coefficient of variation of GDP growth (a measure of volatility) has increased from 51% over the same period.

There is significant evidence indicating that GDP growth volatility is caused by weak institutional quality and that such volatility (either by itself or in combination with weak institutional quality) is conducive to lower per-capita GDP growth (Hnatkovska and Loayza, 2005; IMF, 2003; Rodrik et al, 2004). In the light of such findings, it would not be off-the-mark to describe the 1990s as a lost decade for economic development in Turkey.

Turkey's economy rebounded vigorously following the global crisis, but in the process external and domestic macroeconomic imbalances emerged. Growth averaged close to 9% in 2010-11, with strong job creation. At the same time, the current account deficit widened to around 10% of GDP and consumer price inflation rose to over 10%. The ongoing global slowdown helps reduce these imbalances somewhat, but they remain a source of vulnerability as the economy continues to depend strongly on foreign confidence and capital inflows in a fragile international environment.

Rebalancing has started but needs to be consolidated. In addition to the domestic slowdown, exchange rate depreciation in the course of 2011 brought about competitiveness gains and a reduction in the current account deficit but these gains may prove transient if the large

inflation differentials with trade partners persist. The recent deceleration in inflation benefitted from favourable exchange rate pass-through effects and food and energy price developments, but anchoring inflation expectations at low single digit rates has been elusive to date. A durable rebalancing calls for continuing action on macroeconomic and structural fronts.

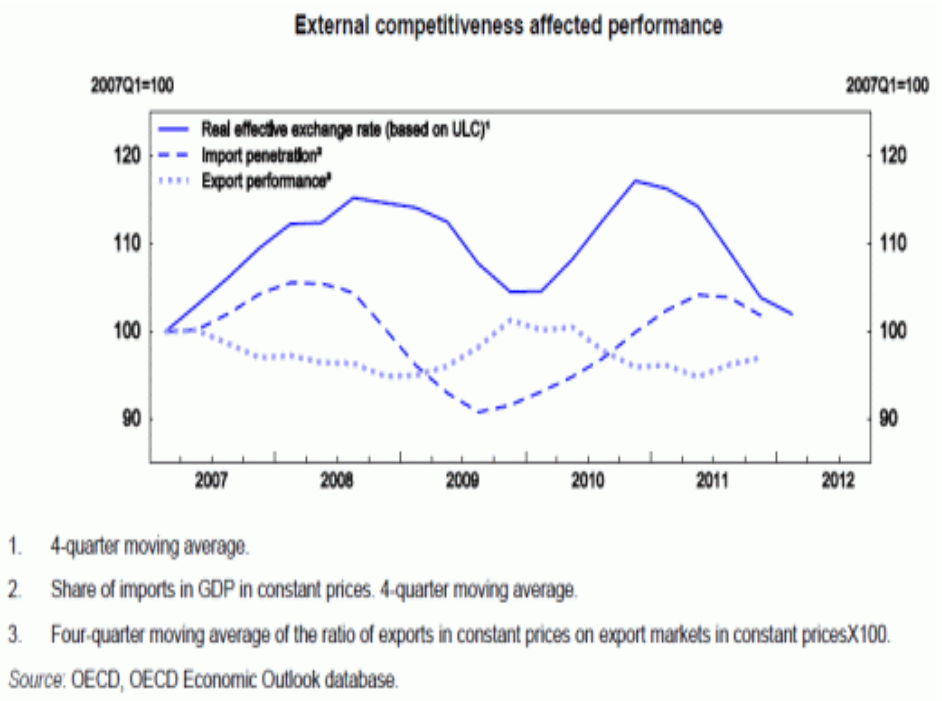
A new monetary policy regime was put in place in late 2010, to try and contain domestic demand without fuelling capital inflows and excessive exchange rate appreciation. It helped improve competitiveness and rebalance demand but inflation remained above target and bringing it down should regain priority. Fiscal policy kept public finances on a sustainable path but may need further tightening to support monetary policy and to build up sufficient buffers in case the international environment weakens.

External competitiveness remains crucial for Turkey's economic performance both in the short and the long term. Competitiveness gains are necessary to rebalance domestic and external demand, and increase the pace of employment, income and domestic saving growth. They are needed to improve the employment opportunities of the low-skilled majority of Turkey's working age population and help reduce poverty and foster social cohesion. Given Turkey's trade specialization, improving non-price competitiveness is important, but maintaining price competitiveness is essential.

Structurally strengthening the business sector is crucial to boost productivity. Too many of the new businesses and jobs are created in the informal sector and the skills of the majority of the labour force remain too low. Both exert a drag on productivity and competitiveness. To encourage hiring and growth in the more productive formal sector, far-reaching labour market reforms and a more flexible labour contract are indispensable. To strengthen human capital, enrolment in the education system has been considerably improved, but there remains ample scope to improve quality and equity. In addition, upskilling the existing labour force should be a policy priority.

Potential output and living standards could be raised by up to a quarter by 2030 relative to a baseline projection according to reform scenarios embodying labour market and educational reforms.

Figure 11: External competitiveness affected performance



1. 4-quarter moving average.
2. Share of imports in GDP in constant prices. 4-quarter moving average.
3. Four-quarter moving average of the ratio of exports in constant prices on export markets in constant pricesX100.

Source: OECD, OECD Economic Outlook database.

6.3 The influence of fiscal policy on the state budget

Fiscal discipline and restrictive fiscal policy continues to be a major pillar of Turkey's economic program, and both of these reasons had a significant impact on slowing the rate of inflation, as well as on indicators of sustainable growth. In addition to its sound macroeconomic policies, Turkey has implemented a comprehensive program of structural reform and broad. Turkey's success was remarkable against the backdrop of the experience of other countries, primarily in terms of speed of structural and inter-changes. Turkey, indeed, made considerable progress in restructuring its financial sector, as well as to improve public sector management and the business environment. Implemented structural reforms aimed at:

- enhancing the role of the private sector in the Turkish economy;
- improving the efficiency and viability of the financial sector;
- translation social security system on a more solid foundation.

These reforms have strengthened macroeconomic fundamentals Turkish economy. Reliability of the Turkish banking sector has a special buffer that protects against external financial shocks. Economic Growth Robust economic policies, coupled with the dynamic reforms in this area have yielded positive results: in the last seven years, the economy maintained strong growth. Thanks to the determination in the implementation of structural reforms and good macroeconomic policies, Turkey's economy has become one of the fastest growing in the region. stability and strong economic performance between 2002 and 2009: • GDP grew by 168 percent to 618 billion U.S. dollars • The average annual real GDP growth at a rate of 4.3 percent • Exports have grown by 183 percent to 102 billion U.S. dollars • The volume of exports to neighboring countries increased by 621 percent of total average annual GDP growth rate (CAGR) (%), constant prices Source: Review of the world economic outlook at the World Economic Forum, April 2010 Over the past seven years, Turkey's economy has become one of the fastest growing emerging economies. total annual GDP growth rate (CAGR) (%) for 2002-2009., constant prices Source: Review of the world economic outlook at the World Economic Forum , April 2010 As the Turkish economy has been growing steadily, as the standard of living has increased considerably. Per capita GDP (nominal) increased from the level of 3492 U.S. dollars

in 2002 to 10,440 U.S. dollars in 2008 and dropped to 8590 U.S. dollars in 2009 due to the global financial crisis. per capita GDP - Nominal (Dollar USA) Source: Turkish Statistical Institute (TurkStat) Comparative analysis of the success of the Turkish economy nominal GDP in 2009 (U.S. $ billion) Source: Review of the global economic outlook at the World Economic Forum in April 2010 Reducing inflation One of the most impressive aspects of the Turkish economy Recently there was a significant reduction in inflation in the face of strong growth against a background of rising energy prices. The average annual inflation rate fell from marked the beginning of 2002 to 70 percent single-rate of 9.1 percent in May 2010. Average inflation for the period (%) Source: Turkish Statistical Institute (TurkStat) Weighted fiscal policy Fiscal discipline remains cornerstone of the macroeconomic indicators of Turkish economy. With such a balanced budget policy, Turkey has reduced the amount of its indebtedness, thereby demonstrating some of the best indicators among the European economies in terms of reducing the debt burden. Ratio of debt to the national government in 2004 met the criteria of the Maastricht Treaty, and 60%. installed EU capacity of the national government debt (% of GDP) Source: Secretariat of the Turkish Treasury Source: Statistical Office of the European Commission (Eurostat) and the Secretariat of the Treasury balance the state budget (% of GDP) Source: Ministry of Finance Source: Statistical Office of the European Commission (Eurostat) and the Ministry of Finance Balance of Payments

Fiscal policy is a cornerstone of Turkey's macroeconomic strategy. Since the crisis of 2001, Turkey has achieved very impressive fiscal outcomes, especially for central government. A significant problem for the assessment of Turkish fiscal policy is that, apart from Mexico, Turkey is the only OECD country that does not publish government fiscal accounts according to national accounting standards (SNA93 or ESA95).

This was mainly due to higher-than-expected privatization receipts, higher primary surplus, stronger-than-projected economic growth, an appreciating lira, and a further decline in the domestic interest rate (apart from the recent jump). The financing structure of public debt has also improved in recent years. The share of foreign currency debt has been reduced, maturities have been lengthened and the share of fixed-rate debt (as opposed to floating lira notes) has been increased. However, the recent lira depreciation and the increased risk perception of Turkey's

government bonds may slow down the debt reduction trend of the past years. The lira depreciation is estimated by the IMF to have added some six percentage points to the net debt ratio of 2006, while the impact of higher interest rates will be felt in the coming years. These effects have so far been offset by strong economic growth, a primary public sector surplus in 2006 of 6.7% of GDP, and privatization receipts of over 2.5% of GDP. The public sector debt burden is projected to continue declining in the coming years.

Table 4: General government deficit in Percent of GDP

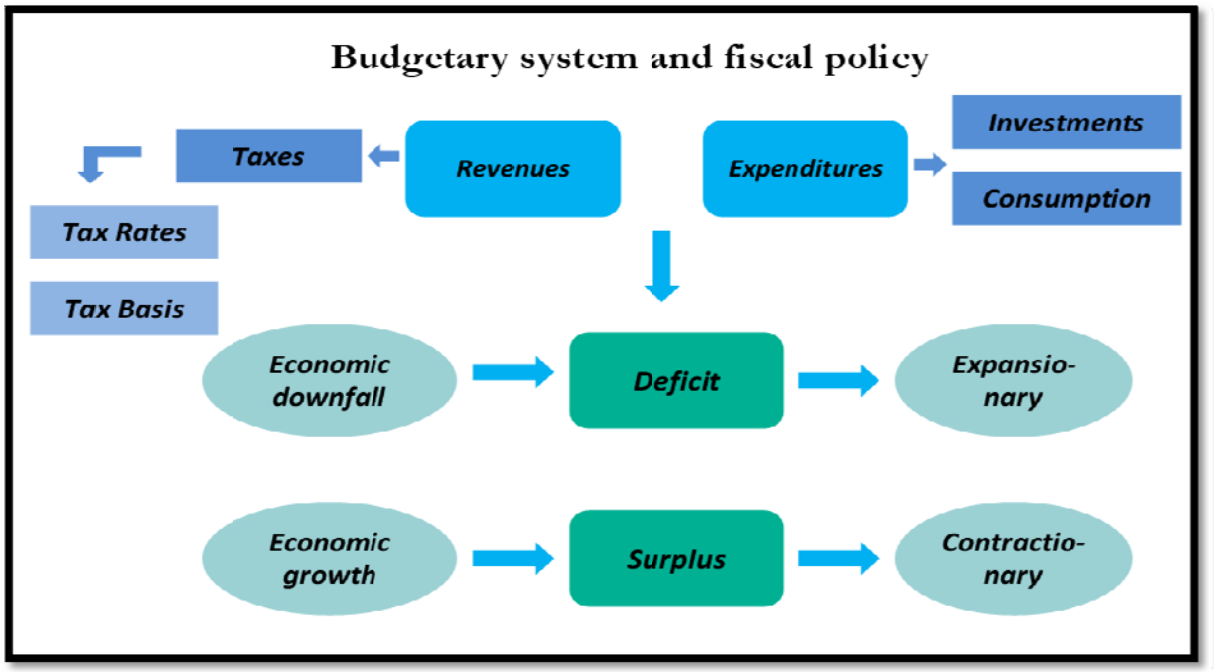
	2002	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Primary balance central government	3.5	4.9	5.3	5.5	5.8	5.2	5.0	5.0
Primary balance public sector	1	5.1	6.2	7.2	6.8	6.6		
Total balance central government	14.5	11.2	6.8	1.4	0.7	2.7	0.8	0.9
Total balance public sector1	1	12.5	9.1	4.6	0.3	0.4		

Sources: Estimates IMF and Ministry of Finance, Turkey, April 2007.

With the aim of gaining the main macroeconomic goals such as economic development, full employment, price stability etc., government applies fiscal and monetary policies. Fiscal policy is applied for smoothening of economic fluctuations. Depending on economic conditions and the goal of the government, it accrues different types of fiscal policy. Fiscal policy can be expansionary, contractionary, or neutral.(Figure 9)

- Expansionary fiscal policy, or deficit spending, implies increase of government spending or tax cuts in order to push the economy out of recession or high unemployment, incurring a government budget deficit. Counterargument of neoclassical economists to the stimulus effect of expansionary policy is crowding out effect.
- Contractionary fiscal policy gains to restrict negative effects of overheated economy. It implies decrease of government spending or raise of taxes, manifesting budget surplus.
- Neutral fiscal policy has a neutral effect on the level of economic activity since it implies a balanced budget, where government spending equals tax revenue.

Figure 12: Budgetary system and fiscal policy



Sources: Sawyer, Arrestis, 2004

Keynesian theory gives more room for debt financing than for increasing taxes. This prevalence exists on the basis of the arguments that debt financing leads to higher aggregate demand, while increase of taxes causes decrease of private consumption. According to Radionova and Alimpiev (2009), there are 3 directions by which the implications of the research may be divided into Keynesian and non-Keynesian approach to the analysis of interrelations in the economy:

1. Implications the same or opposite to the effects expected according to the Keynesian theory. From the point of view of expected implications, during last decade some researches got the results on Keynesian and non-Keynesian effects for developing and developed economies based on econometric models applying such methodologies as SEM, ECM, and VAR to the real economic data. (Carmignani 2008) for transition countries, and (Nwachukwu & Egwaikhide 2007) for Nigeria, (Baharumshah 2007) for Thailand, Li (2004) for China, Lukianenko (2004) for Turkey have discovered Keynesian

effects. On the other hand, Giavazzi and Pagano (1996) for OECD countries, Carmignani (2008) for OECD out of normal times (and neutral effects in normal times), Baffoe-Bonnie (2004) for Ghana have found non-Keynesian effects. Baldacci (2003) in his studies of the economies of 39 low-income countries has discovered different results for different countries depending on macroeconomic conditions and fiscal vulnerability. These results reflect that the instruments of fiscal policy are more integrated and efficient in transition economies than in developed economies and low-income countries. On the other hand, heterogeneity and controversy of these results are the argument for further research. In the USA both the Keynesian and non-Keynesian effects were found. First (Sanders 1995) in his research found non-Keynesian effects. Later on, (Darrat and Hammad 1998) and Blanchard and (Perotti 2002) found Keynesian effects for the U.S. economy. In the USA during recent decades monetary paradigm was prevailing. Thus, government in its economic policy relied purely on monetary instruments. During recessions FRS accrued the decrease of short-term rates: during recession of 1990 from 9% to 3%, downfall of 2001 – from 6,5% to 1%, and during 2008 – from 5,25% to 0%. The decrease of the rate to 0% was previously applied during Great Depression. In both cases in the times of economic downfall (1929, 2008) it appeared that monetary instruments are incapable to provide economic stability and recovery. Thus, the necessity of applying financial stimulus arose. Also these implications raised additional questions and became a motivation for fostering further research.

2. Critics of so called ‘fiscal illusion’. It is based on the Ricardo-Barro equivalence theorem, which treats financing of budget expenses by debt instruments equivalently with taxes. It also argues that financing though debt does not increase assets of households. The cause of short-term reaction of economic agents on debt financing is increasing of savings, not private consumption. However, this critics does not prove inefficiency of financial stimulus, since additional government expenditures, financed either by debt or by taxes, may lead to economic growth which may exceed the increase of expenditures.

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3. Restrictive rules of fiscal regulation concerning budget deficit and state debt. According to Carlin and Soskice (2006), the main restrictive conditions are Prudent Fiscal Policy Rules (PFPR) such as debt-to-GDP, taxes-to-GDP, budget deficit-to-GDP ratios (including debt service), and the "golden rule" of fiscal policy. The latter implies that government debt should be accrued during all the economic cycles exclusively for the government investments in structural changes, while current government expenditures should be financed by taxes levied. These policy rules are applied in the Stability and Growth Pact (1997) for EU countries. Marginal proposed ratios of the budget deficit to GDP is 3%, and of state debt to GDP – 60%. These margins were slightly soften in 2005 due to the amendments of the EU countries.

