The Impact of Financial Discipline on Monetary and Fiscal Policies (Iraq asa Case Study)

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The current research aims to study several knowledge bases, to then draw a hypothesis about financial discipline. Financial discipline, monetary policy and financial policy are surveyed, in addition to showing the impact of financial discipline on both monetary and financial policies in a manner that achieves economic goals as well as the pursuit of economic growth and development in general. One hypothesis is: That financial discipline can affect both the monetary and financial policy of the state, in a way that helps achieve economic development. To achieve the goals of the research and test its hypothesis, the research relied on descriptive analysis to track and investigate its material. Further, a statistical approach was applied using time series analysis (1996-2015), to derive results and indicate the impact of financial discipline on monetary and fiscal policies. The most important conclusion was that under financial discipline, total spending does not exceed its limits set in the state's general budget. Further, the financial deficit does not exceed a specific percentage of the gross domestic product. Financial spending thus remains within the capabilities and resources available to the state. The research also concluded that financial discipline can affect monetary and financial policies in a form that achieves economic goals.

Key words: *Monetary Policy, Fiscal policy, Iraq, financial discipline*

Introduction

Public spending is an important tool in the context of economic policy. It is needed to achieve growth, stability and economic reform, regardless of the direction of the system; its philosophy and the nature of ownership therein. Its importance has generally escalated with the steady growth in government expenditures and their ratio to gross domestic product (GDP), in various developed and developing countries. From this realisation, the idea of the current research was launched. The researcher sought the nature of public expenditures in Iraq, its trends, and the policy reasons for it. In this context, financial discipline appears a useful methodology. It requires that total spending not exceed prescriptions in the state's general budget, and that the financial deficit does not exceed a specific percentage of the GDP. Financial spending will then be within the capabilities and resources available to the state during a specific period. Therefore the issue requires proper analysis, and linking of the disparate requirements of scientific management and the state's general budget, in a way that leads to not exceeding the specified allocations. Thus, there is a need to investigate the impact of financial discipline on both monetary and financial policies, in a manner that achieves economic goals and strives towards economic growth and development in general.

Research Problem

The problem is limited to the fact that there are weaknesses in Iraqi spending policy. Further, the policy that prevailed during the last period cannot be continued. It led to negative effects that greatly limit desired positive results in terms of advancing development, achieving growth and economic stability, and reducing high unemployment which the country continues to suffers. Therefore appropriate methods must be followed, the most important of which is fiscal discipline. An indication of its impact on both monetary policy and the state's fiscal policy is needed. Therefore the research problem can be formulated by the following question: (Can financial discipline affect my policy? Financial and monetary form that helps to achieve economic development?

Research Objectives

The current research aims to study the knowledge bases of financial discipline, monetary policy and financial policy, in addition to showing the impact of financial discipline on both monetary and financial policies, in a manner that achieves economic goals as well as the pursuit of economic growth and development in general.

The Importance of Research

The importance of the research stems from the importance of financial discipline. Further, explaining its impact on monetary and financial policies is also important. Financial discipline is an important tool for the state to correct its economic conditions. Therefore, stopping weaknesses of economic policy in this field, and studying financial discipline in-depth to know the reasons for its weakness and address these causes, is very important. This research can find effective ways by which decision-makers can improve the economic situation.

Research Hypothesis

The research is based on a basic hypothesis that: (Financial discipline can affect both the monetary policy and the state's fiscal policy in a way that helps in achieving economic development).

Research Method and Sample

The research relied on the descriptive analytical approach, in tracking and investigating its material. It also relied on the statistical approach based on time series analysis (1996-2015), and conducting some statistical analysis of it, to derive results and indicate the impact of financial discipline on monetary and fiscal policies.

The Second Topic: The Theoretical Framework for the Research

The Concept and Importance of Financial Discipline

Important economic and financial repercussions occurred at the end of the last century. This led to a development and diversity of views on rationalising public expenditures while emphasising the concept of financial discipline. Specialised efficiency, and improving and developing operational efficiency are also important. Many countries, especially developing ones, suffered financial imbalances. The inability to transfer resources between different uses, to achieve the strategic priorities of economic units, ultimately led to lower productivity in the public sector compared to the private sector (Hernandez, et al., 2012:18).

