Assessing the implementation of the fiscal rules in oil producing countries- a case study of Iraq

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Abstract:

Fiscal sustainability is a central tenet of fiscal rules adopted by European Monetary Union (EMU), which was followed shortly by a Treaty of Maastricht and the Stability and Growth Pact introduced a detailed framework of rules; it is a precondition for financial and monetary stability. Budgetary flexibility is needed for stabilization policy. oil revenue accounts for the majority of government revenue in most of oil producing countries including Iraq, thus ensuring that fiscal policy is on a sustainable path is a high priority. This paper is aiming to study the deviation results in oil-exporting countries as a result of the income earned by what are the changes in these rules as a result of those revenues, and to what extent managed fiscal policy and the support of monetary policy to access to digital border financial rules agreed as international standards

This study will try to work on the relation of oil revenues on fiscal rules and then their implication on the fiscal rules in Iraq. It will try to account the effect of long and short term response between the change in oil revenues and the abilities of countries to keep-hold of stable fiscal rules. This study will try to test the possibility of holding stabile financial rules in oil-exporting countries using ARDL model, which showed that the implementation and imposing constraints of the fiscal rules in oil producing countries (with Iraq as an example) of numerical fiscal rules is effected by fluctuating revenues.

Keywords: Fiscal policy, fiscal rules, debt ceiling, fiscal consolidation, budgetary rules, Iraqi economy.

Introduction

1.1. Preface

Iraq suffered like many countries in the region for many shocks and economic fluctuations cascading over the past decade, but the levels are treated different economies with these shocks varied significantly as a result of the adoption of countries to programs structural reform of the various fiscal and monetary policies aimed at remedying the imbalance in economic performance have increased their levels on the face of shocks in

order to maintain economic stability, depending on the exceptional nature of their economies.

The fact that many oil-producing countries form the oil revenues, the bulk or less estimate a significant part of government revenue, and which suffer from instability in world prices the great vulnerability of the global financial crisis and the recent, which became a recurring pattern and excite the world of panic and fear of the repercussions that extend quickly to aspects of the real economy which is witnessing turn a clear decline in growth rates, which means a significant reduction in the overall demand for many raw materials and energy sources volume was oil is the main affected by commodity that impact global prices to fall unexpectedly and its impact on government revenues in countries oil.

This volatility caused government revenues to a real disruption in the ability of the oil countries on their economies manage and require financial and policy rules that wanted her to be a very ambitious as it befits a high volume of revenue achieved before the crisis, which I expected it to last long but the event force befuddled departments Finance for these countries and make their choices limited and their ability to manage the crisis weak, especially in those countries where oil revenues represent the largest source of resources in hard currency, especially with the existence of social and political pressure calling on governments to continue spending policies do not fit with their obligations towards financial rules.

1.2. Objectives

The objective of the paper is to review the financial rules (inflation, interest rates, the surplus or deficit, public debt) and the possibility of deviation results in oil-exporting countries as a result of the income earned by what are the changes in these rules as a result of those revenues, and to what extent managed fiscal policy and the support of monetary policy to access to digital border financial rules agreed as international standards, the study found non-arrival of the two policies to internationally agreed standards in the two variables (inflation and interest) and access to the international standard in the two variables (the budget surplus, public debt).

1.3. problem of the study

The implementation and imposing constraints of the fiscal rules in oil producing countries of numerical fiscal rules that are guiding or on the discretion of policy-makers, and the effect that fluctuating revenues on these rules and monitoring them.

1.4. hypothesis

- Previous experiences during the crisis in EU illustrates how slowly fiscal discipline can assert itself and that governments can run budget deficits for years, even decades, before first facing the wrath of financial markets and next facing their emergency lenders. In absolute dependence on oil revenue the result is much different with a direct positive response on fiscal indexes.

- Fiscal discipline is not a concept or an annual Annie in sharp contrast with other indicators such as the stability and growth. They are medium to long-term characteristic, which may allow for slips or large temporary deviations along with the corresponding surpluses in the end.

2. Fiscal rules Definition and Objectives

2.1. Definition

One element of maintaining sound public finances is the existence of an appropriate institutional arrangement of the budget process. Concepts such as top-down budgeting, medium-term budgetary frameworks, independent fiscal institutions and numerical fiscal rules have been extensively explored in the literature. Fiscal rules came after a long period was characterized by substantial fiscal deficits and increasing government debt in most EU countries, namely the years 1975-1995.