Thus, from the statistic and graphic analyses, the conclusion on sound trends might be drawn. Worsening (or improvement) of economic conditions leads to simultaneous worsening and unbalancing (or otherwise – improvement) of budget deficit, government debt to GDP ratios along with economic downfall (or growth). However, there is still the problem of defining of the cause and effect relations among those indicators. Thus, applying fiscal policy instruments is important for overcoming of the economic crisis, in Turkey in particular. Within the directions of the specific attention of the government should be the instruments of the budget deficit and state debt, and their share in GDP, deliberate debt policy, taking into account crowding-out effects while making decisions on allocation of government expenditures, defining the models of behaviour of economic agents on the local market as the reaction to the governmental actions, further investigation of the transmission mechanisms in the budgetary system through the instrument of budgetary expenditures.

7. Taxation - the most important tool of fiscal policy in Turkey and Libya

7.1 Government spending, taxation and economic growth

In neoclassical growth models (as developed by Solow, 1956, and Swan, 1956), growth in income per capita in the steady state is exogenously given and depends only on the exogenous rate of technological progress that falls like 'manna from heaven'. Economic growth is invariant to any kind of policy (although policy will affect the steady state level at which the economy operates). Only during the transition of economies to their steady state can economic policy have an effect on rates of growth. For decades, this model was the standard reference which formed the basis for policy views on government spending and taxation. It is therefore not surprising that most research on the role of the government focused on the division and stabilization of the cake' instead of its 'enlargement'. With the advent of the new, endogenous, growth theory that was initiated by the pioneering work of (Romer: 1986 and Lucas: 1988), the perspective on the role of the government has drastically changed. In this class of model, not only transition growth rates are endogenous, but also the steady state growth rates.

Factors that have been proposed as being important for determining long run growth are, among others, preferences, trade-intensity Research and Development (for example, Grossman and Helpman, 1991), income inequality (Persson and Tabellini, 1991) and also fiscal policy (Barro, 1990 and Glomm and Ravikumar,1994a and 1994b). In all endogenous growth models that have been developed in the past decade, the government can influence growth, either directly or indirectly. Thereby, it can have major consequences for standards of living. A crucial distinguishing characteristic of the endogenous growth theory is its perception of the nature of knowledge. In contrast to the neoclassical theory of growth, knowledge is not considered to be a public good and need not be characterized by diminishing returns to scale. The former characteristic implies that the government may have to play an active role in providing subsidies to overcome underinvestment due to non-appropriability, or in defining property rights.

The latter implies that a once and for all increase in investments in, for example, education may permanently foster economic growth (which is in contrast with the neoclassical growth theory). In the present section, we will describe the potential (theoretical) effects of

government spending and taxation on economic growth. In section 3, attention will be shifted towards other government 'activities' and their relationship with economic growth. In section 4, we will review the available empirical evidence.

As a first step toward studying the relationship between government spending, taxation and economic growth, it is of crucial importance to divide government activities in several categories. The broadest division is into spending and revenue rising. Spending can be subdivided into government consumption (which includes government subsidies) and investment. These investments may further be divided into investments in infrastructure, education, defense, etc. Also the ways in which revenues are being raised need further classification. The first distinction is between distortionary and non-distortionary (lump-sum) taxation. Distortionary taxation can further be classified along capital- and labor-income taxation, their degree of progressivity, etc. Finally, government spending and revenue raising cannot be considered in isolation. The difference between the two is the government deficit which accumulates into government debt. The partial effects of these variables on economic growth have been well investigated in the literature. Stated generally, government investments have a growth enhancing effect, as have, for example, subsidies aimed at enhancing private investments (in physical, human and knowledge capital). Government consumption can, as far as economic growth is concerned, be considered as 'throwing money in the sea' and will thus have no direct effect on economic growth. A first issue that we need to address in the context of revenue raising is concerned with the question whether the government finances its expenditures by issuing debts or by levying lump-sum taxes. According to the Ricardian Equivalence Theorem (RET), the government's financing decisions should be irrelevant. In this view, we only need to be concerned with the size and composition of government spending to establish the growth effects of government activities.

There are however, several flaws to this argument (see for example Romer, 1996, for a discussion). Among these are that (i) the logic of the RET only applies for infinite-lived households (for finitely lived households the issuing of debts represents net wealth for people living at the time the debt is issued and will thus affect their behavior), (ii) liquidity constraints may affect the borrowing capacity of people (issuing debts instead of levying taxes then relieves this constraint and may again affect people's behavior), and (iii) taxes may be distortionary.

Distortionary taxation may reduce incentives to save and/or invest and will thereby have a depressing effect on economic growth. As to the effects of the stock of government debt, there is no accordance in the literature on its effects on growth. It is however likely that a huge debt will tend to have a growth-depressing effect as expectations on profitability of investments and savings will tend to be lower.

Although these partial effects can relatively easily be (and have been) demonstrated, the fact that government spending will have to be backed with revenues is likely to result in complex and non-linear relationships between government spending and growth. This has neatly been demonstrated in the seminal theoretical work on endogenous growth and the role of the government by Barro (1990). In his basic model, he assumes that services provided by the government are of productive use in the private sector (think of, for example, investments in infrastructure).

However, government expenditures should be financed and this is done by a proportional tax on income (which is assumed to be such that the government runs a balanced budget). It turns out that in this fairly simple model of endogenous growth, the effect of increased government spending on economic growth is non-monotonic. With a small size of the government, the productivity effect dominates and there is a positive relation between growth and the size of the government. As the government becomes larger, the distortionary effect of the taxes that have to be raised to finance the expenditures becomes more important and beyond a certain size of the government, the relation between growth and the size of the government becomes negative. There is, in other words, a hump-shaped relation between the size of the government and the rate of economic growth, implying some optimal size of the government. Clearly, it is not obvious beforehand from this model whether one should empirically expect a positive or negative relationship between growth and taxes. The answer on this question depends on whether governments in the countries under consideration are on, below or above their optimal size. This relationship is in any case non-linear.

This basic result has been reestablished in various other studies in some way or another. For example, Glomm and Ravikumar (1994a and 1994b) consider the relationship between

government spending on infrastructure or education and economic growth. The implications their models yield depend, in general, on how the expenditures are being conceived (i.e., being productive or just as throwing money into the sea), and how they look at the effects of taxes that have to be raised in order to finance the expenditures. The general empirical implications that seem to follow from these models are that one expects a positive (partial) correlation of growth with productive expenditures (on, for example, education and infrastructure) and a negative (partial) correlation with government consumption and distortionary taxes. However, it is important to note that there is no uniformity in these models and that there are not many clear, testable implications that follow from the literature. Most agreement exists probably on the fact that the relation between fiscal policy and economic growth is non-linear and depends on various partial effects that are difficult to disentangle.

Despite this fact, much empirical work has been done in the field of the relationship between fiscal policy and economic growth and we will discuss some of the evidence that follows from this work in the next section.

In conclusion, theoretical studies have described various channels through which fiscal policy might affect economic growth. The relation seems to be rather complex and to depend on various partial effects, implying many complex trade-offs between the potentially beneficial effects of government services provided and the negative effects of distortionary taxes on economic growth and development.

7.2 Taxation policy and development

Fiscal policy can foster growth and human development through a number of different channels. These channels include the macroeconomic (for example, through the influence of the budget deficit on growth) as well as the microeconomic (through its influence on the efficiency of resource use). From a macroeconomic perspective, one of the central insights from past research on developing countries is that prudent fiscal policy that is, low budget deficits and low levels of public debt is a key ingredient for economic growth, which in turn is essential for reducing

poverty and improving social outcomes. Small budget deficits also reduce the risk of economic crises caused by concerns about the government's ability to service its debt.

In many developing countries, interest income, if taxed at all, is taxed as a final withholding tax at a rate substantially below both the top marginal personal and corporate income tax rate. For taxpayers with mainly wage income, this is an acceptable compromise between theoretical correctness and practical feasibility. For those with business income, however, the low tax rate on interest income coupled with full deductibility of interest expenditure implies that significant tax savings could be realized through fairly straightforward arbitrage transactions. Hence it is important to target carefully the application of final withholding on interest income: final withholding should not be applied if the taxpayer has business income.

Developing countries face formidable challenges when they attempt to establish efficient tax systems. First, most workers in these countries are typically employed in agriculture or in small, informal enterprises. As they are seldom paid a regular, fixed wage, their earnings fluctuate, and many are paid in cash, "off the books." The base for an income tax is therefore hard to calculate. Nor do workers in these countries typically spend their earnings in large stores that keep accurate records of sales and inventories. As a result, modern means of raising revenue, such as income taxes and consumer taxes, play a diminished role in these economies, and the possibility that the government will achieve high tax levels is virtually excluded.

The effect of fiscal policy on economic growth is a controversial and long-standing topic in economic theory, empirical research, and economic policymaking. It is at the heart of the policy debate surrounding the sharp increases in official developing countries budget surpluses in the 1990s, the equally sharp decline in the fiscal outlook, and the increasingly imminent retirement of the baby boom generation. The issue will receive further attention in the wake of recent calls for new tax cuts and increased spending on defense, homeland security, Medicare, and other programs. It is difficult to create an efficient tax administration without a well-educated and well-trained staff, when money is lacking to pay good wages to tax officials and to computerize the operation (or even to provide efficient telephone and mail services), and when taxpayers have limited ability to keep accounts. As a result, governments often take the path of

least resistance, developing tax systems that allow them to exploit whatever options are available rather than establishing rational, modern, and efficient tax systems.(Vito Tanzi, Howell Zee: Tax Policy for Developing Countries: International Monetary Fund March 2001)

7.3 Taxation and tax policy

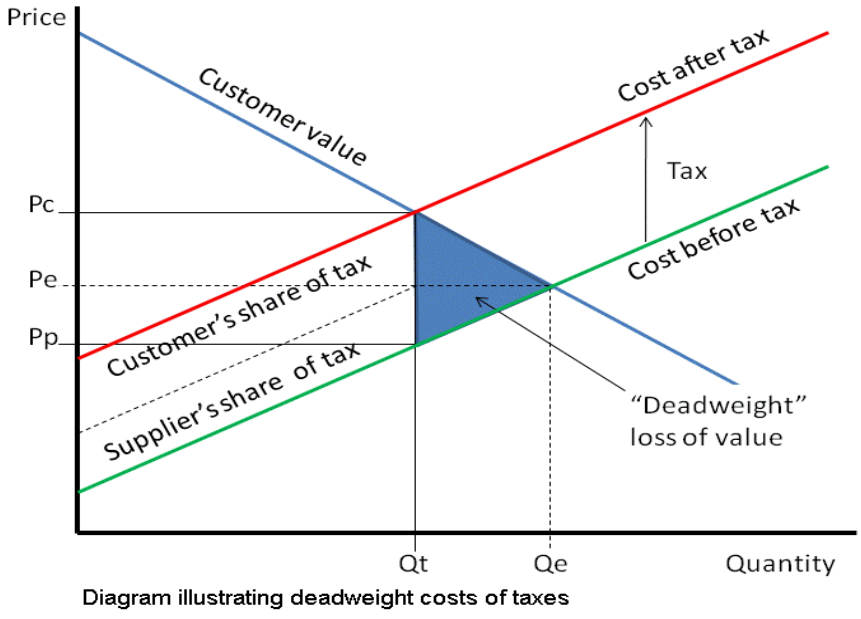
In monetary economies prior to fiat banking, a critical form of taxation was seignior age, the tax on the creation of money. Some principalities taxed windows, doors, or cabinets to reduce consumption of imported glass and hardware. Armoires, hutches, and wardrobes were employed to evade taxes on doors and cabinets. In some circumstances, taxes are also used to enforce public policy like congestion charge (to cut road traffic and encourage public transport) in London. In Tsarist Russia, taxes were clamped on beards. Today, one of the most-complicated taxation systems worldwide is in Germany. Three quarters of the world's taxation literature refers to the German system. There are 118 laws, 185 forms, and 96,000 regulations, spending €3.7 billion to collect the income tax. Today, governments in more advanced economies in (i.e. Europe and North America) tend to rely more on direct taxes, while developing economies (i.e. India and several African countries) rely more on indirect taxes.

In economic terms, taxation transfers wealth from households or businesses to the government of a nation. The side-effects of taxation and theories about how best to tax are an important subject in microeconomics. Taxation is almost never a simple transfer of wealth. Economic theories of taxation approach the question of how to maximize economic welfare through taxation.

Law establishes from whom a tax is collected. In many countries, taxes are imposed on business (such as corporate taxes or portions of payroll taxes). However, who ultimately pays the tax (the tax "burden") is determined by the marketplace as taxes become embedded into production costs. Economic theory suggests that the economic effect of tax does not necessarily fall at the point where it is legally levied. For instance, a tax on employment paid by employers will impact on the employee, at least in the long run. The greatest share of the tax burden tends to fall on the most inelastic factor involved—the part of the transaction which is affected least by a

change in price. So, for instance, a tax on wages in a town will (at least in the long run) affect property-owners in that area.

Figure 13: Diagram showing how tax is dispersed and deadweight loss of efficiency arises: Diagram illustrating taxes effect



Depending on how quantities supplied and demanded vary with price (the "elasticity's" of supply and demand), a tax can be absorbed by the seller (in the form of lower pre-tax prices), or by the buyer (in the form of higher post-tax prices). If the elasticity of supply is low, more of the tax will be paid by the supplier. If the elasticity of demand is low, more will be paid by the customer; and, contrariwise for the cases where those elasticity's are high. If the seller is a competitive firm, the tax burden is distributed over the factors of production depending on the elasticity's thereof; this includes workers (in the form of lower wages), capital investors (in the form of loss to shareholders), landowners (in the form of lower rents), entrepreneurs (in the form of lower wages of superintendence) and customers (in the form of higher prices).

To illustrate this relationship, suppose that the market price of a product is $1.00, and that a $0.50 tax is imposed on the product that, by law, is to be collected from the seller. If the product has an elastic demand, a greater portion of the tax will be absorbed by the seller. This is because goods with elastic demand cause a large decline in quantity demanded for a small increase in price. Therefore in order to stabilize sales, the seller absorbs more of the additional tax burden. For example, the seller might drop the price of the product to $0.70 so that, after adding in the tax, the buyer pays a total of $1.20, or $0.20 more than he did before the $0.50 tax was imposed. In this example, the buyer has paid $0.20 of the $0.50 tax (in the form of a post-tax price) and the seller has paid the remaining $0.30 (in the form of a lower pre-tax price).

Most taxes have side effects that reduce economic welfare, either by mandating unproductive labor (compliance costs) or by creating distortions to economic incentives (loss and perverse incentives).

Although governments must spend money on tax collection activities, some of the costs, particularly for keeping records and filling out forms, are borne by businesses and by private individuals. These are collectively called costs of compliance. More complex tax systems tend to have higher compliance costs.

In a competitive market the price of a particular economic good adjusts to ensure that all trades which benefit both the buyer and the seller of a good occur. The introduction of a tax causes the price received by the seller to be less than the cost to the buyer by the amount of the tax. This causes fewer transactions to occur, which reduces economic welfare; the individuals or businesses involved are less well off than before the tax. The tax burden and the amount of deadweight cost is dependent on the elasticity of supply and demand for the good taxed.

Most taxes including income tax and sales tax can have significant deadweight costs. The only way to avoid deadweight costs in an economy that is generally competitive is to refrain from taxes that change economic incentives. Such taxes include the land value tax. (McCluskey, William J: Franzsen 2005).

Where the tax is on a good in completely inelastic supply, a lump sum tax such as a poll tax (head tax) which is paid by all adults regardless of their choices, arguably a windfall profits tax which is entirely unanticipated can also fall into this category.

Complexity of the tax code in developed economies offer perverse tax incentives. The more details of tax policy there are, the more opportunities for legal tax avoidance and illegal tax evasion. These not only result in lost revenue, but involve additional costs: for instance, payments made for tax advice are essentially deadweight costs because they add no wealth to the economy. Perverse incentives also occur because of non-taxable 'hidden' transactions; for instance, a sale from one company to another might be liable for sales tax, but if the same goods were shipped from one branch of a corporation to another, no tax would be payable.

To address these issues, economists often suggest simple and transparent tax structures which avoid providing loopholes. Sales tax, for instance, can be replaced with a tax which disregards intermediate transactions. If a tax is paid on outsourced services that are not also charged on services performed for oneself, then it may be cheaper to perform the services oneself than to pay someone else even considering losses in economic efficiency. For example, suppose jobs A and B are both valued at $1 on the market. And suppose that because of your unique abilities, you can do job A twice over (100% extra output) in the same effort as it would take you to do job B. But job B is the one that you need done right now. Under perfect division of labor, you would do job A and somebody else would do job B. Your unique abilities would always be rewarded.