Subsequently, the concept of financial discipline appeared. It indicates that total expenditure should not exceed the quantities prescribed for it in the general budget of the state. Further, the financial deficit should not exceed a specific percentage of GDP. In this manner financial spending will remain within the capabilities and resources available to the state during a specific period. Therefore, it is necessary to properly link the requirements of scientific

management to the state's general budget, such that it does not exceed specific allocations during that period (Wallenberg, 2004: 116-117).

Accordingly, financial discipline indicates the specialised competence to manage public expenditures, in a manner consistent with the strategic plan of the state. It also allocates public revenues according to established priorities, and the efficiency and effectiveness of government programs with the highest priority and programs and projects that generate the highest return, in comparison with other programs and projects provided by bodies and administrative units (Hanson, 2009:76).

Therefore, administrative bodies and units must provide a specific level of public services in the light of specific allocations. This will rationalise spending while maintaining the quality of the services provided. Public expenditure is referred to as an amount of money drawn from the state treasury by its various departments, bodies and ministries, to meet the general needs of society. The rationalisation of public spending means the optimal use and appropriate guidance of expenditures, towards the best alternatives that maximise the benefit to the person who is spending. It also reduces loss and sacrifice of the opportunity before people (individuals, families, organizations or governments) and issues related to the nose S public Further, it rationalises to the extent of government bodies following the methods of majoritarianism and rationality in the distribution of its programs, to achieve the best uses of resources and the most cost-effective, efficient, and effective satisfaction of public needs (Canzone, et al., 2014: 1224).

Financial discipline includes a variety of controls over public expenditures; tightening control over them, minimising waste, avoiding unnecessary expenditure, increasing production efficiency, trying to maximise the available economic and human resources, and considering the following economic controls when approving public expenditure in the state's budget: (Milford & Lewis, 2011:15).

1. Public Interest Achievement Officer: This requires that the goal of alimony is to perform the functions assigned to the state; defence, security, education, health and transportation. Such funds are to provide for society's security (internal and external), public administration, ensure a minimum standard of living and other basic and subsidiary state functions.
2. Efficiency Officer: To achieve the public interest at the lowest price, so public spending is not wasted, nor monies be placed other than in their important places.
3. Public Spending Commitment Officer: To require that expenditure occur on proper priority. This principle must be respected and not departed from. Otherwise funds will go to less important areas and projects, and more important areas and projects be deprived of them, which leads to public spending not achieving its desired positive effects.

4. Determining, exactly, the amount of the required alimony and its proper timing: This control is related to two important issues. First, that the alimony should be within its optimal position, i.e. the necessity to investigate that the alimony is standard or close to it, and that spending is timely.

5. Under fiscal discipline, the size of public expenditures is optimised by two conditions: First, social marginal benefits must be equal in all areas of public spending; i.e. the state needs to spend in various fields until the marginal benefits are equal among them. Second, spending should achieve a benefit equal to at least what it sacrificed in production The private sector as a result of the state's activity (Calmer, 2013: 336).

As for financial discipline, it is one of the most important methods for rationalising public expenditures, while maintaining the quality of services provided to members of society. Therefore financial discipline can achieve a set of hypocrites, which can be clarified through the following: (Milford & Lewis, 2011:15-16).

1. Satisfy the general needs of all members of society.
2. Preserve public resources from extravagance, and assist in implementing the country's strategic plans.
3. Get rid of the unlikely budget deficit, and the negative effect that the country can be burdened by many external loans and their consequences.
4. Help to invest the resources and capabilities available to the state, to effectively and efficiently help achieving both short and long-term goals.

Accordingly, financial discipline refers to controlling public expenditures, tightening control over them, minimising waste, avoiding unnecessary expenditures, increasing production efficiency, and trying to make the most of the available economic and human resources, to effectively and efficiently implement the country's strategic plans and invest in resources and capabilities available to the state, thereby achieving short and long-term goals (Stemson, 2005:33).

Concept, Importance and Tools of Monetary and Financial Policies

Monetary policy is the set of procedures and arrangements by which the state manages cash and credit, in organising the general liquidity of the economy. Monetary policy is the most relevant financing and investment policy. Therefore, providing the necessary cash to finance different economic sectors, expanding markets and activity, is a basic condition for effective economic development. Often in developing countries, domestic savings surpluses are insufficient for implementing this policy, so the state resorts to external borrowing or issuing money, to finance these broad sectors of the economy (Ferbam, et. al., 2009:48).