Fiscal rule imposes a long-lasting constraint on fiscal policy through numerical limits on budgetary aggregates (Kopits and Symansky, 1998), which was a result of number of reason mainly (see for more details: Calmfors (2005), Morris et al. (2006), Debrun et al. (2009) and Calmfors and Wren-Lewis (2011) Calmfors (2015)):

- *Time-inconsistency of fiscal policy*. There may be a temptation to over-use fiscal deficits as a tool to raise aggregate demand, and therefore output and employment in the short run, because prices and wages are slow to adjust to unanticipated shocks.
- *Common-pool problems*. Various interest groups during elections may be lobbying for specific types of government spending benefitting them without proper regard for the long-run costs of the deficits that may result, since these costs are shared with other groups in society.
- *Political polarization and electoral uncertainty*. An incumbent government facing uncertainty over re-election prospects has an incentive to run deficits now, as this allows it to raise expenditure or cut taxes in a way that benefits its own constituency.
- *Exploitation of future generations.* A desire of the current generation to shift consumption in its favor (through government spending increases or tax cuts) from future generations either directly in the form of interest payments or indirectly in the form of crowding-out of investment leading to a smaller capital stock in the future.

2.2. The Fiscal Criteria of the Maastricht Treaty

The 1992 Maastricht Treaty set out ***convergence criteria*** that must be satisfied in order for countries to participate in the European Economic and Monetary Union (EMU). The main goal of the treaty is to ensure fiscal discipline in member countries of (EMU) to prevent any possible fiscal crises that might have a very negative effect on other countries of the union. Under the Treaty, fiscal discipline is to be judged on the basis of two main criteria (ECB, 2016):

2.2.1. Whether the government deficit as a percentage of GDP exceeds the reference value of 3 per cent of GDP.

2.2.2. Whether the ratio of gross government debt to GDP exceeds the reference value of 60 per cent of GDP with a possible exception.

2.2.3. The achievement of a high degree of price stability; this will be apparent from a rate of inflation which is close to that of, at most, the three best performing Member States in terms of price stability, inflation, observed over a period of one year before the examination, that does not exceed by more than 1 ½ percentage.

2.2.4. The ratio of the planned or actual government deficit to GDP exceeds a reference value (defined in the Protocol on the excessive deficit procedure as 3% of GDP).

2.2.5. Interest rates shall be measured on the basis of long-term government bonds or comparable securities, taking into account differences in national definitions, but will not exceed 2%.

2.2.6. The observance of the normal fluctuation margins provided for by the exchange-rate mechanism of the European Monetary System, for at least two years, without devaluing against the euro.

Adoption of fiscal rules came with the adoption of independent and accountable central banks conducting rule-based monetary policy under conditions of increased transparency and accountability (Elbadawi et al. 2011). Fiscal policy regimes are increasingly adopted by governments that aim at contributing to stabilize, business cycles and make public finances more resilient to political pressure But while rules seem attractive and straightforward to contain the spending and borrowing bias of profligate governments, it is by no means clear what institutional design they need and how they should be embedded into the government budgeting process to be effective.

Fiscal rules have been adopted for a wide variety of reasons, for example: (a) to ensure macroeconomic stability; (b) to enhance the credibility of the government's fiscal policy and aid in deficit elimination; (c) to ensure long-term sustainability of fiscal policy, especially in light of population ageing; or (d) to minimize negative externalities within a federation or international arrangement (Kennedy et al. 2001).They are used with increasing frequency to limit discretionary policymaking and control the "fiscal alchemy" that underlies capricious fiscal policies (Leeper, 2011).

Fiscal sustainability is the main aim of fiscal rules and which implies reaching or maintaining a sustainable debt level including contingent liabilities. These rules which bind fiscal policy do help to guide expectations, allowing economic agents to optimize their policies, and lead to a Pareto-optimal outcome. Secondary objectives of fiscal rules include facilitating a countercyclical fiscal stance, isolating policymakers from the influence of special interests groups, or minimizing government size (Andritzky, 2011: 5).

2.3. Component of fiscal policy

There are four components of effective fiscal policy rules. These components are particularly germane to an environment of weak public finances and heightened uncertainties about macroeconomic and fiscal developments (IMF, 2009: 20):

2.3.1. An unambiguous and stable link between the numerical target and the ultimate objective, such as public debt sustainability.