Income taxation has the worst effect on division of labor in the form of barter. Suppose that the person doing job B is actually interested in having job A done for him. Now suppose you could amazingly do job A four times over, selling half your work on the market for cash just to pay your tax bill. The other half of the work you do for somebody who does job B twice over but he has to sell off half to pay his tax bill. You're left with one unit of job B, but only if you were 400% as productive doing job A! In this case of 50% tax on barter income, anything less than 400% productivity will cause the division of labor to fail.

In summary, depending on the situation a 50% tax rate can cause the division of labor to fail even where productivity gains of up to 300% would have resulted. Even a mere 30% tax rate can negate the advantage of a 100% productivity gain (Johnsson, Richard, 2004). The existence of a tax can increase economic efficiency in some cases. If there is a negative externality associated with a good, meaning that it has negative effects not felt by the consumer, then a free market will trade too much of that good. By taxing the good, the government can increase overall welfare as well as raising revenue.

According to most political philosophies, taxes are justified as they fund activities that are necessary and beneficial to society. Additionally, progressive taxation can be used to reduce economic in a society. According to this view, taxation in modern nation-states benefits the majority of the population and social development.[Population and Social Integration Section (PSIS), United Nations Social and Economic Commission for Asia and the Pacific]. A common presentation of this view, paraphrasing various statements by Oliver Wendell Holmes, Jr. is "Taxes are the price of civilization"].

For traditional conservatives, the payment of taxation is justified as part of the general obligations of citizens to obey the law and support established institutions. The conservative position is encapsulated in perhaps the most famous adage of public finance, "An old tax is a good tax".[Tax History Project: The Depression and Reform: FDR's Search for Tax Revision in N.Y. (Copyright, 2003, Tax Analysts)]. Conservatives advocate the "fundamental conservative premise that no one should be excused from paying for government, lest they come to believe that government is costless to them with the certain consequence that they will demand more government 'services'.

Compulsory taxation of individuals, such as income tax, is often justified on grounds including territorial sovereignty, and the social contract. Defenders of business taxation argue that it is an efficient method of taxing income that ultimately flows to individuals, or that separate taxation of business is justified on the grounds that commercial activity necessarily involves use of publicly established and maintained economic infrastructure, and that businesses are in effect charged for this use (Van Der Graaf, Rieke and Johannes J.M.Van Delden 2009)

In economics, the Laffer curve is a theoretical representation of the relationship between government revenue raised by taxation and all possible rates of taxation. It is used to illustrate the concept of taxable income elasticity (that taxable income will change in response to changes in the rate of taxation). The curve is constructed by thought experiment. First, the amount of tax revenue raised at the extreme tax rates of 0% and 100% is considered. It is clear that a 0% tax rate raises no revenue, but the Laffer curve hypothesis is that a 100% tax rate will also generate no revenue because at such a rate there is no longer any incentive for a rational taxpayer to earn any income, thus the revenue raised will be 100% of nothing. If both a 0% rate and 100% rate of taxation generate no revenue, it follows from the extreme value theorem that there must exists at least one rate in between where tax revenue would be a maximum. The Laffer curve is typically represented as a graph which starts at 0% tax, zero revenue, rises to a maximum rate of revenue raised at an intermediate rate of taxation and then falls again to zero revenue at a 100% tax rate.

One potential result of the Laffer curve is that increasing tax rates beyond a certain point will become counterproductive for raising further tax revenue. A hypothetical Laffer curve for any given economy can only be estimated and such estimates are sometimes controversial. The New Palgrave Dictionary of Economics reports that estimates of revenue-maximizing tax rates have varied widely, with a mid-range of around 70%. (Fullerton, Don: 2008).

Most governments take revenue which exceeds that which can be provided by non distortionary taxes or through taxes which give a double dividend. Optimal taxation theory is the branch of economics that considers how taxes can be structured to give the least deadweight costs, or to give the best outcomes in terms of social welfare. The Ramsey problem deals with minimizing deadweight costs. Because deadweight costs are related to the elasticity of supply and demand for a good, it follows that putting the highest tax rates on the goods for which there is most inelastic supply and demand will result in the least overall deadweight costs. Some economists sought to integrate optimal tax theory with the social welfare function, which is the economic expression of the idea that equality is valuable to a greater or lesser extent. If individuals experience diminishing returns from income, then the optimum distribution of income for society involves a progressive income tax. Mirrlees optimal income tax is a detailed

theoretical model of the optimum progressive income tax along these lines. Over the last years the validity of the theory of optimal taxation was discussed by many political economists.

7.4 Taxation and tax policy in Turkey

Turkey is focused on this year's election and its potential to bring a new approach to the Turkish economy and tax policy. The mid-June 2011 parliamentary election will select representatives of the Grand National Assembly of Turkey.

Following the election, the new Government, including the Prime Minister and Cabinet, will be formed. Turkey is currently governed by a single party government, not a coalition. If the results of the election call for a coalition government, the economy may be affected by uncertainty regarding the political future. As the elections get closer, there is a possibility that the Government might discard the stabilization program and introduce an election economy despite its assurances that it will not do so. The decrease in direct taxes and increase in indirect taxes is considered to be one of the main tax policy outlooks of the Turkish economy. The increase was primarily driven by the increased taxes on fuel, alcoholic beverages and tobacco products and was introduced in December 2010. Public and nongovernmental organizations have reacted to the increase in indirect taxes. The Turkish Industry and Business Association (TÜSİAD) stated that Turkish taxpayers are in need of a new taxation system that is basic, fair and efficient for all. Recent tax policy changes in 2009–10• In February 2009, Law 5838 regarding a reduced corporate income tax rate was enacted. The reduced rate is only available under certain circumstances, and in order to benefit from the reduced corporate tax rate, an investment incentive certificate must be obtained from the Under secretariat of Treasury. Thereafter, only the income arising from the investments will be subject to the reduced corporate tax rate:

- The special communication tax collected from internet access services has been decreased, and the amount and period of the short-working payment, which is the payment for the unemployed, has been prolonged.
- The law regarding the regulation of payments with checks and protection of the check holder was enacted in December 2009.

- In July 2010, the law extending the period of investment allowance but limiting the amount to be subject to the investment allowance exemption was enacted. Accordingly, the amount subject to a reduction shall not exceed the 25% of the income arising from investments.
- A communiqué regarding the tax inspection procedure was regulated in detail, and control of the reports prepared by the tax inspectors was tightened.
- Fiscal discipline will continue despite the election. This will help to avoid a drop in tax collections that may result from minimum wage restraint, as many workers declare only the minimum wage rather than their true income.
- Fiscal measures will be taken to balance indirect and direct taxes.
- Increased enforcement of existing taxes is expected.
- Turkey is increasing its use of exchange of information agreements.
- An increase in tax revenues is expected due to the tax amnesty.
- Following the legalization of the tax amnesty, tax inspections are expected to be more severe and frequent.
- Turkey's GDP expanded 1.10% in the third quarter of 2010 over the previous quarter. In the first nine months of 2010, Turkey's average quarterly GDP growth was 8.9%.
- Turkey had a budget deficit of TRY52.8b in 2009 and TRY39.6b in
- 2010.
- Turkish lawmakers have approved the 2011 national budget, which foresees a deficit of 2.8% of GDP.
- Turkey's budget deficit is almost triple the figure it reported 12 months ago.
- The Government has pledged to keep budgetary spending in check ahead of parliamentary elections in mid June. No tax decrease is expected, but there is a question as to whether there should be a tax increase on petroleum products and alcoholic beverages.
- Disciplined and prudent fiscal and monetary policies on the macroeconomic front have helped reduce the account deficit, public debt and borrowing costs.2011 headline tax rates

(as of 1 January 2011) February 2011 Expected legalization of tax amnesty Mid-June 2011 Election of Grand National Assembly of Turkey. Top federal (national) corporate tax rate20%. Top federal (national) personal income tax rate35%, standard VAT rate 18%.

7.5 Income Tax for an Individual in Turkey

An individual in Turkey is liable for tax on his income as an employee and on income as a self-employed person. In the case of an individual who answers the test of a "permanent resident", the tax will be calculated on his income earned in Turkey and overseas. A foreign resident who is employed in Turkey pays tax only on his income in Turkey.

To be considered Turkish resident, residence of over 6 months in Turkey during any calendar tax year must be established.

An employer is obligated to deduct, immediately, each month, the amount of tax and national insurance due from a salaried worker.

A self-employed individual is obligated to make advance payments on income tax that will be offset on filing an annual report. In the case of a new business, the advance payments will be calculated according to the estimates of the owner of the business. The advance payments will be made 4 times in each year.

The standard rate for payments in advance of income tax in Turkey is 15% of the net profit. Certain payments are deducted from taxable income as detailed below.

Capital gains are usually added to the normal income.

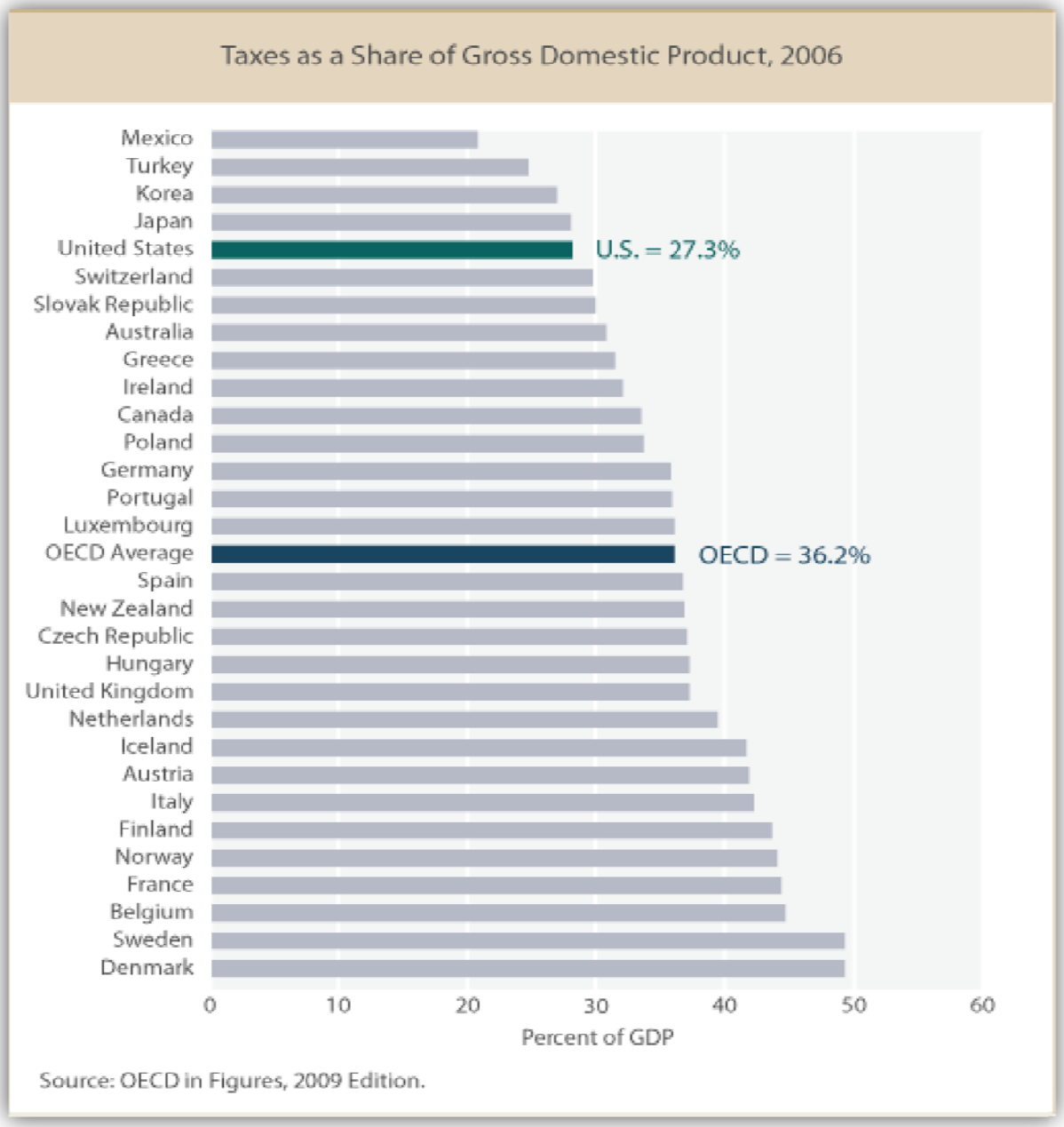
Table 5: Turkey individual income tax rates 2011

Tax %	The Tax Base (YTL)
15	0-9,400
20	9,401-23,000
27	23,001-80,000
35	80,001 and over

Turkey Corporate Tax

The 2011 tax rate applicable to corporations in Turkey is 20%. Capital gains tax in a corporation is usually added to the regular income of the corporation. There is a participation exemption for dividend received from a non-resident company by a Turkish company, subject to terms.

Figure 14: taxes as a share of Gross Domestic Product



7.6 Taxation and tax policy in Libya

Libya's system of taxation is based on numerous laws and regulations, including not only the laws that establish a specific procedure for the calculation and levying of taxes, but the specific nature of Libyan legislation on this issue, and the main function of Libyan legislation on the issue of taxation is to ensure the highest possible level revenues to the state budget by levying taxes. As private enterprise in the production of very poorly developed, and foreign direct investment, except for the oil industry in the country are not allowed, then the system of taxation is purely fiscal in nature and does not exert any influence on the development of the productive forces of society.

The method of calculating the amount of taxes on revenue from corporations and individuals, the principle of a progressive tax, which can reach 90% and practically limits the upper level of earned income. In this regard, the tax system in Libya is egalitarian nature in order to maintain social balance. With respect to foreign contractors engaged in implementation of projects of economic development, the principle of a fixed income tax is determined at a rate of 15% of the contract price. If the actual income differs from the 15% value, the difference shall be paid by the contractor or the Internal Revenue Service by the customer depending on the direction in which the deviation occurred.

Set of laws that make the tax system in Libya, puts the taxpayer, especially foreign individuals and legal entities, in completely unequal conditions in relation to the official tax administration and allows for a variety of interpretations of laws on the basis of the numerous statements in favor of the tax administration. By order of the Tax Department in respect of foreign tax in Libya can be applied to the most severe sanctions up to the ban on leaving the country.

Customs legislation the customs tariff is based on Libya, "the Brussels Customs Nomenclature." Fees determined by the customs tariff on May 7, 1974, and significant changes over time, including in 1998, has remained. The list of goods in the tariff is presented in the form of commodity groups, and the structure of the tariff is a single-line and distributed equally to all

countries. At the same time stipulated the possibility of offering discounts to the current tariff for goods imported from countries that in Libya, according to trade agreements submitted to MFN. However, in practice these provisions are not implemented: in its trade practices, Libya is not to establish any customs preferences for certain of its trading partners.

Size duties ranging from 5 to 60% or more of the price of the goods. At the same goods, demand for which is determined by the needs of economic development (Nefteprom , agriculture) or are exempt from customs duties or fees on them is 10-15% of the price. Tractors and the majority of agricultural equipment are subject to duty at 50%. Tractors for road construction are subject to taxes at 70%, and for other purposes 90%; tractors received in disassembled or semi-assembled form, with the further assembly of the tractor in the Libyan company - 20%, vehicles for special purposes (tractors, repairs, fire) are subject to duty of 20%, passenger cars - depending on engine size from 60 to 300%. Not subject to customs duties and spare parts imported to Libya for processing, provided that these products or parts of this material will be removed from the country within one year from the date of importation.

The exceptions are parts for Libya's factories that manufacture products for the Libyan market, while customs duties are as follows: for trucks - 40% of TVs - 30%, refrigerators - 30%, etc. Fees may be amended only by a decision of the Secretariat for Finance, which must be approved by OWC. along with this, with all kinds of imported goods are subject to city tax at a rate of 5% of the tariff, as well as by the decision of local authorities, there may be additional payments. Payment of fees in local currency, and if the cost of goods denominated in foreign currency, it is translated into dinars at the rate of the Central Bank on the day of conversion. Duties of the price of the goods shall be calculated on the basis of CIF Libyan port.

According to customs legislation, in the case of a dispute or difficulty in determining whether to be or not to be given to the owner of dutiable goods, the goods should be considered subject to taxation. If a dispute or difficulty arose in determining the origin of the goods to any of two or more categories of goods should be classified in the highest category.

Oil in Libya continues to be the main source of hard currency. Since 1993, OPEC was on SNLAD quota on oil production at a rate of 1.39 mln B/D. Libya has been and remains opposed increasing the OPEC quota on oil production. Thus, in the middle of January. 1998 Libya has called on OPEC to abandon the quota increase, noting that it is ready to abandon its new quota (1.52 mln B/D), if other OPEC members also will be used to reduce oil production.