Issuing money is the easiest way to finance state expenditure. Therefore the state resorts to monetary policy despite its seriousness and negative effects. Many countries have followed this harmful monetary policy, which could have been replaced by a policy beneficial to the nation and its citizens, instead of issuing a quantity of money to cover its projects. One can offer a part of the project for the private sector to participate in, rather than accumulating funds with the private sector, smuggling them out over borders, or establishing projects with these funds in rich countries. Instead, the governments of developing countries should partner with the private sector and thereby achieve many benefits, including the following: (Alexia & Parrot, 2009: 55).

1- Running idle funds instead of hoarding them, and keeping money within its borders instead of smuggling it abroad.
2- Making money start necessary projects for the nation, instead of investing it in the rich countries to increase their wealth and tyranny, thereby achieving economic prosperity for the nation by lowering prices, instead of increasing them if they use monetary policy which leads to inflation.

The previous procedures are direct forms of monetary policy. However, there are indirect forms of monetary policy, represented in the tools used to impede or stimulate the economy and related to the regulation of financial markets, and both the direct and indirect financing effects of monetary policy have a different role in funding and investment in underdeveloped countries (Guiscard, et.al., 2015:449).

Monetary issues are among the most important policies and procedures that countries currently produce, to cover the gap between revenues and expenditures. Given its importance, its relationship to financial and monetary policy will be explicated in some detail, as will its effects on the level of economic activity accompanying development, clarifying legal opinion in such a procedure (Aisne & Haunter, 2016:4).

The money supply is a translation of the link between the monetary authority and the financing apparatus in the community. Therefore issuing money should only be for actual economic reasons. The excess of the money supply to the supply of real goods and services in the community should not lead to damage, as represented by money bearing only a low purchasing power, which leads to gains for some but not others; the money supply should be controlled only by the central bank as the supervisor of cash management and regulation of financial markets (Hanson, 2009:76).

Monetary policy plays an important role in financing operations within society. It is used to control cash flow. In terms of its quantity, speed, and direction, inflationary financing is one of the most used influences upon monetary policy (Deploy, et al., 2010: 12).

Financial policy has been by defined (Wong, et al., 2013:52). It as an analytical study of the financial activity of the public sector and its effects in relation to the various sectors of the national economy, in a manner that suits the needs of the economy. It is embodied through a quantitative determination of public spending and revenue, along with the qualitative adaptation of the various aspects of this spending and the sources of these revenues. Its aim is economic policy, advancing economic development and stability in the economy as a whole, achieving social justice, and providing equal opportunities for citizens by bringing people together within society, thereby achieving justice in the distribution of incomes and wealth.

Thus, financial policy represents the decisions and behaviours that the state controls regarding spending and taxes, both of which constitute the work programs that the executive will implement using its available financial resources, to influence economic activity and address imbalances through the following tools: taxes, government spending, public debt, economic subsidies (Stemson, 2005:33).

Fiscal policy may become one of the most important means of economic balance, through its impact on the national economic structure, using its various tools to redistribute national income and reallocate available economic resources, by directing investments towards the desired sectors to improve rates of economic growth (Guiscard, et. al., 2015:552).
The deficit is increasing in the general budget of most countries. Consequently, the trend towards interest in financial policy is currently increasing. It is one of the strongest and most effective economic policies, through its improving economic indicators by reducing income differences, increasing the employment rate and increasing individuals' purchasing power. *Society and* The growth of gross national product, (GNP) and thus economic growth, also aims to promote social justice and raise the level, efficiency and effectiveness of productivity, and achieve stability and economic growth in the state (Krupp & Plow, 2006:3).

The state's interference in economic activity is embodied by public expenditures that have a monetary nature. Its spending appears in the form of cash flows. This eliminates all traditional uses previously used by the state such as in-kind means and providing moral benefits, where it was provided to individuals who perform these services. Things in kind or moral, include a grant of part of the state's property titles and decorations, with the recipient obtaining its needs from public services that it provides to society. However, contemporary thought has defined an expansion in the use of money, as in-kind methods have been replaced by a monetary method of payment in all government transactions, to satisfy community needs (Alexia & Parrot, 2009:55).