2.3.2. Sufficient flexibility to respond to shocks so that the rule should at least not exacerbate their adverse macroeconomic impact.

2.3.3. A clear institutional mechanism to map deviations from the numerical targets into incentives to take corrective actions.

2.3.4. Fiscal rules should be supported by a clear institutional framework. (Andritzky, 2011: 6).

2.4. Stability and Growth Pact (SGP)

The "Enhanced Stability and Growth Pact" SGP was adopted in 1997 and took effect when the euro was launched on January 1, 1999. In March 2011, the European Council agreed on the package to mandates the implementation of national fiscal rules for member states as part of the SGP to reinvigorate efforts in many EU countries to put national fiscal rules and reflect these rules into their national legislation (Andritzky, 2011: 3).

In the case of the fiscal deficit is covered by either (a) the payment of the deficit by gold or convertible currencies and thus reduce the level of reserves: (b) request a short term loan from creditor country, which will lead to a rise in the indebtedness of the country with the deficit: (c) or by borrowing from the international financial market, or from an international financial institution such as the IMF. (Aljaosi, 2000:23).

The autonomy plan for the balance of payments economic importance, especially in light of the of the information provided for the degree of interconnectedness of the economy of the State concerned the economies of other countries, and to provide further details about the time lag of development and structural shifts for international economic transactions and make predictions for the evolution of exchange rates and sources of foreign exchange and how to dispose of it. Balance of payments is also working on the formulation of appropriate economic policies, such as the country of asylum to the imposition of exchange controls in the case of the deficit in the trade balance to reduce imports. (Khalaaf, 2001: 32)

3. Case of implementation fiscal rules Iraq

3.1. Current budget constraints

All the current available evidence in the Iraqi economy in light of the significant decline in world oil prices expect a higher projected deficit in the 2016 budget to about (20) thousand billion dinars, or the equivalent of $ 17 billion, the deficit will lead directly to obtain increases in the base cash generates inflationary pressures reflected in the largest deficit in the current account of the balance of the Iraqi payments as a result of clear rise in

the exchange of dinar against the USD under the auctions of the Central Bank of Iraq, which led to enhance the value of the dinar against the dollar rate which encouraged increase import demand from abroad, both by the private and public sector.

Along to that, the reduction that was achieved in the global GDP, particularly in the United States and the European Group and Japan and the resulting negative impact on foreign direct investment and other forms of investment associated with the grants and loans volume growth rates is expected to be a significant burden, especially GDP growth in the Iraqi economy, which we expect them to be weak this year and next year due to the expected decline in investment rates. According to our estimates for the economic growth rate for the year 2009 and the year 2010 could fall up to (4-5%) annually, which will have many negative implications for employment and high unemployment levels.

The ability to absorb the shock caused by unexpected fluctuations in financial flows depends on the strength of the fiscal position of the government to enable it to facing the crisis and raise its ability to maneuver during the dramatic decline in revenue. Financial administration can alleviate the degree of volatility through a package of corrective measures designed to dimensions of the domestic economy from the fluctuation in oil revenues by working as much as possible of the disengagement between current spending and oil revenues and directing the latter as much as possible about investment spending and raise both domestic savings rate civil government and building assets of foreign exchange sufficient to pass the crisis when they occur. It was (the Norwegian experience) one of the successful examples in it was able to distribute the benefits of oil wealth over a long period of years, as well as protection of economic non-oil sectors of the negative effects of what is known as ((impact of the tunnels)) Spending effect caused by the phenomenon of ((Dutch disease)) Dutch disease, while other oil-producing countries were unable to restrain the expansion in public spending when there is a rise in oil prices, with the consequent difficulty of decline and reduce the tunnels during achieved decline in world oil prices and a decline in the volume of oil revenues at a time prevailing belief among the government agencies that this decline in prices is a temporary situation and will be easily overcome, This is discouraged by the government's determination to take the necessary treatments resulting in a widening case of fiscal imbalance and increase the proportion of the deficit and rampant inflationary pressures which causes that forced the government to take action may seem painful and late, especially in the postponement or cancellation of a number of investment projects, leading to a decline in economic activity and thus lower economic growth and declining operating level.

The processors and options can’t be effective if they are taken after the occurrence of the crisis, but has to be for the proceedings to come before the ex-ante the event and after the event Ex-post this be embedded mitigate bias of fiscal policy towards the expansion of the tunnels during the large influx of revenue oil and work to ensure the achievement of financial balance within the moderate and normal level of oil revenues and the government

must work hard to ensure that the accumulation of financial assets during the period of the oil windfall to sustain the fiscal policy for the period after such abundance.