As a result of international sanctions taken against Libya, in accordance with UNSC Resolutions № 731, № 748 (1992) and the number 883 (1993), and prohibiting, in particular, imports of certain types of oilfield equipment, oil industry of the country was experiencing great difficulties. Increasing the number of oil production in Libya is very problematic for technical reasons. By the end of 1998, exports of Libya (95% - oil) amounted to 7.73 billion dollars. Which is 17% lower than in 1997 to its previous level of exports will approach, as expected, only in 1999 monetary deficit amounted to 1.9 billion dollars. (Or 15.8% of GNP). The government hopes to at least partially compensate for this deficit.

Basis Libyan economy the oil producing and refining industry in 1998 oil production was 73 million tons (In 1997 - 83.2 million tons) and petroleum products - 20 million tons In proven reserves of raw materials (up to 4 billion tonnes), as well as the level of per capita income (about 6 thousand dollars. Per year), Libya is one of the first places in Africa. There are large reserves of iron ore (3.5 billion tonnes), gas (in 1998 produced 12.1 billion cubic meters), phosphates, and gypsum. GDP in 1998 was 23 billion dollars. (In 1997 - 23.9 billion dollars.) And formed by oil and gas sector (30%), services (31%), trade and finance (11%), industry (10%), construction (13%), agriculture (5%). Among the largest of the manufacturing industry-met complex in Misurata City (currently, the production increased to 800 tons of metal per year), several oil refineries, manufacturers of cement, pipes, electric cables, tractor - and car assembly plants.

Socio economic development of the country until the mid 80s. Performed on a scheduled basis (five-year periods) the share of state sector in industry 90%, agriculture 25%.Their own skilled labor force is not enough, about half of those employed in the economy (more than 1 million.) - Foreigners, especially the Egyptians, as well as immigrants from neighboring African

countries. At the same time there is high unemployment, especially among young people (30%). Inflation in 1998 was 24% (in previous years was at 35-40%).

Due to the overall unfavorable price movements in the world oil market in recent years and as a result - a significant decrease in revenues from oil exports (from 22 billion. in 1980 to 10 billion in 1992 and 6.5 billion in 1998, when a precipitous drop in oil prices SNLAD export revenues compared to 1997 decreased by 30%) of monetary Libya, the financial position worsened. However, the country retains a fairly high paying (international reserves reach 7 billion.). External debt is estimated at 7 billion dollars. Dominant role in foreign economic relations SNLAD are Italy, Germany, Britain, France, Spain, Japan, South Korea - 75% of their total volume. Libya turnover with foreign countries in 1998 amounted to 12.7 billion dollars. (1997 - $ 16 billion).

Transport and communications in Libya there is no railroads. Major highways of the modern type length 1882 km. runs along the Mediterranean coast from the border with Tunisia to the border with the ARE. Constructed highway linking Tripoli with GG Sebha and Ghat (1,350 km). And Mr. Adzhdabiya oasis of Kufra (626 km).. The total length of highways is more than 15 thousand km In 1975 the airline was created “Libyan Erab Airlines 'operating until April 15. 1992 flights from Tripoli and Benghazi, Damascus, Beirut, Rabat, Algiers, Tunis, Paris, Rome, Athens, Moscow and Sofia. According to the UN Security Council Resolution № 748 of March 31, 1992 regarding embargoes SNLAD operated aircraft (suspended since April 5., 1999). Major civil airports: Tripoli, Benin (Benghazi), Sebha , Ghadames .

Sea ports: Tripoli, Benghazi , Tobruk , Misurata , turf, Marsa Brega. The annual capacity of 80 million tons of Libyan ports in the late 80s. Al-Gaddafi has taken steps to liberalize the economic and political spheres. They began to be encouraged cooperative ownership, a private trade, have been released many political prisoners, allowed free entry and exit from the country. In June 1988 on the initiative of an extraordinary session of the INC SNLAD proclaimed the so-called "Green Declaration of Human Rights in the Age of the Masses", partially replacing the constitution, which is not in accordance with the provisions of the TMT.

At present, there is a campaign of privatization, corporatization and even privatization of some, including large manufacturing enterprises (up steelworks in Misurata). As vitally important goals proclaimed natural resources, alternative oil and gas, to achieve self-sufficiency SNLAD food, accelerated development of the interior of the country, etc.

Oil and gas complex, which includes oil and gas production, refining and petrochemical industries, is the basis of the Libyan economy. It accounts for more than 90% of budget revenues and 95% of foreign exchange earnings. Revenues from the Libyan oil exports totaled 8.2 billion dollars in 1996., And in 1997 - 9 billion. In recent years there have been structural changes in the economy. As a result, the share of oil and gas sector in GDP has declined from 80-85% to 30% in 1997-98. 11% of GDP generated through trade and finance industry provides 10%, 13% - construction, 31% - services, 5% - agriculture. Libya's GDP in 1998 was 23 billion dollars.

During 1998 the world oil market experienced a significant decline in prices. In 1998 they were reduced to 8.4 dollars per barrel, which was the lowest in the last few years. If in 1997 the average price of oil reached $ 19 per barrel, in 1998 the average had fallen to 13.8 dollars a number of activities of OPEC to stabilize oil market (in particular, the reduction of the member countries of the organization's oil production to balancing supply and demand) did not bring the desired results. Where the dominant sector of the economy continues to be the oil industry, it turned into tangible monetary losses in the budget in which revenues from oil exports have traditionally been the main component. For example, in 1998 the volume of oil equal to 70 million tons SNLAD, but from its sales of 6.5 billion dollars has been received. Whereas in 1997 - 9.5 billion on the Libyan economy, this situation has affected the most negative way. In the first place, began to decline in the imports of the country, and with it, and turnover (compared to 1997 - by 10% and 20% respectively).

In 1998 the Libyan leadership again failed to provide non deficit budget, actual expenditures for which exceeded the planned estimate of 5-10%. The deficit amounted to 3 billion dollars of GDP. It is down by 0.5% compared with 1997.

This situation cannot but disturb the Libyan rulers, who rightly consider the inflation rate, budget deficit as a factor in the deteriorating socio-economic situation in the country. Already in 1998 SNLAD leadership has begun to take measures which in his opinion could stabilize the economy. So, in November 1998 was devalued the official exchange rate of the Libyan dinar to the dollar - from 0.38 lib. din. for $ 1 to 0.45 lib. din. for $ 1. Meanwhile, many imported goods are still sold the Libyan foreign traders at the rate of 2.8-3 lib. din. for $ 1 (this is valid, and the official exchange rate at present). Thus, the devaluation of almost reduced the gap between official and black dinar exchange rate and inflation continues to gain momentum (in 1998 it amounted to 24%).

In the area of fiscal policy Libyan government officially declared the line on the "marginal cost". At the session of the INC, which was held December 8-15. 1998, was presented the budget for 1999 amounting to 5.3 mlrd.din. (13.2 billion dollars. At the official exchange rate). Again, as one of its major revenue items declared the planned revenues from oil exports - 3.27 mlrd.din. (7.26 billion dollars.). Speaking at the session ministry finance said that government spending will be reduced to "a strict minimum" of 4.9 billion liv.din . (10.9 billion dollars.). Announced a sharp reduction in the cost of representation SNLAD abroad and the organization of various celebrations. There will be no new investment costs, the projects have not yet begun to be carried out and recorded in the budget, frozen for an indefinite period. It is estimated that overall investment will be reduced by 25-30% (this, however, will not affect the oil sector and a number of projects in the energy sector). In order to save foreign currency by foreign firms allowed to enter into contracts for the construction of public buildings, schools, roads and small plants. The central treasury in the future will be able to dispose of tax receipts Shaabi (shaabiyya - the new administrative-territorial unit in the Jamahiriya), who are forbidden to spend they receive as income funds. In turn, the Central Bank abandoned the practice of sharing at a reduced rate of $ 500 Libyan families, traveling abroad, citing the depletion of foreign exchange reserves (in the period from June 1997 to Sept. In 1998 for this purpose spent 356 million dollars.) Treasury warned that you may experience difficulties with payment of the workers, state employees (there are about 700 thousand). It is planned to freeze hiring to work and to encourage civil servants to earlier retirement. It is unclear, however, if they can find employment in other sectors of the Libyan economy.

Meanwhile, the decline in the influx of petrodollars one of the outputs of the current situation it would be to diversify the economy, promoting development of industry and agriculture. By 1998 over repeatedly called for the INC, who gave the order mini planning to work to identify priority industrial projects, which would be able to create an alternative source of oil profits. The Libyan economy, with the exception supported by domestic and foreign investment oil and gas sector has stagnated since the mid 1980-x's., and today its share in GDP is only 42%, and this figure has a tendency to decrease. The development of the trade and the private sector slowed down as the sanctions imposed against Libya in the UN Security Council in 1992-93., And to a certain degree of negative attitude toward these phenomena of the authorities, who regard the merchant, "people who want to unlimited profit and fabulous income." For this reason, they are periodically subjected to strict quality control.

Attempts Libyan leadership to redecoration of the economy are unlikely to succeed in the Jamahiriya system. Improve the situation have significant price increases on the world oil market, which consistently achieves SNLAD. Back in January 1996, it called on the Department of Energy through the OPEC countries significantly reduce their oil quotas, expressing a willingness to do it first. At the end of March 1999 OPEC was finally able to agree not only on the reduction of oil production (1.3 million b / d), but also coordinate with the major exporting countries outside the organization (Russia, Mexico .) By early April, the first time in 1999 the price for a barrel of oil rose to 14.3 dollars stabilization of world oil market may partially mitigate the crisis of the Libyan economy, the needy, however, in market reforms and gradual liberalization.

The explored oil reserves, Libya ranks first in Africa and the fifth of OPEC member countries (after Saudi Arabia, Kuwait, UAE, Iraq). The share SNLAD is about 2% of the world's oil resources. Libyan oil proven reserves account for 29.5 mlrd.barr . In addition to oil in Libya are rather large natural gas reserves (1.6 trillion cubic meters, the third largest in Africa), there are reserves of iron ore, phosphates, gypsum.

Proven oil reserves are estimated at 45.5 mlrd.barr . According to the International Energy Agency, oil production in December SNLAD. In 1997 reached 1.45 million barrels per day (b / d) but by the middle of 1998 decreased to 1.3 mb . The latter figure is less than even the new,

reduced OPEC quota for Libya, imposed in 1998 (1.52 mln.b / d). Apart from the desire to go to bed SNLAD policies of OPEC to raise oil prices can be explained by lack of development here, and existing fields, and until recently held sluggish development of new, as far back as 1970. their extensive use has been officially recognized by Tripoli against the interests of the state. Meanwhile, experts predict that in case of failure of a major development of new oil production in SNLAD can drop to a mln.b / d by early next century, and by 2010 - and up to 0.8 mln.b / d The system of concessional rights to oil exploration. All oil operations in Libya within the purview of state . National Oil (NOCs), founded in 1970, its share of participation in each of the agreements on development and exploitation of oil fields - not less than 50%.

Oil exploration in the SNLAD conducted both national and joint operating companies and foreign companies that have received concession rights to oil exploration. Concessions are available in the form of "development agreements and equity participation in production» (EPSA). Foreign companies has their own oil search , in the case of a large open field and started its commercial operation is in conjunction with the NOC, the operating company. The cost of the concession depends, other things being equal, the geographic location of the concession area. The area of Libya is divided into 4 zones, distinguishable by the degree of probability of occurrence of oil out there.

Today is the third stage of production - ERSA-W. His conditions include reimbursement for oil production through planned production, the equal participation of partners (NOC and the foreign contractor) in expenditures for the development of an open field. Income distribution is regulated on a sliding scale, with a part, outgoing contractor is exempt from paying taxes and rent for the development of the field. PNC was forced to put forward the conditions referred to after work on contracts of EPSA-1, 2, yielded meager results due to their low economic efficiency for the contractor.

According to forecasts of the NOC, the performance of ERSA S adds at least another 2 billion barrels of oil to the already proven oil reserves. Agreement within the EPSA-Z have already been signed with companies "Shell" (Denmark), "OMB" (Austria), " Total "(France), "SagaPetroleum"(Norway)," Brazpetro "(Brazil)," Petrofina "(Belgium)," Lai "(UK)," Agip "(Ital

y)," Vinterhall "(Germany)," Husky Oil ","RIS","InternationalPetroleum Corporation "(Canada), goskonsortsiumom Y. Korea, a number of other corporations. Recently, a similar agreement signed with the Spanish "Repsol ", now develops oil field in southern SNLAD.

Development of promising oil fields deposit in Murzuke located on the south-west of the country, the NOC is given priority. The project is in its development of two phases is estimated at $ 1 billion., After completion of the performance deposit will be about 250 tys.b / d All contracts for the implementation of the 1st stage of the project have already been distributed. Total oil shale deposit in Murzuke contains estimated 800 million barrels. Oil. Was scheduled to start production in December 1998 to 50tys. b / d , bringing it to 2005 to 200 thousand b / d In 1998, PNC has signed an agreement for the development of this field with the European consortium of companies, " Repsol "(share - 45%)," Total "(30%) and OMV (30%). When the mine will begin production of products, NNK in the income share of 50%. deposit in Mabrouk (600 km. south of g.Sirt) was opened in 1959, but due to the high cost of the work (about $ 1 billion.) due to the complex geographical shelf for a long time it was suspended. Mabrukskoe deposit contains 1.3 mlrd.barr. Oil. In its development in May 1993 NOC was signed for 35 years with the company " Total ", which, in turn, has leased 25% of the company" Saga Petroleum. " It formed a subsidiary company "Saga Petroleum Mabrouk AU ", which opened in 1996 a representative office in Tripoli.

Two-stage project to develop this field provides its initial reconnaissance to determine the commercial viability of further investment. If there are any to begin an intensive development of the entire field. Initially the company intends to use the operators field of oil shale in the west of Mabrouk (oil reserves - 50 mb .). By the end of 1999 it is planned to produce up to 30 tys.b / d " Total" and" Saga Petroleum "also engage in which presumably contain a total of about 2.1 mlrd.barr . oil. Storm (western chast Tripolitanii) in 1993, PNC entered into an agreement with the " Agip" that led pre-existing agreement in 1974 in compliance with the terms of ERSA-3. The share of " Agip "increased from 14 to 30%. In December. 1995, the company completed the first stage of field development (the entire program is estimated at $ 2 billion.), Increasing production from 65 thousand b / d to 80 thousand b / d Carried out the second stage, which will enable to increase productivity up to 150 thousand Explored reserves of the Storm -

5 mlrd.barr . Oil. As-Sarah (south-east to Libya). In August. 1994 completed the second stage of the development of this field, which allowed to increase oil production to 53 thousand b / d The field reserves - 250 million barrels . In 1995 the company " Vinterhall "engaged in its development, said that daily oil production is 60 thousand barrels per day. Concession to the field Kabir in 1991 was transferred to the company "AGOKO" (" Arabian Gulf Oyd Company ") wholly owned by NOC. After preparatory work in 1996 "AGOKO" announced the start of oil production in this field. By the beginning of 1998 of the subsoil, containing paraffin oil with a small amount of sulfur extracted up to 90 tys.b/d oil refining and distribution. Libya has operations in the petroleum refinery as its territory and abroad, spreading oil on the main European markets. The main markets for the same oil for SNLAD remain in Italy, Germany and Spain. Cleaning the Libyan oil and the production taking place in Italy, Germany and Switzerland, Libya has an extensive distributor network in these countries, while at the same time trying to penetrate the markets of Eastern. Europe.

On their own refineries in the state SNLAD recycle up to 40% of its oil. Their capacity is 342 thousand b / d in three similar plants in Europe - a total of about 300 thousand b / d Zawiya . Located north-west of the country, the plant was built by Italian experts. Its capacity - 108 thousand b / d , it is up to 70% meets the needs of the district of Tripoli, a part of production is exported. Ras Danuf . The plant was built by " Rasco ", in operation since 1985 has a capacity - 198 tys.b / d , but now it does not work at full strength. Most of the final product goes to the power plants operating on liquid fuel, as well as located near the chemical complex. Tobruk . The plant was built in 1985, its output 18 tys.b / d Sabha . Construction of the plant with a planned capacity of 20 tys.b / d , computed on the flow of oil from a nearby field in Murzuke not yet begun. In 1989, PNC transferred to a contract of Italian corporations Steep. It is expected that now, when working in Murzukskom field intensifies, the project will be resumed.