The Importance of Financial Discipline in Light of the Monetary and Financial Policies

Financial discipline requires that the state's total spending not exceed the quantities prescribed in the public budget. Likewise, the fiscal deficit does not exceed a specific and specific percentage of GDP. Financial spending is thus within the capabilities and resources available to the state during a specific period. Therefore, it is necessary to link the requirements of scientific management to the state's general budget, although not exceeding the allocations specified during that period (Wallenberg, 2004: 116-117). Thus, there is a relationship between fiscal discipline and both monetary and fiscal policy, and fiscal discipline can affect the two policies, monetary and financial, by influencing their tools as illustrated by the following: (Krupp & Plow, 2006: 3-4).

1. Gross National Product (GNP): The increase in government spending, investments, and money supply will lead to an increase in the country's GNP.
2. Investment: A GNP increase leads to an increase in investment, while a rise in both the interest rate and the exchange rate leads to a decrease in investments.
3. Consumption: Increasing both workers' wages and money supply increases consumption, while higher taxes lead to lower consumption.
4. Demand for labour: Increasing the GNP, investments and the rate of inflation increases the demand for labour, while increasing the wage of the worker leads to a decrease in demand for it.
5. A worker's wage: Increasing both the worker's productivity and the rate of inflation increases the worker's wages, while an increase in the unemployment rate leads to a decrease in the worker's wages.
6. Worker wages: Increasing both GNP and investment increases the value of wages, while an increase in the level of technology can increase or decrease the value of wages.
7. Taxes: Increasing both the GNP and workers' wages, increases taxes.
8. Inflation: Increasing workers' wages increases the rate of inflation, while an increase in the money supply, unemployment rate, and interest rate decreases the inflation rate.
9. Money demand: a GNP increase will increase the demand for money, while a higher interest rate leads to a decrease in the demand for money.
10. Money supply: a GNP increase leads to an increase in the money supply, while a higher interest rate leads to a decrease in the money supply.

From the above, fiscal discipline can affect monetary and financial policy tools, and consequently the positive impact in improving the above indicators, which ultimately improves the state's economic indicators in general, achieving economic growth (Aisne & Haunter, 2016:6).

The Third Topic: The Applied Side of the Research

Analysis of the Structure of Public Spending in Iraq for the Period from (1996) to (2015)

During the past two decades Iraq has witnessed high inflation, reaching record levels. Further, the United Nations economic embargo on Iraq led to an almost complete interruption in the export of crude oil. It closed the paths for financing public spending, especially in light of other revenues weakening. Therefore resort was had to financing the public budget through the new monetary issuance. This decision adopted a disastrous expansionary monetary policy, on the exchange rate of the Iraqi currency which has reached very low levels towards foreign currencies, especially the US dollar. Further, if this was the case for a period before The American Hills in April of 2003, the period that followed that also witnessed high rates of inflation that exceeded their levels in previous years, of the Iraqi economy. During the years of occupation, many economic establishments were disrupted and the prices of oil derivatives rose dramatically. This was reflected in its entirety in the prices of goods and services that escalated from 2003 to 2015.

Estimates of public expenditures indicate large leaps in the research period. The annual increase in some years has reached nearly (250%), as in the years 2000, 2008, and 2009. Perhaps this increase in public expenditures is in large part outwardly, due mainly to inflation and to a lesser degree of population increase, as has been demonstrated. If so, it is also clear that there is a real increase in expenditure that reflects the extent of the state's intervention in economic and social aspects, regardless of applied economic policy, and differences in the approach and philosophy of the economic system.