The proper use of financial resources is one of the important aspects of development management in an efficient manner from the wise and whatever resources and large available must be managed optimally and channeled properly through investment programs and projects that serve the development objective and that the lack of attention to the optimal use of financial resources meant the other hand not the overall interest of balanced economic development.

3.2. Budgetary restraints

The few last years were very hard on the Government of Iraq; the current economic crisis has called for huge fiscal efforts to avoid a deflationary spiral, and it required a lot of measures to deal with new conditions (IMF, 2016:6-7):

3.2.1. *Oil revenue*: Oil production, located in areas under control of the Iraqi government and the KRG, is holding well. For the first 11 months of 2015, it increased by 14 percent and oil exports increased by 23 percent year-on-year..

3.2.2. *Non-oil revenue***:** Non-oil activity in the part of the country that is not occupied by ISIS dropped by 8 percent year-on-year during the first semester of 2015.

3.2.3. *The balance of payments:* The balance of payments registered a deficit during the first ten months of the year which was financed by the use of foreign exchange reserves.

3.2.4. *Foreign exchange*: The spread between the official and the parallel foreign exchange market rate receded to around 2 percentage points since August 2015 from as high as 16 percentage points in June.

3.2.5. *Public expenditure*: it was decreased dramatically during 2015 owing to the tight financing constraints, total spending was about 30 percent lower than the path assumed in the budget.

3.2.6. Public sector: The oil boom years of the early 2010s caused a rapid rise of the public sector activities which was reflected in a rise in its employees during the, which provided the seeds for the subsequent long decline in output. All of this came to a sudden end in 2014 when oil prices declined (SOMO, 2016).

3.3. Implementing fiscal policy

Since the late 1990s and early 2000s, emerging market and developing economies (EMDEs) exceeded those of advanced economies adopted fiscal rules, (47) of whom had a fiscal rule approved by 2012, compared with (28) approved in advanced economies, and fiscal rules have been often used in EMDEs to strengthen fiscal frameworks during and after large stabilization and policy reform episodes (Bova et al., 2014:4). Iraq has tried to adopt specific standards of financial management and through the issuance of financial management and public debt law No. 95/2004 which establishes a comprehensive

framework for direct taxation policy and the policy of the budget in line with the best international practices (including fiscal rules) by placing the organized stages of drafting the federal budget and a number of the required reports for the purpose of increasing the reliability and transparency of budgetary processes.

In Iraq, a fiscal rule should not only pursue fiscal sustainability, but it should also stay with the content of the currency board arrangement in accordance to Maastricht criteria of a ceiling on the deficit at (%3) of GDP and on debt at (%60). The fiscal rule should support as well the currency board arrangement adopted by (CBI). The Iraqi authority's inability to "create" money in according to the Central Bank law no. 52/2005 limits Iraq's available tools to finance any possible cash deficit. Therefore, the (CBI) authorities have set aside a "buffer" in the form of a fiscal reserve. While trying to maintain the reserve is closer to be an asset-liability management task than a fiscal one, the fiscal rule could for sure limit the budgeted deficit to an amount compatible with the available drawdown from the reserve, which would allow for countercyclical fluctuations might be caused by oil prices fluctuations.

Design of a fiscal rule needs to create a binding constraint in a way useful for developing and executing fiscal budgets and the allocation of resources between current and investment public spending. For example, Kneller, Bleaney and Gemmell (1999) find that public investment has a positive effect on growth which is non-significant in the case of public consumption. But with a very limited ability of the GoI to manage its public spending, it was a very sensitive trade-off between limit public spending to avoid it unproductive level or to use it to generate GDP with a sacrificing the bases of fiscal rules.

Iraq in its tackle to face these difficulties didn't obey to the very fiscal rules, against which the performance of fiscal policy can be judged (UK, 2001: 9):

3.3.1. The golden rule: over the economic cycle, the Government will borrow only to invest and not to fund current spending; and

3.3.2. The sustainable investment rule: public sector net debt as a proportion of GDP will be held over the economic cycle at a stable and prudent level. Other things equal, net debt will be maintained below 40 per cent of GDP over the economic cycle.