Government's strategy is to develop overseas oil refineries and expanding distributor network to provide sales of 400 thousand-450 tys.b / d through a region of the Mediterranean. In 1994 plans were announced to improve the refinery in Cremona (Italy) and the modernization of similar enterprises in Germany. It is also planned expansion of distributor network in Slovakia, Hungary and the Czech Republic. Libya is expected in such a way to compensate for their non-

participation in the Mediterranean Partnership. In addition, since 1996 has been removed from SNLAD being a developing country, which led to a new duty on products produced from oil.

Until Sept. 1993 Libya's interests abroad in matters of oil and distributorship operations represented by the company" Oiliness International", which was established a subsidiary," Oiliness Nederland "controlled NOC, LAFIKO and LAFB (Libyan Arab foreign bank). However, because of the sanctions measures taken against Libya, in accordance with UN Security Council resolutions number 733, № 748 (1992) and the number 883 (1993), was forced to pass SNLAD a controlling stake (55%), private Italian and German investors while retaining 45% of the shares. In an effort to stimulate the development of the gas sector in the industry, the government developed a plan for the construction of two pipelines, which will include new gas power plant in Benghazi , Zuetine , Homs and Tripoli into the national grid. In June 1996, NOC signed a 3 billion. with " Agip ". It provides for a project to build a giant pipeline (part of which runs along the seabed), which will link the field with p . gas in Libya with the single gas network in Italy (Sicily). Libya also committed themselves to develop several gas fields in its territory.

The development of new oil and gas exploration and intensification of existing work on, even to maintain oil production at the same level require the introduction of new advanced technologies, the replacement of obsolete and often worn-out equipment. As a result of international antilybian sanctions, the country's oil and gas industry is experiencing great difficulties. Particularly negative sanctions regime has affected its oil component, significantly (on average four times), increasing the cost of imported equipment, spare parts to it and transport it. Penalties hindered the further expansion of the Libyans and the new markets for oil, preventing the penetration of SNLAD U.S. companies, up to 1986 was very active in the Libyan oil sector (their capitals were frozen). Libya is not entered an international oil embargo, but the U.S. has unilaterally made a number of measures to obstruct the normal functioning of most oil and gas industry of Libya, making payments and payments to foreign contractors through the global banking system. In August 1996 the U.S. Congress enacted the law of D'Amato, providing for the imposition of sanctions by the U.S. government to foreign companies investing more than 40 million dollars. in the Libyan oil and gas sector (the law has drawn sharp criticism from the European Union, several of whose members - Italy, Germany, Spain - largely meet the needs of

its fuel and energy due to the Libyan oil and are interested in further development of comprehensive cooperation with the Jamahiriya in this field).

8. The economic development of Turkey and Libya

8.1 Economic indicators

When judging effects of fiscal policy on the economic development of country, it is necessary to show, how the important economic indicators goes through the time. There will be used following indicators in the dissertation: gross domestic product (GDP), GDP annual growth rate, GDP per capita, government budget and government debt to GDP.

8.1.1. Gross Domestic Product

Gross domestic product (GDP) is the market value (it means prices for final consumers) of all officially recognized final goods now and services (means that there are no services and goods, which cannot be received statistically) produced within a country in a given period of time GDP. In the dissertation it will be one year or quarter. GDP can be calculated by three methods and all of them should give the same result. The first method is product (output) approach, second is the income approach, and the third is expenditure approach. The most common method is the expenditure approach, which works on the principle that all of the goods must be bought by somebody, therefore the value of the total product must be equal to people's total expenditures in buying goods and services:

GDP = private consumption + gross investment + government spending + (exports − imports) (Samuelson and Nordhaus, 2007)

Private consumption is normally the largest GDP component which comprises household final consumption expenditure. These personal expenditures comprise from the following categories: durable goods, non-durable goods, and services.

Gross investment includes business investment in equipment like construction of a new mine, purchase of software, or purchase of machinery. But it does not include exchanges of existing assets. The interesting thing is that it includes spending by households on new houses.

Government spending is the sum of government expenditures on final goods and services like salaries of soldiers, teachers and other of public servants, operation of the military, education and transportation. But it does not include any transfer payments, such as social security or unemployment benefits.

Exports represent gross exports, which mean the amount of country goods and services produced for other nations' consumption.

Imports represent gross imports, which mean imported goods and services produced in foreign countries.

8.1.2. GDP Annual Growth Rate

The GDP Annual Growth Rate shows a percentage change in the GDP value which is described above compared to previous year or to the same quarter in the previous year. The GDP Annual Growth Rate represents how the important indicator such as GDP changes from year to the next year. It takes into account a full year of economic activity, thus avoiding the need to make any type of seasonal adjustment.

8.1.3. GDP per capita

The GDP per capita shows the GDP indicator at purchaser's prices in U.S. dollars divided by midyear population. Per capita is a Latin prepositional phrase: that could be translated as "by heads" and means per individual person. This term commonly used in a wide variety of statistical indicators, including government statistics and economic indicators. This indicator is here because, when making a comparison of economic wealth between two countries just GDP cannot be used because of different population. It makes sense that large countries has high GDP and small countries low, so it is necessary to divide country´s GDP by its population.

8.1.4. Government Budget

A government budget represents a document that is determined by the legislature (usually parliament), and approved by the president of a country. Fiscal policy has a high impact on

government budget, because the highest revenue is collected in the form of taxes. Property tax is commonly the basis for municipal and county revenues and sales tax and income tax are the basis for state revenues, while corporate tax is the basis for national revenues. We distinguish direct taxation, which tax the property or income of the person and indirect taxation, which tax the sale of goods or services. Direct taxes comprise from taxes on income of natural persons and legal entities, taxes on property, real estate transfer tax, inheritance and gift tax and road tax. Indirect Taxes comprise from excise tax, value added tax (VAT), social insurance and other income (European funds for members of European Union for example). Of course there are not only revenues but expenditures too, but I will talk about it in the next chapter.

What is important is that government budgets have not only an economic basis but also a political and technical basis. Government budget is not entirely designed to allocate scarce resources for the best economic use, but also have a political basis wherein different interests push and pull in an attempt to obtain benefits and avoid burdens. The technical element is the forecast of the likely levels of revenues and expenses.

8.1.5. Government Debt to GDP

The government budget comprises from two basic elements - revenues and expenses. I have already described revenues, which are derived primarily from taxes. Government expenses include spending on current goods and services, which economists call government consumption. It includes government expenditures on final goods and services like salaries of soldiers, teachers and other of public servants, operation of the military, education and transportation.

The government debt is the total debt of the government and it forms part of the public debt. Administrative organizations represent the people of the given country, so it can be considered that the government debt is the debt of individual taxpayers. The government debt is divided depending on who is the creditor of the state. There is an internal debt (creditors are citizens of the state and legal persons registered in it) and an external debt (creditors are foreign subjects). The other way for the less wealthy countries is to borrow from commercial banks or international institutions (eg the European or the World Bank).

Another common categorization of government debt is dividing by their maturity. They are divided into short-term (within one year), medium term (three years) and long term (over three years).

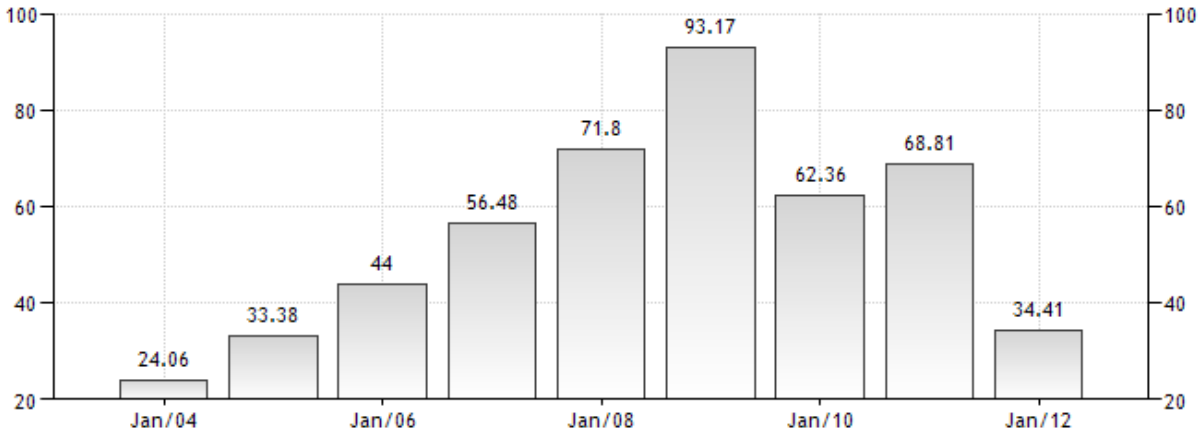
The government debt to GDP shows us how big is this difference between revenues and expenditures in the comparison to GDP in percentage and is generally used by investors to measure a country ability to make future payments on its debt, thus affecting the country borrowing costs and government bond yields.

8.2 The economic development of Libya

8.2.1 Gross Domestic Product in Libya

As it can be seen from the Figure 15 GDP in Libya was on the rise from 2004 up to 2009. But it dropped in 2010 due to the economic crisis and still has not recovered. Conversely it dropped even more in 2012 and is on the same level as it was in 2005. But it was not thanks to the financial crisis. In 2011 Libya went through a civil war that ousted the dictatorial regime. During the conflict oil production was disrupted which resulted in a GDP contraction of over 40 percent. Historically, from 1990 until 2011, Libya GDP averaged 39.4 USD Billion reaching an all time high of 93.2 USD Billion in December of 2008 and a record low of 19.8 USD Billion in December of 2002. As it was said, the Gross Domestic Product in Libya was worth 34.41 billion US dollars in 2012, which is under average of this value from 1990 to 2012. The GDP value of Libya now represents 0.06 percent of the world economy.

Figure 15: Gross Domestic Product in Libya in USD Billion in 2004 – 2012

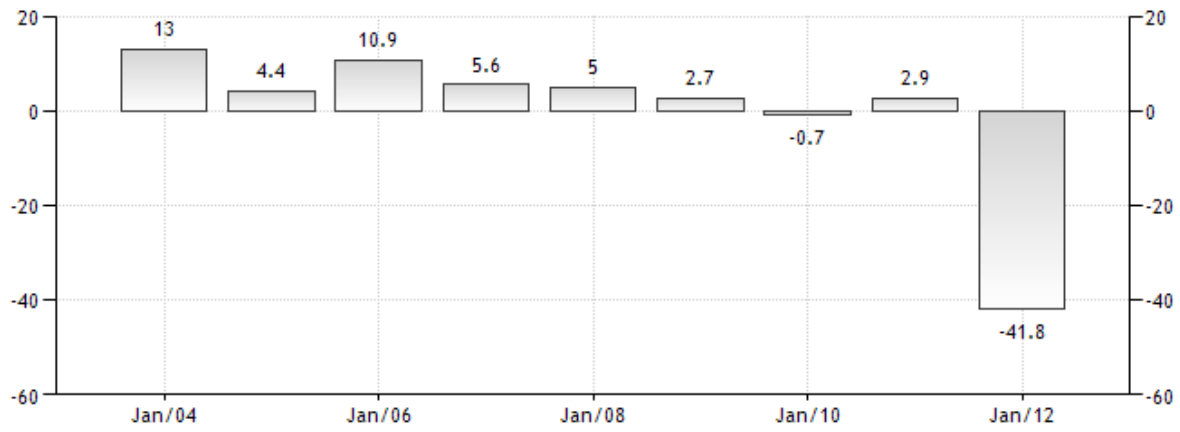


Source: The World Bank Group

8.2.2 GDP Annual Growth Rate in Libya

GDP Annual Growth Rate in Libya can be seen in Figure 16. It is showing the effects of the financial crisis, which is represented by year 2010 where the rise stopped and there is drop of 0.7 percent. But the impact of the civil war has more devastated influence on the growth of GDP in Libya. The GDP in Libya contracted 41.80 percent in 2012 from the previous year. Historically, from 2000 until 2011, Libya GDP Annual Growth Rate averaged 0.0 percent reaching an all time high of 13.0 percent in December of 2003 and a record low of -41.8 percent in December of 2011. Libya's territory has the largest oil reserves in Africa, which means it is one of the largest in the world thanks to the fact that 90 percent of Libya is a desert. The result is that Libya's economy is highly dependent on oil production which accounts for 94 percent of government revenues. Yet, it is expected that with the recovery of oil industry, the high rates of growth will be back.

Figure 16: GDP Annual Growth Rate in Libya in percentage in 2004 – 2012

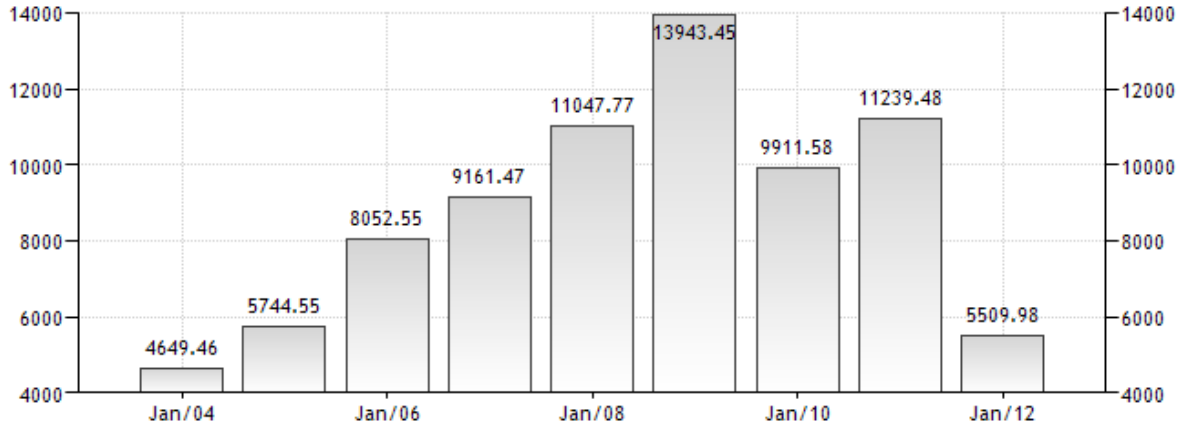


Source: The World Bank Group

8.2.3 GDP per capita in Libya

Even GDP per capita in Libya is showing catastrophic effects of the civil war in 2011 and it can be seen that the Gross Domestic Product per capita in Libya was recorded at 5509.98 US dollars in 2011. But still, Libya has one of the highest GDP per capita in Africa. The GDP per Capita in Libya is equivalent to 44 percent of the world's average. Historically, from 1980 until 2011, Libya GDP per capita averaged 7732.6 USD reaching an all time high of 13943.5 USD in December of 2008 and a record low of 3935.2 USD in December of 2002. For example GDP per capita in the Czech Republic was 26,208 USD in 2011

Figure 17: GDP per capita in Libya in USD in 2004 – 2012

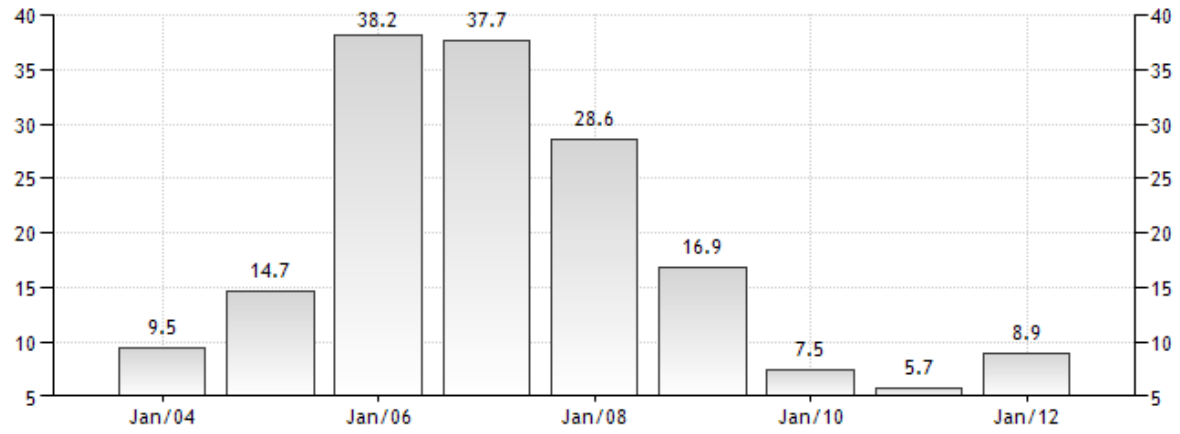


Source: The World Bank Group

8.2.4 Government Budget in Libya

The Figure 18 represents Government Budget in Libya in percentage of GDP. Libya recorded a Government Budget surplus equal to 8.90 percent of the country's Gross Domestic Product in 2011 which means that because their economics was badly injured thanks to the civil war they had to save the money. Historically, from 2003 until 2011, Libya Government Budget averaged 18.6 Percent of GDP reaching an all time high of 38.2 Percent of GDP in December of 2005 and a record low of 5.7 Percent of GDP in December of 2010. As it can be seen when their GDP is high, government budget steeply rises and even more portion of GDP goes to the army infrastructure and other. But when the GDP is low, Libya strictly cut government expenditures.