Important economic transformations accompanied the occupation of Iraq in 2003. They were represented by a shift from a central system to a free economy, and openness to the global economy and international monetary institutions. In spite of this the pace of escalation in public spending continued, due to persistence in the rise of important matters such as the salaries of state employees, transfer expenditures, and ration card support. The degree of state intervention in economic and social life can also be inferred by another means. One can measure the ratio of public expenditures to GDP. This indicator reflects the degree of the state's satisfaction of public needs, and the extent of the spending policy in the redistribution of national income. The ratio of public spending to GDP exceeded (30%) in most research years. It was limited between 2001 and 2007, as this period witnessed the application by the United Nations of the oil-for-food and drug agreement. The ability of the Iraqi government to dispose of oil revenues greatly diminished. The United Nations also paid compensation from those revenues, whether to Kuwait that Iraq invaded or to other countries and their nationals affected by this invasion. The trend of public spending can be analysed in Iraq for a while from 1996-2015, through the following table:

Table 1: Evolution of public expenditures and their ratio to GDP in Iraq for the period (1996-2015)

The year	Overhead (Billion dinars)	Annual increase rate	Gross domestic product	The ratio of public expenditures to GDP	General revenue (Billion dinars)	Financial surplus or deficit
1996	17.50	%23.20	21.00	%83.33	4.20	-13.30
1997	32.90	%88.00	57.00	%57.72	5.00	-27.90
1998	69.00	%109.7	141.00	%48.94	9.00	-60.00
1999	199.0	%188.4	704.00	%28.27	26.00	-173.00
2000	691.0	%247.2	2252.00	%30.68	107.00	-584.00
2001	543.0	%-21.40	2556.00	%21.24	178.00	-365.00
2002	606.0	%11.60	15093.0	%04.02	411.00	-195.00
2003	921.0	%52.00	17126.0	%05.38	520.00	-401.00
2004	1034.0	%12.30	34404.0	%03.01	719.00	-315.00
2005	1499.0	%45.00	50214.0	%02.99	1133.0	-366.00
2006	2070.0	%38.10	41315.0	%05.01	1289.0	-781.00
2007	2518.0	%21.60	41023.0	%06.14	1971.0	-547.00
2008	9233.0	%266.7	29586.0	%31.21	15986.0	6753.0
2009	33657.0	%264.5	53235.0	%63.22	32989.0	-668.00
2010	35981.0	%06.90	73534.0	%48.93	40436.0	4455.0
2011	37494.0	%04.20	95588.0	%39.22	49056.0	11562.0
2012	39308.0	%04.80	111456.0	%35.27	54965.0	15657.0
2013	67277.0	%71.20	155982.0	%43.13	80641.0	13364.0
2014	55590.0	%-17.40	139330.0	%39.90	55244.0	-346.00
2015	70134.0	%26.20	171957.0	%40.790	70178.0	44.00
	Correlation coefficient between overheads and GDP		0.9540	Correlation coefficient between public expenditures and public revenues		0.9870

Source: Ministry of Planning and Development Cooperation and the Central Bureau of Statistics

Also, by proportional measurement to GDP, public expenditures decreased during those years (2001-2007), due to the deflationary fiscal policy adopted by the government. After the inflation rate in 2000 reached a record level, and the Iraqi currency seriously deteriorated, the monetary policy was modified to deflation. The money supply was reduced. Some state property was sold, and the price of services was raised to provide revenue, as well as the relative reduction and rationalisation of public expenditures.

Public expenditures trend toward increases, and to jumping in their numbers. That is in addition to the fact that even an apparent increase does not mean success in financial policy. The role of this policy is limited, and public spending is based mainly on the level of

available revenues. To prove the foregoing, the researcher calculated the correlation coefficient between public expenditures on one side, and both public revenues and GDP on the other during the period (1995-2015). It was found that the correlation coefficient between public expenditures and GDP was (954.0). The correlation coefficient was higher between public expenditures and public revenues by proportions E (987.0).

Measuring the Impact of Financial Discipline on Monetary and Financial Policies in Iraq for the Period from (1996) to (2015)

Data were obtained from various government agencies and institutions. They include the Central Agency for Public Mobilisation and Statistics, and the Department of Economic Development in the Ministry of Planning and Economic Bulletin of the Central Bank of Iraq during the period (1996-2015). The general consumer price index was also used to exclude the effects of inflation, to measure the impact of discipline upon financial policy and monetary policy. That occurred through the statement of the impact of financial discipline on the tools of these policies such as investment, national consumption, government spending, taxes, demand and supply of money, workers 'wages, annual worker wages, and world productivity. If the labour demand, unemployment rate, inflation, interest rate, exchange and technology can be estimated, then Liverpool's general balance model can be estimated. Real-time equations can be used, by estimating the method for maximising the probability of complete information, as this is a real-time model limited to ten behavioural equations illustrated by the following:

$$GNP_t = \beta_{10} + \beta_{11}Gov_t + \beta_{12}Inv_t + \beta_{13}Ms_t \pm \beta_{14}D_t$$

$$Inv_t = \beta_{20} + \beta_{21}GNP_t - \beta_{22}IR_t - \beta_{23}ER_t \pm \beta_{24}D_t$$

$$Con_t = \beta_{30} + \beta_{31}WL_t + \beta_{32}Ms_t - \beta_{33}Tax_t \pm \beta_{34}D_t$$

$$Ld_t = \beta_{40} + \beta_{41}GNP_t + \beta_{42}Inv_t + \beta_{43}Inf_t - \beta_{44}W_t \pm \beta_{45}D_t$$

$$W_t = \beta_{50} + \beta_{51}Lpd_t + \beta_{52}Inf_t - \beta_{53}Un_t \pm \beta_{54}D_t$$

$$WL_t = \beta_{60} + \beta_{61}GNP_t + \beta_{62}Inv_t \pm \beta_{63}Tcn_t \pm \beta_{64}D_t$$

$$Tax_t = \beta_{70} + \beta_{71}GNP_t + \beta_{72}WL_t \pm \beta_{73}D_t$$

$$Inf_t = \beta_{80} + \beta_{81}WL_t - \beta_{82}Ms_t - \beta_{83}Un_t - \beta_{84}IR_t \pm \beta_{85}D_t$$

$$Md_t = \beta_{90} + \beta_{91}GNP_t - \beta_{92}IR_t \pm \beta_{93}D_t$$

$$Ms_t = \beta_{100} + \beta_{101}GNP_t - \beta_{102}IR_t \pm \beta_{103}D_t$$

Where:
GNP = GNP, GNP = GDP, = Inv National Investment, = Con GNP, = Gov Government Spending, = Tax, = Md Money Demand, = Ms Money Supply, = WL Worker Wages, = W Worker Wages Annual, = Lpd worker productivity, = Ld labour demand, Un =

unemployment rate, = Inf inflation rate, = IR interest rate, = ER exchange rate, = Tcn technology, = D sham variable (0-1)

Note that the pictorial variable represents the effect of the independent variable on the dependent variable in each equation of the model. Further, it takes zero value during the period before the occurrence of the economic crisis (1995-2007), while it takes one value in the period following the economic crisis (2008-2015). Moreover, it is possible to explicate the effect of external variables on the internal variable in each equation of the Liverpool model, as follows:

1. The gross national product function: Increasing government spending, investments, and money supply increases the country's gross national product during the specified years of research.
2. Investment function: An increase in the gross national product leads to an increase in investments, and an increase in the interest rate and the exchange rate will lead to a decrease in investments.
3. The consumption function: The increase in workers' wages and the money supply leads to an increase in consumption, while a higher tax leads to a decrease in consumption.
4. The demand for labour function: Increasing the gross national product, investments and the rate of inflation increases the demand for labour and vice versa.
5. The worker wage function: The increase in the worker productivity and the rate of inflation increases the wage of the worker, while the increase in the unemployment rate leads to a decrease in the wage of the worker.
6. Workers' wages function: Increasing the gross national product and investments increases the value of wages, while an increase in the level of technology can lead to an increase or decrease in the value of wages.
7. Tax function: Increasing gross national product and workers 'wages increases taxes.
8. Inflation function: Increasing workers 'wages increases the inflation rate, while an increase in the money supply, unemployment rate, and interest rate will lead to a decrease in the inflation rate.
9. Money demand function: an increase in the gross national product leads to an increase in the demand for money, while a higher interest rate leads to a decrease in the demand for money
10. Money supply function: an increase in the gross national product leads to an increase in the money supply, while a higher interest rate leads to a decrease in the money supply.

Note that the pictorial variable represents the effect of the independent variable on the dependent variable in each equation of the model. Further, it takes zero value during the

period before the occurrence of the economic crisis (1995-2007), while it takes one value in the period following the economic crisis (2008-2015). Moreover, it is possible consideration was given to revealing the standard problems that may face estimating the Liverpool model, which is the problem of self-association with the use of the Box-Pierce-Ljung test, which in turn follows the Kay square test at degrees of freedom. The problem of heterogeneity using the Engel test when degrees of freedom should also be noted, and the problem of not naturally distributing the limit of random error. The Jarque-Bera test is recommended at degrees of freedom. These problems could be addressed if they exist using the Newey West method, according to the slope method of the general moments method. One can explain, as follows, the interpretation of the effect of external variables on the internal variable in each of the equations of the Liverpool model.