The capital which Iraq gets as a loan agreement (Emergency Fiscal Stabilization, Energy Sustainability, and State-Owned Enterprise Transparency Development Policy Loan) on 2015 was directed to cover current spending of the government and fulfill the deficit in the budget.

3.4. Stand-By-Agreement (SBA)

On 7/7/2016, the executive board of IMF approved Stand-By-Agreement (SBA) with Iraq in the goal of closing up a budgetary gap of $50 billion for the years of 16-2019 Credit facility of 5.3 billion in low interest rate of 1.5-2.5%. This agreement will also provide an overall cover for $20 Billion of soft loans, (3 Billion from WB, 3.5 Billion from IDB, 4.2

Billion soft loans from G7 including US loan. 4.6 Billion caused by rescheduling of Kuwait's compensation. (Salih, 2016)

3.4.1. SBA agreement requires defined baselines from the GoI to meet which includes preconditioned activities: limit the yearly budget to 90 trillion IQ, thus reducing current Iraqi budget for 2016 by 13 trillion, without affecting the level of wages or public spending. Minister of finance is responsible to see the fulfillment of these new restrictions.

3.4.2. Reference requirement: the agreement requires GoI to revise number of laws and roles like The National Commission for Integrity law according to the United Nations Convention against for Corruption, Iraqi Central Bank Law according to the requirements of internal audit and preventive controls adopted in the audit evidence at the IMF. As well as the adoption of a system of anti-money laundering provided by the central bank on the basis of money laundering to the 2015 Act, and Financial Administration Act in accordance with the observations and corrections of WB and IMF in order to maximize the government's financial transparency and raise the financial performance of the government level.

3.4.3. Other requirement of the agreements include Subjecting salaries and retirements and the accruals of projects (contractors and suppliers) to an advance scrutiny by the Federal Office controls in order to address any public funds paid unfairly. One more requirement is to holds an external auditing firm (in accordance with international auditing standards) to audit of both Internal and external sovereign debt, domestic and foreign assets of the Central Bank of Iraq and calculation of oil receipts for Iraq.

3.4.4. Ensuring the availability of sufficient funds to execute the budget even under adverse circumstances is an asset-liability management task. This was reflected on Iraq's cabinet when it discussed the Iraqi budget for 2017 to submit it to the Iraqi Parliament, it is estimated that the 2017 budget will be built on the basis of the price of $40 a barrel and that the budget expenditures initially estimated up to $82 billion. Iraq has held its commitment of the IMF to reduce spending by nearly 13 trillion ID, in return to fund a loan to cover the deficit.(Basma Press,2016)

Recent empirical research suggests that budget balance rules are effective policy tools as, on average, they are linked to better budgetary outcomes – that is higher surpluses or lower deficits. They therefore seem to address satisfactorily the deficit bias and are generally appropriate in terms of budgetary discipline (Debrun at al., 2008:26). Other researches had a major criticism of budget balance rules concerns their potential adverse effect on macroeconomic stabilization. Specifically, budget balance rules defined in nominal terms (either in level or as a percentage of GDP but not cyclically-adjusted) may introduce a pro-cyclical bias in the conduct of budgetary policy (EU, 2010: 99).

The volatility of commodity prices for the oil which was very unstable in the last few years makes it very important that Iraq put special concern to the debt limitations of fiscal policy over both medium and long term. An important challenge is to find the right balance

between current spending and saving-investing for the future with a depleting natural resources and keep a close look into the fiscal barriers and their sustainability. Keeping in mind the Iraqi Government is already under severe pressures caused by declining revenues and external debts under Paris Club treatments.

Keeping in mind that in about one-half of the EMDEs that are not members of a currency union, fiscal rules were introduced during an IMF program in the context of "second wave" programs of economic liberalization aimed at strengthening the basis of earlier fiscal consolidation (Bova et al., 2014: 7), and fiscal rules are generally established as part of a broad reform of the fiscal framework that seeks to support fiscal credibility and discipline, we would expect that the adoption of these rules will be the next step in the path of getting through its current crises with special interest in keeping a closer look into debt rule, inflation rule, exchange rate rule and budget balance rule (government expenditure) combination which we will try to analysis its relation with oil prices which is the main source of government revenue.