Figure 18: Government Budget in Libya in percentage of GDP in 2004 – 2012

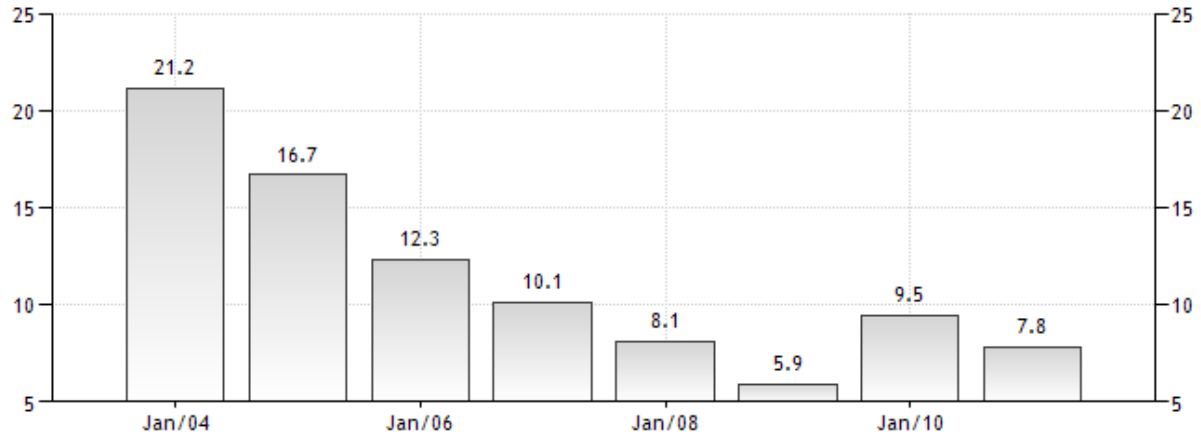


Source: The World Bank Group

8.2.5 Government Debt to GDP in Libya

According to the politics of strictly cutting expenditures when the GDP is low, Libya government debt to the GDP is falling in spite of the civil war and still ongoing financial crisis. Libya recorded a Government Debt to GDP of 7.80 percent of the country's Gross Domestic Product in 2010. Historically, from 2003 until 2010, Libya Government Debt To GDP averaged 11.5 percent reaching an all time high of 21.2 percent in December of 2003 and a record low of 5.9 percent in December of 2008 and we can say that their government debt is now at least stagnating.

Figure 19: Government Debt to GDP in Libya in percentage in 2004 – 2011



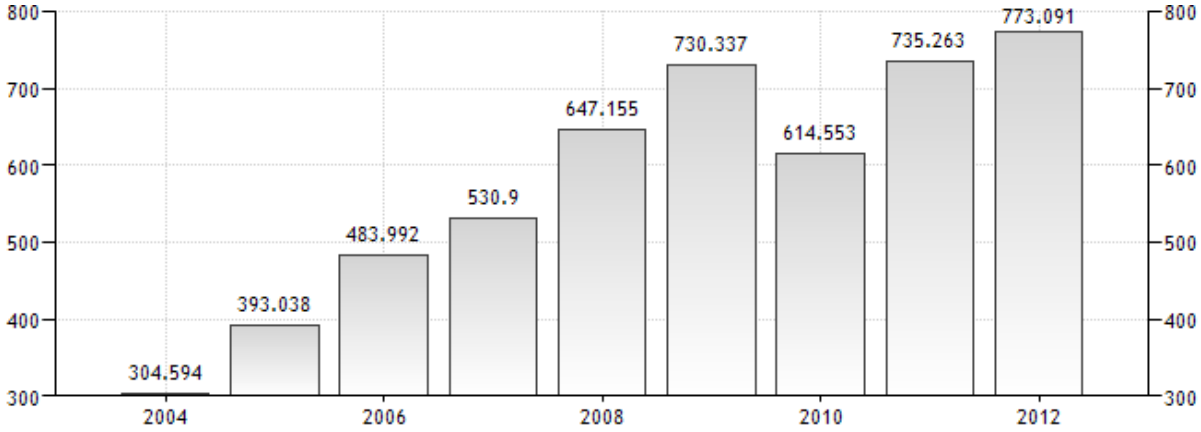
Source: The World Bank Group

8.3 The economic development of Turkey

8.3.1 Gross Domestic Product in Turkey

Turkey is considered one of the best developing countries of today world and can be an example of how to act in the time of financial crisis. Their economy was affected by the economic crisis in 2009 which is showed in the Figure 18 as a simple drop from 730.337 billion USD to 614.553 USD in 2010. But in 2011 it has risen again and it still rising even now. The GDP in Turkey was worth 773.09 billion US dollars in 2012, which is the all time highest value. The GDP value of Turkey represents 1.25 percent of the world economy. Historically, from 1968 until 2011, Turkey GDP averaged 204.9 USD Billion recording low of 15.8 USD Billion in December of 1968. When we compare 15.8 USD billion in 1968 and 773.09 USD billion we can come to conclusion that they multiplied their economic wealth 48 times.

Figure 20: Gross Domestic Product in Turkey in USD Billion in 2004 – 2012

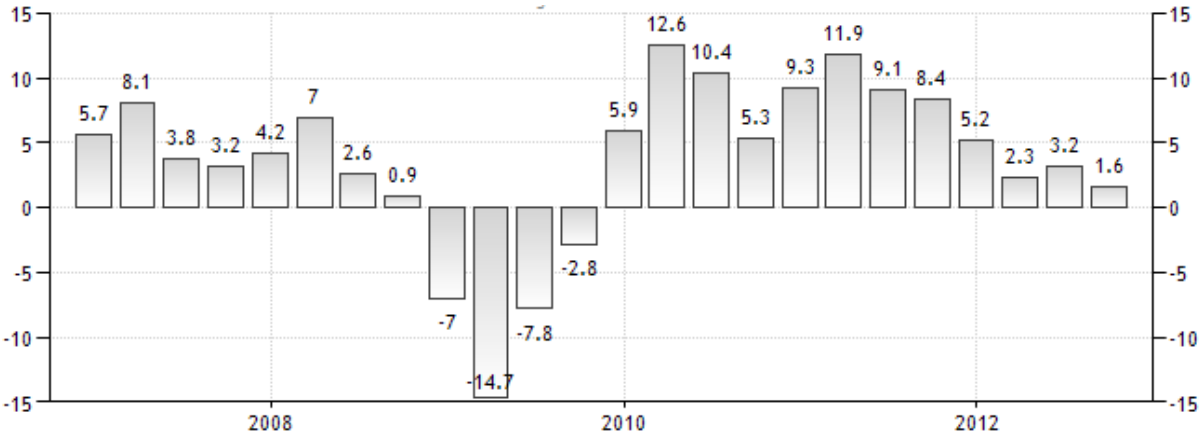


Source: The World Bank Group

8.3.2 GDP Annual Growth Rate in Turkey

The Figure 21 is showing quarters from year 2007 to the end of 2012. I have selected this era to show that Turkey GDP was dropping for only one year in 2009 and from then it is rising even more than before. GDP in Turkey expanded 1.60 percent in the third quarter of 2012 over the same quarter of the previous year. Historically, from 1999 until 2012, Turkey GDP Annual Growth Rate averaged 4.0 Percent reaching an all time high of 12.6 Percent in March of 2010 and a record low of -14.7 Percent in March of 2009. The growth of the GDP in Turkey is partly affected by expanding tourism in this nation, which is considered one of the safest Arabic countries.

Figure 21: GDP Annual Growth Rate in Turkey in percentage in 2007 – 2012

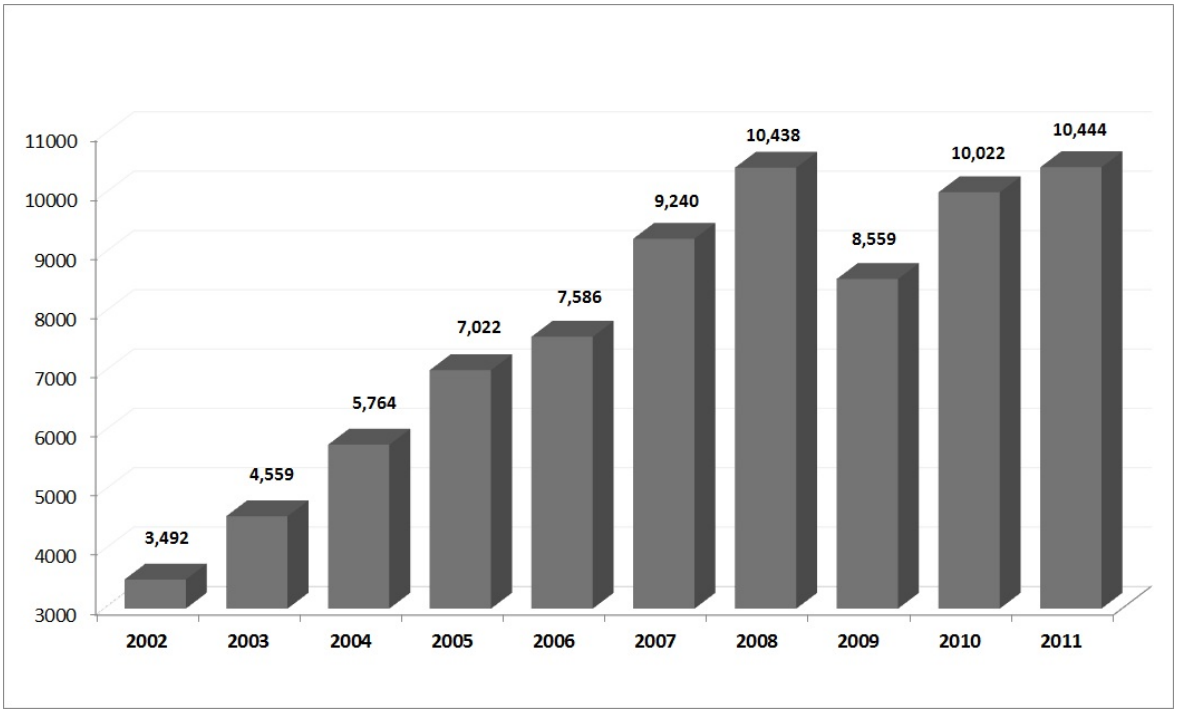


Source: The World Bank Group

8.3.3 GDP per capita in Turkey

GDP per capita in Turkey is not rising as much as the GDP itself because contrary to the European Union the population of Turkey is constantly rising with the annual growth rate of 1.36 percent. The GDP per capita in Turkey was last recorded at 10,444.64 US dollars in 2011. The GDP per Capita in Turkey is equivalent to 46 percent of the world's average. Historically, from 1960 until 2011, Turkey GDP per capita averaged 3145.8 USD reaching an all time high of 10,444.64 USD in December of 2011 and a record low of 1,556.0 USD in December of 1961. When we compare it with Libya we can say that they have almost the same value in 2011, but the difference in constant growth of GDP per capita in Turkey.

Figure 22: GDP per capita in Turkey in USD in 2004 – 2012

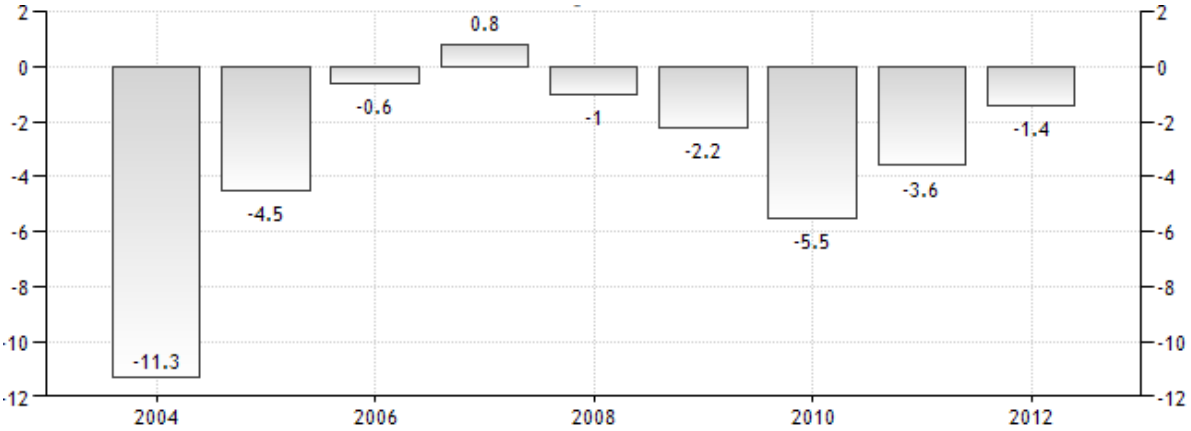


Source: The World Bank Group

8.3.4 Government Budget in Turkey

The Turkey government is doing their best to have balanced budget. The Figure 23 is showing that from 2004 to 2007 they managed to get it to surplus. Their budget the went to deficit after the financial crisis but from 2010 the deficit of government budget up to now is dropping. Turkey recorded a Government Budget deficit equal to 1.40 percent of the country's Gross Domestic Product in 2011. Historically, from 2001 until 2011, Turkey Government Budget averaged -6.8 Percent of GDP reaching an all time high of 0.8 Percent of GDP in December of 2006 and a record low of -33.0 Percent of GDP in December of 2001. According to the trend function, Turkey should have Government Budget in surplus in 2013.

Figure 23: Government Budget in Turkey in percentage of GDP in 2004 – 2012

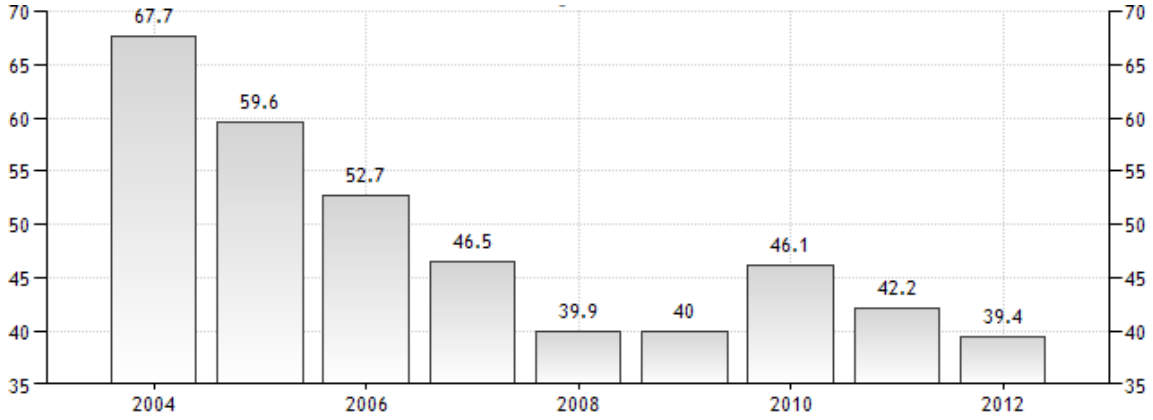


Source: The World Bank Group

8.3.5 Government Debt to GDP in Turkey

The Figure 24 represents the development of government debt to GDP in Turkey which is strongly connected to the development of Government Budget and GDP in Turkey. The higher value of GDP means the lower value of Government debt and the higher value of government budget means the higher value of Government budget. When we consider rising GDP and rising government budget we come to conclusion that is showing on the figure. Government Debt to GDP is stagnating from 2008 to 2012. Turkey recorded a government debt to GDP of 39.40 percent of the country's GDP in 2011. Historically, from 2000 until 2011, Turkey Government Debt To GDP averaged 53.1 Percent reaching an all time high of 77.9 Percent in December of 2001 and a record low of 39.4 Percent in December of 2011.

Figure 24: Government Debt to GDP in Turkey in percentage in 2004 – 2012



Source: The World Bank Group

9. The summary of analysis and suggestions

9.1 The evaluation of the hypotheses

The main objective of this study was to establish the effectiveness of fiscal policies on economic growth and the analysis of the impacts of various fiscal policy instruments on economic performance in Libya and Turkey. While achieving this goal I did the comprehensive characterization of fiscal policy in Libya and Turkey, the analysis of instruments, which both countries are using and comparison of fiscal policies between these two states.

Let's look at the benefits of the dissertation in the form of evaluation of hypotheses and in the form of the summary of the main conclusions to answer the questions defined within the specified objectives at the beginning of the dissertation and explain the examined problems.