Economic demand management policies of fiscal and monetary policy analyse the impact of changes in government spending and taxes (fiscal policy), and money supply (monetary policy) on the balance of production. Since 1996 financial and monetary reform have included reforming financial administration, and following up on updating financial legislation, to increase domestic resources, reduce the public budget deficit, and adopt a monetary policy that maintains the stability of exchange rates. The context is the shift to market mechanisms, and appropriate policies to address monetary imbalances, such as interest rate liberalisation, price reform exchange, the establishment of a free market for foreign exchange, and others. Economic demand management policies of fiscal and monetary policy analyse the impact of changes in government spending and taxes (fiscal policy), and money supply (monetary policy) on the balance of production. Since 1996 financial and monetary reform have included reforming financial administration. They have also included following up on updating financial legislation, to increase domestic resources, reduce the public budget deficit, and adopt a monetary policy that maintains the stability of exchange rates. Again, the context is the shift to market mechanisms, and appropriate policies to address monetary imbalances such as interest rate liberalisation, price exchange reform, and the establishment of a free market for foreign exchange and others:

Table 2: Liverpool model tests in Iraq during the period (1996-2015)

Dependent variable	R^2	MR^2	F	LM – Tests		
			Test	LMa.	LMh.	LMn.
Gross national product	0.84	0.81	17.1**	4.16*	1.66	1.28
Investment function	0.88	0.84	24.4**	1.48	1.35	2.29
Consumption function	0.96	0.92	57.1**	2.13	2.16	2.78
The number of workers function	0.91	0.87	25.2**	0.76	3.18	3.16
Worker wage function	0.93	0.91	47.3**	2.06	2.52	2.92
Wages function of workers	0.91	0.88	34.4**	1.28	1.42	1.89
Tax function	0.92	0.87	43.9**	2.19	2.47	2.47
Inflation function	0.84	0.79	12.6**	0.58	2.92	1.88
Money demand function	0.86	0.84	46.8**	4.93*	1.26	2.84
Money supply function	0.85	0.821	36.7**	2.18	2.07	2.33

Source: Preparing the research using computer results; where: R2: Determination Coefficient, MR2: Modified Determination Coefficient, F-Test: Calculated Value (F), LMa. : Self-link test, LMh. : Heterogeneity test, LMn. : Non-normal distribution test, (*): Under (LM-Tests) tests indicate the presence of a standard problem with the formula, (**): indicates the significance at the level of 0.01.

Table (3) shows the results of estimating the Liverpool model for general balance, where the results in their overall result came in line with economic logic, and the results of the Liverpool model for general balance in Iraq estimated for the period (1996-2015):

Table 3: Estimating the results of the Liverpool model for the general balance in Iraq during the period (1996-2015)

Var.		Functions				
GNP.	=	977.50	+ 1.750 Gov.	+ 2.140 Inv.	+ 1.170 Ms.	- 7.30 D.
		(1.120)	(2.470)*	(4.040)**	(2.980)**	(-2.510)*
Inv.	=	682.90	+ 0.330 GNP.	-2.140 IR.	- 1.240 ER.	- 9.70 D.
		(0.550)	(4.150)**	(-3.570)**	(-2.170)*	(-2.290)*
Con.	=	122.60	+ 1.670 WL.	+ 0.740 Ms.	- 0.510 Tax.	- 1.20 D.
		(0.660)	(2.470)*	(2.120)*	(-3.110)**	(-2.070)*
Ld.	=	5.50	+ 0.220 GNP.	+ 0.140 Inv.	+ 0.110 Inf.	+ 0.340 Tcn.
		(1.840)*	(3.150)**	(2.440)*	(3.510)**	(2.350)*
W.	=	8.20	+ 0.150 Lpd.	+ 0.050 Inf.	- 0.270 Un.	- 1.30 D.
		(2.15)*	(2.14)*	(3.330)**	(-3.410)**	(-3.470)**
WL.	=	24.30	+ 0.080 GNP.	+ 0.320 Inv.	+ 0.570 Tcn.	- 9.40 D.
		(0.790)	(3.770)**	(2.15)*	(2.91)**	(-1.96)*
Tax.	=	7.20	+ 0.270 GNP	+ 0.830 WL.	+ 5.870 D.	-
		(0.450)	(2.960)**	(2.220)*	(2.140)*	-
Inf.	=	9.90	+ 1.290 WL.	+ 0.370 Ms.	- 1.540 Un.	- 1.140 IR
		(1.160)	(2.550)*	(4.810)**	(-2.340)*	(-2.140)*
Md.	=	844.80	+ 5.490 GNP.	- 15.70 IR.	+ 6.40 D.	-
		(0.830)	(2.970)**	(-3.510)**	(1.980)*	-
Ms.	=	303.40	+ 5.430 GNP.	- 6.330 IR.	+ 8.30 D.	-
		(0.980)	(3.190)**	(-4.180)**	(2.170)*	-