4. Financial statue and financial bases in Iraq

4.1. Current financial statue

As previously mentioned, fiscal rule is a long-lasting constraint on fiscal policy through numerical limits on budgetary aggregates. This paper will try in this part to interpret the country-specific information for Iraq with special consideration to those fiscal rules that set numerical targets on aggregates that capture a large share of public finances namely budget balance/GDP rules, public expenditure, debt/GDP rules, inflation rules, and interest rate rules for the years starting from 2003 for one main reason that is the UN economic sanctions that was imposed on it since 1990, thus limiting the impact of oil prices (the main export of Iraq) on these rules.

Table (1)
The evolution of monetary stability (thousand IQ)

years	Money supply M1 (1)	percentage change in Money supply (2)	current prices GDP(3)	percentage change GDP (4)	Monetary stability =(5) 4/2
2003	2159	-854	29585	19607	-0.04
2004	8616	299	47959	62.1	4.8
2005	11399	32.3	14419	-69	-0.5
2006	15460	35.7	16615	15.2	2.3
2007	21721	40.4	111455	570.9	0.1
2008	28189	29.8	157026	40.9	0.7
2009	37300	32.3	139330	-11.2	-2.9
2010	51743	38.8	162064	16.3	2.4
2011	62475	20.8	217327	34.1	0.6
2012	63735	2	251907	16	0.1
2013	73830	15.8	267395	6.1	2.6
2014	72700	-1.5	260600	-2.5	0.6

Source: first and the third columns from annual releases and reports of CBI.

It is very clear from the table (1) that exchange rates of (IQ) took a gradual improvement, which reflects the reduction in the amount of dinars issued. This improvement has accrued because of the monetary authority policy after 2003 and through their instruments used by the central bank and the improvement of mechanisms, which helped in reaching these goals (Abdulnabie, 2015: 16);

i. Auctions of foreign currency.
ii. Auctions remittances, bonds or open market operations.
iii. Facilities for lending and deposit.
iv. Create a payment system.
v. Reserve requirements.
vi. The liberalization of interest rates
vii. The Central Bank of Iraq in accordance with the system of debt management and financial analysis (DAMFAS) to reach a determination of its external indebtedness.

The main tool used by Iraqi monetary policy is the interest rate, instead of the money supply, but the limitation of Iraqi banking system and weak financial intermediation, in an environment of the of public sector dominance of GDP of activities of service up to 80%, As well as the dominance of oil revenue of government revenues, all of these factors led to a decline and a large fluctuation in interest rates, and diminishing role in the conduct of macroeconomic activity (Dagher, 2010: 36).

4.2. Empirical Evidence on the Impact of Fiscal Rules

For the past decade, Iraqi oil export revenues enjoyed a large increase after almost four years of oil prices in triple digits which was reflected on a large current account surpluses, set to register current account deficits. The decline in oil prices has driven to the decline of Iraq's international reserves (including the Development Fund for Iraq) and the ability to finance these deficits with financing difficulties and pressure on reserves that Iraq is facing now with a limitation on its non-renewable resource with its undiversified economy, put uncertainties of its ability to implement the criteria of fiscal rules specially with the role that government expenditure in Iraq decisions has a larger bearing on the current account than in other economies. Oil exporters have a number of special characteristics that may blunt the effectiveness of the exchange rate as a tool for adjusting the trade balance and hence the current account balances (Behar and Fouejieu, 2016: 5).

Oil resources in the case of Iraq, with Absence of Sovereign or Investment funds, Have shown the temporariness of the oil resource which is expected to be positively correlated with the current account balance and budget deficit, Adding to all of these factors, the future oil revenues are highly uncertain, mainly because of large fluctuations in prices (Maliszewski, 2009: 9). The paper has chosen to keep five of fiscal indicators only as it suspected they may show high co-linearity with oil prices. This emphasis is important from a policy perspective for Iraq because government spending is currently the main lever of fiscal policy and non-oil revenues still plays only a limited role in generating GDP.

Along with oil prices as an independent factor, there is the total amount of oil exported by Iraq as a factor reflected on total revenues which witnessed a very continues increase since 2003 with a total amount of 317.9 million barrel to reach 912.5 million barrel in 2014, which was because of many revolutionary events coincided after 2003 in Iraq, mainly: political change, transition from a central economy to a market economy, State building, transition in philosophy regarding investment, rebuilding a new petroleum industry (Shaalan, 2016:27). We will take in account exported oil only, keeping in mind that there are a certain quantities of crude oil that will be refined in Iraq's refineries for the production of various oil products to cover domestic consumption requirements as fuel for various modes of transportation, power plants and industrial projects.