- **The first hypothesis was confirmed:** *The economic development of Turkey and Libya is affected by the fiscal policy and the use of taxation and government spending influence the economy and thus the GDP. We can see it clearly from the expenditure method of calculating GDP and from the relationship between rising amount of government spending and concurrently rising GDP in Turkey. Bigger taxation means more money for government spending but also has a negative impact on consumers spending. So it is necessary to find right tax rate. This representation of the relationship between possible rates of taxation and the resulting levels of government revenue is solved by the Laffer curve.*

- **The second hypothesis was confirmed:** *Size and quality of fiscal adjustment determines the success of the consolidation. If the consolidation is coming from the expenditure side; mainly from cutting in transfers and wages are tend to be more associated with better growth. When there was a civil war in Libya their government applied restrictive fiscal policy and cut expenditures to prevent rising of the government debt. This will help economy to slowly revive from the shock.*

- **The third hypothesis was confirmed:** *The impact of the fiscal adjustment works either through private consumption and investment or through factor productivity. Private consumption and investment are strongly affected by the tax rate in given country. Fiscal adjustments are also influencing the final amount of GDP according to the expenditure method of calculating.*

- **The fourth hypothesis:** *Fiscal consolidation reduces high public debt. With the increased credibility of the government policies the threat of higher taxes, and risk premium on interest falls which stimulate aggregate demand. When the government is stabilized, they do not make hasty solutions and people tend to have correct inflation expectations and adjust their expenditures according to it, which will help to lower government debt and to have constant growth of GDP.*

9.2 Research findings

Benefits and recommendations for practice and further economic development of this discipline are reflected at several levels. At First, it is reflected in terms of compiling the statement context factors and indicators for examining the impact of fiscal policy. At second the dissertation provides principles and instruments of fiscal policy ties on examples from practice, the application of economic theory and principles of economic models, using current research findings, analogies and logical deduction. The work also provides the background of influence of fiscal policy on the economy of the country namely Turkey and Libya.

Studying the effectiveness of fiscal policy depends on the given period. Result obtained by taking into account the constraints of the state budget, is that regardless of the short term impact of fiscal policy long-term equilibrium is established only when the increased deficit is expansionary effect. And, in the short term deficit financing through the issuance of money has a more expansionary effect, the long-term deficit, financed partially or wholly with the bond issue, ultimately leads to a greater increase in income than if it was financed through the issuance of money.

The governments of many “successful” countries actively support those industries that were affected by the reorientation of the course and which are the sectors with the so-called essential - is primarily a branch for the primary processing of raw materials, agriculture, as well as heavy machinery. To end this, a policy of preferential taxation and government subsidies are needed. But not for the complete elimination of the fall of the level of production: for better use of resources the government needs to develop a comprehensive policy of structural, technical and technological changes, because otherwise the lag in this area among the transition economies of the developed Western countries could undermine the development in the future.

Provision of anti-inflation dynamics of income is one of the main objectives of the policy of income in countries with economies in transition. In the period of transition from socialism to capitalism, there was a sharp gap wages from labor costs, due to the exceptional high cost of living and transport, hindering mobility of labor under the laws of supply and demand. To achieve the government the problem in many countries (e.g. the Czech Republic) is retained state regulation of wages and laws were passed, which set the base nominal wage growth, adjusted by the cost of living.

The transition from a planned economy to a market economy is objectively accompanied by sharp increase in income differentiation, and to smooth out this process, the State has adopted the following measures:

- The allocation of subsidies to maintain relatively low prices for basic products, the largest cost of the most disadvantaged.
- Increased social spending, which are benefits for certain social categories.
- The use of unequal taxation: depending on the source of income may be provided for different tax rates, the calculation of the amount to be taxed, the use of the basic concepts of non-taxable minimum income.

In recent years, policy-makers in developing countries have responded to crisis of macroeconomic instability with two sets of measures: conventional stabilization policies and

policies of economic liberalization. The fiscal implications of this double agenda are set out, following three lines of enquiry. First, how can be policies kept consistent, when some liberalization measures have large adverse fiscal consequences? Second, can a fiscal deficit be reduced without damaging the provision of public services vital for growth and poverty alleviation? Finally, since lack of tax revenue is usually the binding constraint on government intervention, how can this most easily be relaxed?

The Turkey fiscal policy has evolved in the last two decades combining discipline, transparency and macroeconomic management. Since 2001 there is a rule that, in spite of several shortcomings (such as the insufficient intensity of countercyclical effects) has served to avoid pro-cyclical bias and give stability to public expenditure. As the concept of structural budget has gained credibility, there has been easier to introduce improvements and windows of discretion, for example, allowing for an unprecedented expansive reaction to the 2009 crisis in a context of fiscal sustainability.

Overall the Turkish experience shows the importance of both the introduction of structural budgeting as a principle and the value of learning in policy making, paying attention to the local structural specificities. Key challenges for the future are a greater understanding and guiding principles to deal with the macroeconomic effect of fiscal policy on economic activity, prices and the exchange rate determination. In particular, how to achieve a management of public savings that efficiently serves both to short term macroeconomic policy and to long term economic development.

Progress in fiscal policy must be matched by enhanced counter-cyclical capacity in the management of aggregate demand and the exchange rate, which in recent years have become quite unstable in response to pro-cyclical capital flows.

This research proposes the following principles to guide the formulation of fiscal policy frameworks in resource-rich developing countries:

- The fiscal policy framework should reflect country-specific characteristics like revenue dependency and volatility as well as the resource revenue horizon, which May change over time.
- The framework should ensure the sustainability of fiscal policy. Benchmarks of sustainability can be derived from a PIH (Permanent Income Hypothesis - it states that the choices made by consumers regarding their consumption patterns are largely determined by a change in permanent income, rather than change in temporary income) framework or from a broader focus on stabilizing government net wealth (in some cases at a level below today's net wealth).
- Policymakers can choose alternative fiscal anchors, either primarily addressing fiscal sustainability concerns (e.g., PIH-based rules) or focusing more on short-term demand management (e.g., a price-based or structural balance rule).
- Fiscal frameworks should be sufficiently flexible to enable the scaling-up of growth enhancing expenditure.
- In countries with large absorption constraints, the pace of scaling-up may have to be gradual, while public financial management systems are reinforced and domestic supply constraints softened.
- The volatility and uncertainty of resource revenue is critical for the design of fiscal frameworks and having sufficient precautionary fiscal buffers is critical. Technically, a strong revenue forecasting framework needs to be developed and spending plans framed in a medium-term perspective.
- The credibility and transparency of the fiscal policy framework can be supported by a well-designed resource fund, but the latter cannot be a substitute for an appropriate policy framework nor a panacea that obviates the need to strengthen overall fiscal management capacity.

Country characteristics can also change over time, requiring a reassessment of the appropriateness of the fiscal framework and associated anchors and targets. Ultimately the political process and societal preferences will determine how these principles are applied, while the success for implementation of a fiscal framework will hinge on the political commitment.

9.3 Research findings about mineral-dependent developing countries

There was, until the recent economic crisis, an expectation fuelled by the last mineral boom that a primary commodity export–led growth strategy could also allow for transformative social policy. However, there have been many disappointments with mineral export–led strategies and, more recently; there has been an increasing concern about the macroeconomic, governance and peace effects induced by the expansion of the mineral industry.

The cross-section approach used in this dissertation to analyze 74 selected mineral-dependent developing countries has shown that the evidence is not conclusive with regard to a generalized pattern of linkages between mineral wealth, state revenue and social welfare. In order to respond to the initial concerns about how mineral wealth can contribute in enhancing social welfare in MDCs and the extent to which mineral expansion undermines the chances of social development, the relationship between state revenue and social policy needs to be addressed in an integrative framework that includes both the macroeconomic and the governance dimensions of a mineral-led development strategy. This research aims to contribute to this.

In an ideal world, specific data about mineral production, companies' profits, mineral revenue, mineral tax revenue and public expenditure of that revenue would be available for researchers and policy makers to clearly assess the real contribution of mineral sectors to development.

Unfortunately, reality is different and therefore any kind of statistics-based study should be viewed with caution. But, more important, the lack of data in the extractive industries (where colossal amounts of financial resources flow) is indicative of the weak basis on which decisions about allocation of resources are made and mechanisms for revenue mobilization are designed.

Furthermore, claims about the perverse role of mineral revenue in fuelling bribes, conflicts and civil war constitute an urgent call for increasing transparency in the industry, a call that is also an opportunity for further research and policy advice in the sector.

Given that the concern about the linkages between mineral development and welfare is relatively new, social policy is a fruitful domain where mineral wealth can make a contribution if the mechanisms that facilitate informed and socially sound decisions are in place. Along that line, country and comparative case studies on the effects of mineral production and expansion on welfare regimes can be insightful for social policy design. Enquiry about the effects of mineral expansion on the emergence and development of domestic markets (particularly labour and financial markets) can also contribute to social policy finance and delivery. Finally, if social policy can certainly play an instrumental role and, by doing so, produce social transformation, there is much to explore regarding the structural and institutional conditions in which the connection between mineral production and expansion and social policy can lead development.

Development literature has not been able to come up with a clear understanding of what constitutes a mineral-rich country. The consensus has been to take some measure of economic dependence on the mineral commodities in question and to assess the level of dependence through the share of mineral exports in either total exports or in gross domestic product (GDP).Even within that consensus, contributors diverge about the boundaries, without much explanation about how the thresholds are established. In practice, a baseline point of 10 per cent share of the mineral sector in total exports has been agreed upon.

In order to review what has been said about MDCs and to provide a statistical analysis of the relationship between state revenue and social policies, this paper adopts the 10 per cent baseline point and establishes the following ranking to classify mineral-dependent countries—high dependence: 40 per cent or more of share of the mineral sector in total exports; medium dependence: 20–39 per cent; low dependence: 10–19 per cent.4 It also provides insights on additional criteria that need to be incorporated in order to understand more accurately the implications of identifying a country as “mineral-rich” as opposed to “mineral-dependent”.

From a social policy perspective, the distinction between a mineral-dependent and a mineral rich developing country is important. From a political economy perspective, the paper asks who benefits from mineral wealth and how mineral resources are allocated and distributed. As it has been documented in the “resource curse” literature, mineral dependence can be harmful,

for instance, when it finances corrupt or authoritarian governments without long-term strategies for economic development, and without redistributing revenues to the population in general and to mining communities in particular. The terms mineral abundance or mineral wealth, on the other hand, suggest that mining can be a source of development—mineral wealth is seen as a positive "endowment" (ICMM 2006). It can therefore produce the financial basis for development, for instance, creating fiscal space to develop a welfare state, as well as financing structural economic and social change. Therefore, the expansion of mineral sectors is planned and managed in a way that enhances the potential macroeconomic benefits and offsets the real or potential damage to host economies, the environment and societies.

This broader perspective, which simultaneously explores the macroeconomic, institutional and sociopolitical effects of mineral development, suggests that the relationship between social policy and mineral wealth needs to be framed in a holistic approach, which takes into account all impacts that mineral wealth produces in Libya.

In conclusion, in developing countries, tax policy is often the art of the possible rather than the pursuit of the optimal. It is therefore not surprising that economic theory and especially optimal taxation literature have had relatively little impact on the design of tax systems in these countries. In discussing tax policy issues facing many developing countries today.

10. Conclusion

Dissertation analyzed the effects of fiscal policy on the economy of Turkey and Libya and created a framework basis for further scientific research in examining the impact of fiscal policy not only in these countries but it can be used in general to define the influence of economic linkages and factors influencing instruments of fiscal policy.

The theoretical part of the dissertation offered connection between literature review and theoretical analysis, which represents not only the overview of existing literature, but outlines the conclusions of economic principles applied on the studied problematic and uses a literature basis for arguments for defining partial conclusions and assumptions. Furthermore it demonstrates the results of the exploration and empirical evidence, specifically by their involvement and experience in the examined issues. Individual chapters provide partial results and conclusions, thus creating a basis for further research, argumentation and support for inferred and subsequently spoken conclusions. As a whole, the work creates argumentative background and set of principles and factors examining the impact of fiscal policy in relation to the results of the sub-markets and the economies of both countries Libya and turkey.

Fiscal policy is a necessary element of state regulation. The main instruments of fiscal policy are the manipulation of revenue and expenditure of the state. By monitoring the tax and spend, the amount of money in circulation, the government makes adjustments to business cycle fluctuations, income distribution, production and investment. Depending on the goals and objectives of the state is forced to combine in the financial system and the various sources of income and spending priorities, and ways of combining them are very diverse. The research describes the main principles of the theory of Keynes, with which the author builds the concept of budgetary instruments, depending on the goals of the state.

Overall the Turkish experience shows the importance of the introduction of structural budgeting as a principle and the value of learning in policy making, paying attention to the local structural specificities. Key challenges for the future are a greater understanding and guiding principles to deal with the macroeconomic effect of fiscal policy on economic activity, prices and

the exchange rate determination. In particular, how to achieve a management of public savings that efficiently serves both to short term macroeconomic policy and to long term economic development.

At the end of the dissertation I can say that I proved that the economic development of Turkey and Libya is affected by the fiscal policy and the use of taxation and government spending influence the economy and thus the GDP. Also size and quality of fiscal adjustment determines the success of the consolidation. If the consolidation is coming from the expenditure side and the impact of the fiscal adjustment works either through private consumption and investment or through factor productivity. This fiscal consolidation reduces high public debt. With the increased credibility of the government policies the threat of higher taxes, and risk premium on interest falls which stimulate aggregate demand.

ABSTRACT

The role of fiscal policy the national government's planned, discretionary balance between its outlays and recurrent revenues (broadly, spending and taxes) has long been a subject of debate and controversy in modern times. During the 20th century, for a time at least, a 'Keynesian' views of the role of fiscal policy supplanted the more traditional conservative view. The latter view took as its benchmark a rather thorough-going commitment to the maintenance of a balanced budget aggregate spending being restricted to the size of aggregate recurrent revenue with a view to the objective of sound management of the government sector's 'balance sheet.

The state's calculated intervention in the economy is an issue accepted by researchers. To fulfill the overall goals of the economy and to achieve its full potential, the state has to involve itself in the economics of production and distribution throughout the nation. Within this framework, the state national budget emerges as an essential method in the fiscal planning's implementation process. Thus, the economic policies' goals should comply with the goals of the economic plans.

The achievement of macroeconomic goals namely full employment, stability of price level, high and sustainable economic growth, and external balance, from time immemorial, has been a policy priority of every economy whether developed or developing given the susceptibility of macroeconomic variables to fluctuations in the economy.. The realization of these goals undoubtedly is not automatic but requires policy guidance. This policy guidance represents the objective of economic policy. Fiscal and monetary policy instruments are the main instruments of achieving the macroeconomic targets. The basic fiscal policy instruments are public expenditure and tax while the monetary police instruments include the devices of reserve requirements, discount rates and open market policy. The main focus of this paper, therefore, is to examine the effects of fiscal policy on economic growth in Turkey and Libya. The specific objectives, however, include:

- To offer theoretical and empirical insights into the link between fiscal policy and economic growth.
- To analyze the structure and trends in fiscal policy in these countries.

- To offer policy recommendations based on the empirical findings of the study.

The Turkey fiscal policy has evolved in the last two decades combining discipline, transparency and macroeconomic management. Since 2001 there is a rule that, in spite of several shortcomings (such as the insufficient intensity of countercyclical effects) has served to avoid pro-cyclical bias and give stability to public expenditure. As the concept of structural budget has gained credibility, there has been easier to introduce improvements and windows of discretion, for example, allowing for an unprecedented expansive reaction to the 2009 crisis in a context of fiscal sustainability.

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- The volatility and uncertainty of resource revenue is critical for the design of fiscal frameworks and having sufficient precautionary fiscal buffers is critical.

Technically, a strong revenue forecasting framework needs to be developed and spending plans framed in a medium-term perspective.

- The credibility and transparency of the fiscal policy framework can be supported by a well-designed resource fund, but the latter cannot be a substitute for an appropriate policy framework nor a panacea that obviates the need to strengthen overall fiscal management capacity.

Taxation is one of the most important and easy sources of revenue to any government, as the government possesses inherent power to impose taxes and levies. Libya tax system has been weak due largely to inadequate data of the tax base and heavy reliance on oil revenue. With the volatility in oil prices and excruciating impacts of the recent global financial crisis, taxation deserves more attention now than ever before in Libya.