Source: Preparing the research using computer results. (∗) ‹(∗∗) ‹(∗∗∗):It indicates significant at 0.05, 0.01 and 0.10 levels, respectively.

The numbers in parentheses (), and below the regression coefficients, refer to calculated (t) values. The most important economic results reached can be clarified, to show the effect of financial discipline on monetary and fiscal policies, as in the following:

1. The results show the effectiveness and efficiency of the fiscal policy, as the results show the response of the gross national product to government spending with a greater degree of money supply, therefore an expansionary fiscal policy can be used to increase government spending or reduce taxes with a view to increasing aggregate demand.
2. The gross national product, interest rate and exchange rate, the effect of the economic crisis, account for about 89% of changes in investments
3. Workers' wages, money supply, and taxes account for about 95% of changes in consumption.

4. The gross national product, investments, inflation, technology, employee wages and the impact of the economic crisis account for about 92% of the changes taking place in the demand for labour.

5. T*he worker's productivity, inflation, and unemployment rate* account for *about 94% of changes to a worker's* wage.

6. The gross national product and investments account for about 92% of the changes in workers' wages.

7. The gross national product and workers' wages account for about 91% of tax changes.

8. The wages of workers, money supply, unemployment rate, interest rate, and the impact of the economic crisis account for about 85% of changes in inflation.

9. The gross national product and the interest rate account for 87% of the changes in demand for money.

10. The country's gross national product during the years of research, the interest rate and the impact of the economic crisis account for about 84% of the changes in the money supply.

The Fourth Topic: Conclusions and Recommendations

Conclusions

During This Research, a Set of Conclusions were Reached, As Follows

1- The concept of financial discipline requires that total spending not exceed the quantities prescribed for it in the general budget of the state, or the fiscal deficit exceed a specific percentage of the gross domestic product, so that financial spending is within the capabilities and resources available to the state during a specific period.

2- A follower of the movement of public spending in Iraq, especially during the past two decades, notes an important increase in numbers over the years. In reality however, the matter is an apparent increase in most of them, and the main reason is the high inflation rates that the country witnessed.

3- Over many years researched in this study, public expenditures contributed 30% of GDP, indicating the extent of the state's interference in socio-economic fields.

4- There is a high correlation coefficient between public expenditures, and both public revenues and gross domestic product, and this indicates the weakness of fiscal policy in achieving the goals of economic stability.

5- Financial discipline can affect both the financial policy and the monetary policy of the country, and in a way that helps achieve economic development goals.

Recommendations

Based on the conclusions, the research recommends the following:

1- Intensify state control and rationalisation of spending, by using financial discipline, to improve the efficiency of spending departments, public debt and budgeting, to achieve developmental goals.

2- Break the link between the fluctuations of expenditures and fluctuations in revenues and GDP, which activates the role of financial policy in facing such fluctuations in the economic cycle.

3- Find realistic alternatives to the ration card, knowing that gradually cancelling subsidies will be important in addressing the public budget deficit.

4- Further reduce public debt, when using large financial surpluses to develop infrastructure and improve education and health, to make that spending more effective.

5- Draw up an agreed policy, setting priorities such as financial and monetary stability, and reaching advanced levels of economic growth.

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