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Appendixes

Appendix 1: Main economic indicators in Libya

Main economic indicators	2005	2006	2007	2008	2009	2010
Real sector						
Real GDP growth (% change)	9.9	5.9	6.0	3.8	2.1	5.4
GDP (EUR, billion)	35.4	45.0	53.2	61.1	45.4	55.0
GDP (USD, billion)	44.0	56.5	71.7	89.9	59.9	73.2
GDP per capita (EUR)	5971	7441	8479	9711	7068	8403
GDP per capita (USD)	7429	9343	11621	14283	9330	11176
GDP (Libyan dinars, billion)	59.9	72.3	87.6	114	78.2	95.6
Inflation (average, %)	2.9	1.4	6.2	10.4	5	4.5
Social indicators						
Unemployment (off. registered, average, %)			17.0	20.7		
Life expectancy at birth (years)	73.4	73.6				
Adult literacy (% aged 15 and older)	84.2	86.2				
Population (annual growth rate, %)	2.0	2.1	2.0	2.0	2.0	2.0
Human development index	0.818	0.840				
Population (in millions)	5923	6047	6170	6294	6420	6550
Fiscal sector						
General government revenues (% GDP)	62.9	62.5	60.8	63.9	66.5	64.9
of which: oil revenues (% GDP)	58.4	57.6	54.5	57.3	53.2	53.0
General government expenditure (% GDP)	33.5	31.0	35.3	39.3	55.9	49.1
General government balance, excl. grants (% GDP)	29.4	31.4	25.5	24.6	10.6	15.8
General government non-oil balance (% GDP)	-29.0	-26.2	-29.0	-32.7	-42.6	-37.2
General government debt (% GDP)	1.0	0.9	0	0	0	
Monetary sector						
Broad Money (M2, % change)	10.6	15.9	40.1	47.8	14.0	18.0
Credit to the economy (% change)	7.7	11.6	14.5	12.5	13.7	15.6
Credit to the private sector economy (% change)	2.8	3.6	11.5	46.5	18.0	20.0
External sector						
Current account balance (% GDP)	38.9	44.6	40.6	40.7	16.8	23.5
Trade balance (% GDP)	45.9	46.2	40.8	44.8	24.2	30.8
Exports of hydrocarbons (% GDP	69.2	67.6	63.9	67.5	60.4	62.8
FDI (net, % GDP)	3.3	2.6	1.1	-2.0	2.1	2.0

Financial sector						
Lending rate (average, %)	6.1	6.3	6.0	6.0	6.2	6.5
Exchange rate (annual average LD per 1 EUR)	1.68	1.61	1.67	1.87	1.73	
Exchange rate (annual average LD per 1 USD)	1.35	1.29	1.22	1.25	1.30	
Real effective exchange rate (%, + is apprec.)	-1.8	-0.6	-0.3	6.0	8.2	

Sources: IMF, UNDP, UN population division, EIU

Appendix 2: Libya - Sustainable Overall Public Expenditure Envelop under Different Oil Price Scenarios in 2007 - 2014(in billions of LYD)

	2007	2008	2009	2010	2011	2012	2013	2014
Estimated sustainable nonhydrocarbon primary deficit (Real)								
Low ($40 pb)	19.9	20.2	20.6	20.9	21.3	21.7	22.0	22.4
Per-capita (in '000 US dollars)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Derived sustainable public expenditure								
Low ($40 pb)	23.9	28.0	33.1	35.6	38.1	40.6	43.3	46.2
Medium ($60 pb) 2/	31.0	36.0	41.7	44.9	48.0	51.1	54.4	58.0
High ($80 pb)	38.1	44.1	50.4	54.3	57.9	61.6	65.5	69.7
High ($100 pb)	45.2	52.1	59.1	63.6	67.8	72.1	76.6	81.5
Nonhydrocarbon primary revenue	4.0	5.5	8.8	9.6	10.4	11.3	12.3	13.4
Public expenditures	30.9	44.8	43.7	47.0	50.6	54.7	59.2	64.2
Needed adjustment in public expenditure								
Low($40 pb)	7.0	16.9	10.6	11.3	12.6	14.1	15.9	18.0
Medium ($60 pb) 2/	-0.1	8.8	1.9	2.0	2.6	3.6	4.8	6.2
High ($80 pb)	-7.2	0.7	-6.8	-7.3	-7.3	-6.9	-6.4	-5.5
High ($100 pb)	-45.2	-52.1	-59.1	-63.6	-67.8	-72.1	-76.6	-81

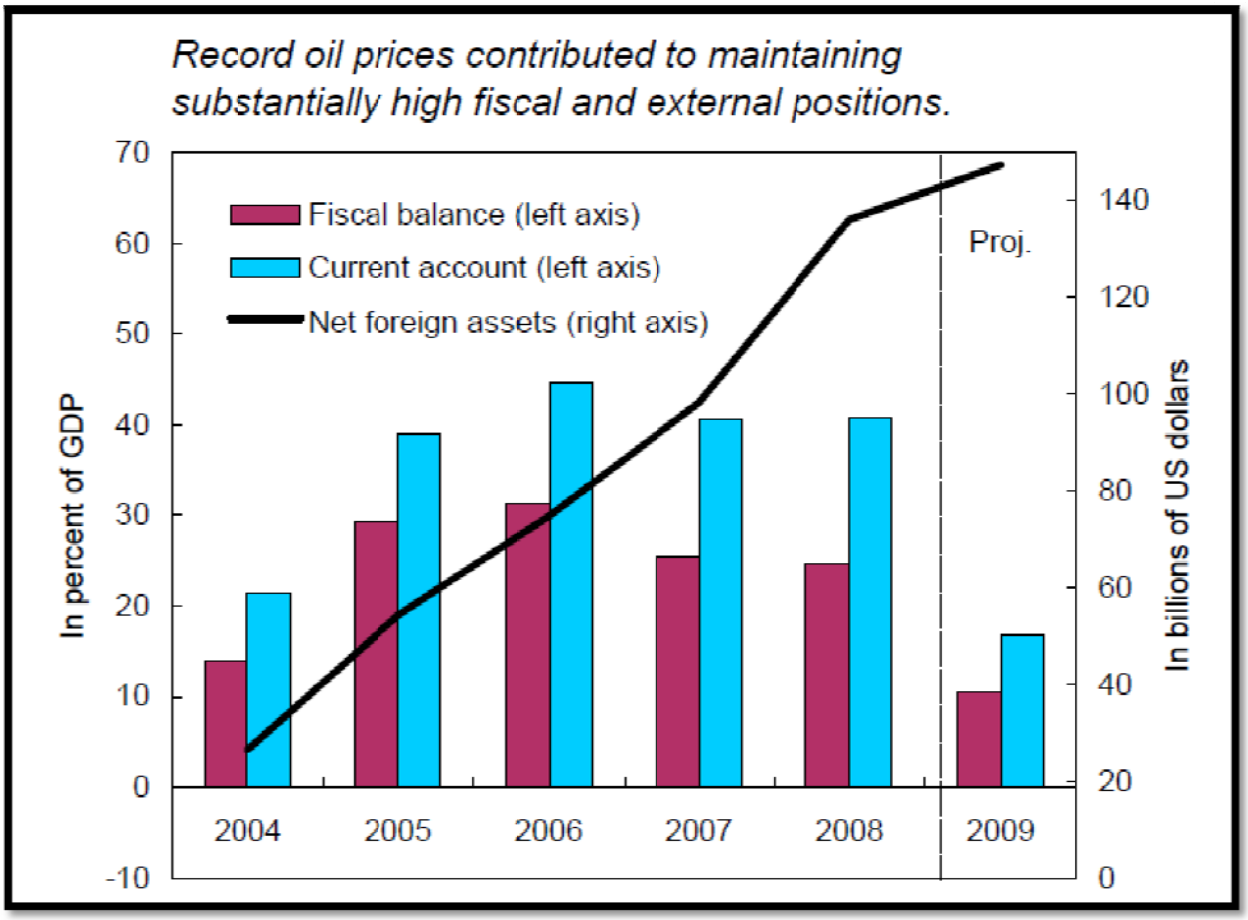
Source: Libyan authorities: and Fund staff estimates and projections.

Appendix 3: Basic Macroeconomic Indicators of Turkey in 2006 - 2010

Key Indicators: Turkey 2006-2010	2006	2007	2008	2009	2010
Population (mid-year, million [mln])	69.4	70.2	71.1	72.1	73.0
Average exchange rate (Turkish Lira, TL / USD)	1.43	1.30	1.29	1.55	1.50
Inflation rate (CPI average,%)	9.6	8.8	10.4	6.3	8.6
GDP at Current Prices (local cur. Billion, trillion)	758	843	951	953	1,105
GDP at Current Prices (USD bln)	526	649	742	617	736
GDP / capita (in cur. Prices; USD)	7,583	9,234	10440	8,578	10079
Real GDP growth (%)	6.9	4.7	0.7	-4.7	8.9
Unemployment rate (ILO definition; eop,%)	10.4	10.4	11.1	14.2	12.1
Industrial output growth (%)	8.3	5.8	0.3	-6.9	12.9
Agricultural output growth (%)	1.4	-6.7	4.3	3.6	1.6
Services output growth (%)	7.3	6.0	0.4	-4.7	7.8
Direct foreign investment (USD bln)	20.2	22.0	19.5	8.4	9.1
Central Gov. Budget balance / GDP (%)	-0.6	-1.6	-1.8	-5.5	-3.7
Gross government debt (USD bln)	260.3	305.2	269.9	309.2	321.3
Gross government debt / GDP (%)	48.2	42.2	42.9	48.9	45.0
EU Defined General Government Nominal Debt / GDP (%)	46.1	39.4	39.5	45.5	42.3
Export (fob, USD bln)	85.5	107.3	132.0	102.1	114
Import (fob, USD bln)	139.6	170.0	201.9	140.9	185.5
Trade balance (Exp. fob. - Imp.fob.; Bln USD)	-54.0	-62.8	-69.9	-38.8	-71.5
Current account balance (USD bln)	-32.2	-38.4	-41.9	-14.0	-48.5
Current account / GDP (%)	-6.1	-5.9	-5.7	-2.3	-6.6
Foreign reserves (excl. gold; eop; bln USD)	58.3	71.6	69.7	70.7	80.7

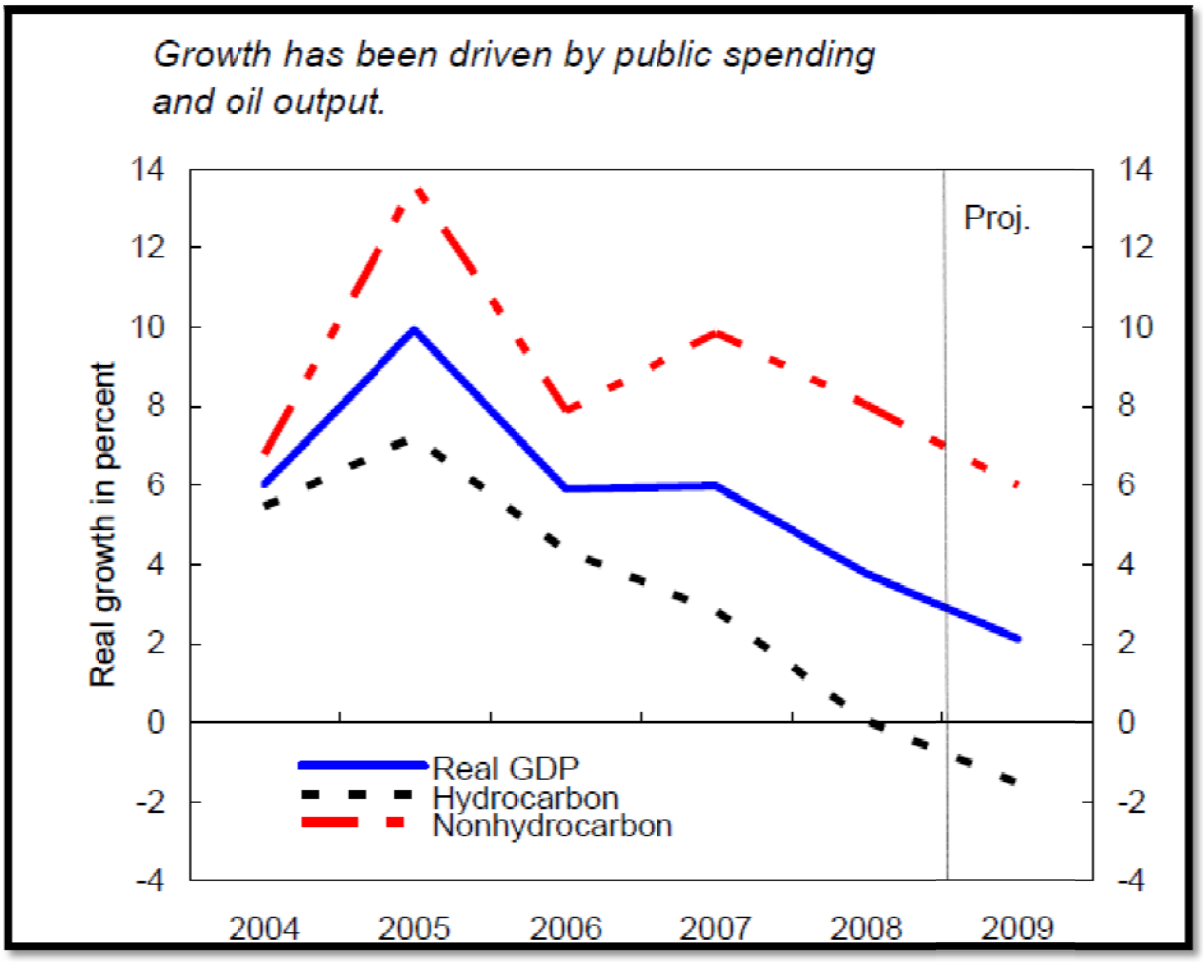
Sources: (1) The Central Bank of Turkey (2) The Turkish Statistical Institute

Appendix 4: Record oil prices contributed to maintaining substantially high fiscal and external positions



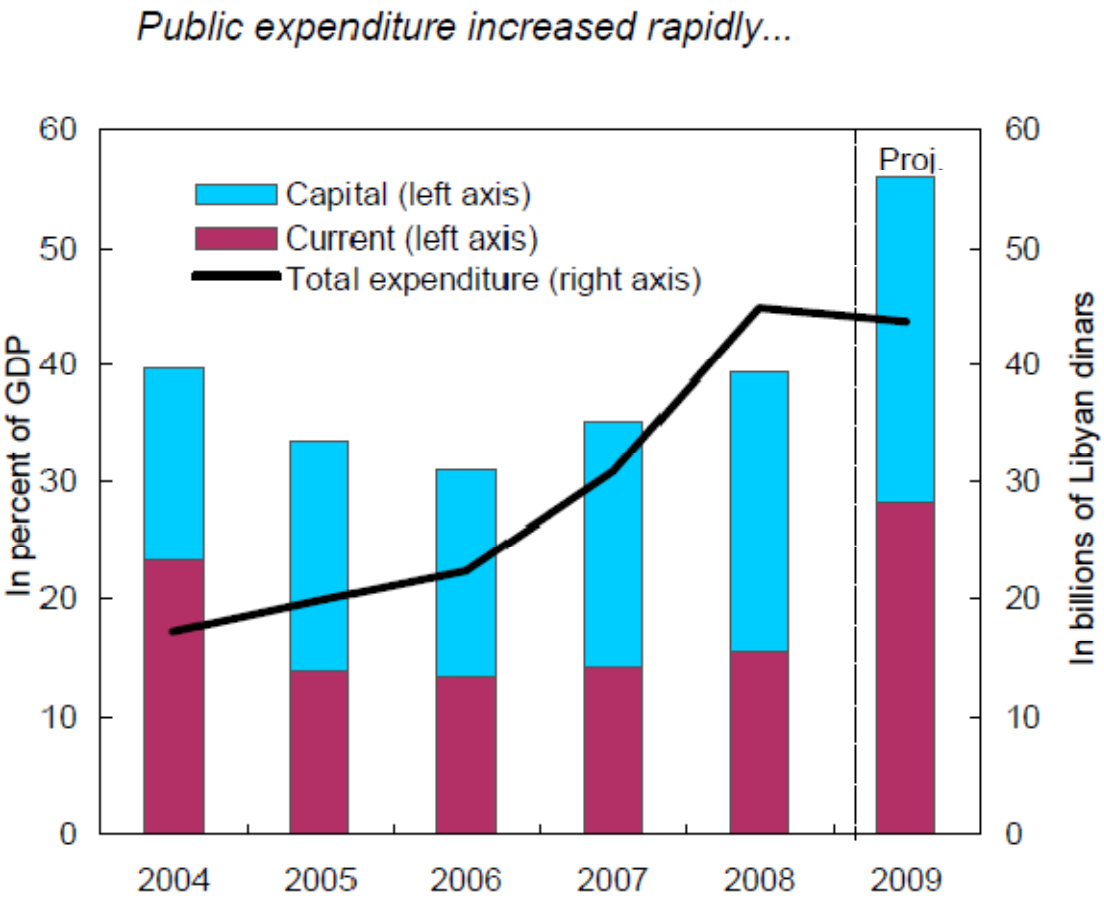
Source: IMF Country Report, 2009

Appendix 5: Growth has been driven by public spending and oil output



Source: IMF Country Report, 2009

Appendix 6: Libyan public expenditures



Source: IMF Country Report, 2009