Table (2)
Financial environment and Fiscal rules in Iraq

years	Public debt (IQ) y 1	public expenditure (IQ) y 2	Interest rate % y 3	Exchange rate$ against IQ y 4	Budget surplus or deficit / GDP y 5	Crude oil revenues Million US$ x
	Standard (60.0%)	Standard (No reduction)	Standard (2%)	Standard (No reduction)	Standard (3.0%)	
2003	5774	1982	16	1936	- 0.6	11,343.7
2004	5925	33657	7.8	1453	1.8	17,455.7
2005	6255	35981	9.4	1462	98.0	23,199.4
2006	5307	33487	14.0	1434	66.1	29,708.1
2007	8180	30315	16.90	1266	16.6	37,771.3
2008	6816	59403	16.58	1203	13.3	61,883.7
2009	8434	52567	14.07	1182	1.9	38,964.7
2010	9180	64351	13.39	1186	3.2	51,453.0
2011	7446	78757	12.97	1216	13.8	79,407.5
2012	6547	105139	12.91	1166	11.5	93,778.5
2013	4658	119128	12.79	1232	2.6	89,349.8
2014	9520	83556	10.67	1214	-4.6	83,538.8

Source: CBI, *Central Bank of Iraq Annual Report*, multiple years, Statistics & Research Department, http:// www.cbi.iq

One of the main challenges that Iraqi central bank with the intent of adopting an open economy policy adjusts its policy rate in response to a change in its domestic macroeconomic outlook that is, in turn, triggered by a monetary policy decision made in reflect of external factors resulted from oil prices. This fact was reflected on the possibility of State of Fiscal Risks for GoI for the years of the case study and failed to provide an annual budget giving sensitivity analyses and an overview of all other material fiscal risks, quantified to the extent possible. The statement should contain information on risks broken down into the following categories (IMF, 2007: 71):

I. ***Variations in key forecasting assumptions*;** the fiscal effects of variations in key assumptions underpinning the macroeconomic forecasts.

II. ***Contingent liabilities;*** these may include guarantees, indemnities, and warranties; uncalled capital (e.g., in international financial institutions); and litigation against the government.

III. ***Uncertainty about the size of specific expenditure commitments;*** where provision has been made in the budget for expenditure on an item or activity but there is a greater-than-usual degree of uncertainty about the likely cost, the risk should be disclosed.

IV. ***Other items that have not been included in the budget because of the extent of uncertainty about their timing, magnitude, or eventuality;*** for example, the government may have announced a general intention to introduce a tax or expenditure policy change, the details of which have not been finalized sufficiently for inclusion in the budget.

This paper has proven again and provided a broad support the bases of "Magic Square", which was invented by British Economist of post-Keynesian current Nicholas KALDOR (1908-1986), to define the 4 main points of the economic policy growth, the rate of unemployment, the external balance of trade balance and the stability of prices. He emphasized on the role of sustainable budget deficit which has becomes a handicap on governments eventually make new debt to pay the old debts (Medrano and Teixeira. 2013: 5). The monetary policy plays a pivotal role in the stabilizing program takes precedence in the treatment of the balance of payments imbalance; we found that the monetary imbalance a big role in other financial indexes we studied.

Foreign shocks have significant effects on the domestic economy of Iraq. Thus, we expect monetary and fiscal policy prescriptions to be very fundamentally different from those in an advanced or an independent economy.

4.3. Model test of the relation between factors:

To test the stability and correlation between Crude oil revenues and fiscal policy we used the model of Autoregressive distributed lag (ARDL). The data in table (2) was amended to be quarterly data for the purpose of implementing econometrics which will give more accurate and objective results if it was a long-time series, as well as the model (ARDL) characterized by the ability to estimate the short and long-term elasticizes, as well as it can be applied in the case if the sample size is small, unlike most traditional integration tests application (Alafroqi, 2016:198).

The method to change yearly to quarterly data and get (48) sample was through (Diz) method (Farazmand, et al, 2014: 303):

$Q_1=Z_{t-1}+7.5/12(Z_t-Z_{t-1})$
$Q_2=Z_{t-1}+10.5/12(Z_t-Z_{t-1})$
$Q_3=Z_t+1.5/12(Z_{t+1}-Z_t)$
$Q_4=Z_t+4.5/12(Z_{t+1}-Z_t)$

Where:

Z_t: value in variable in year *t*

Z_{t-1} and Z_{t+1}: the value of the variable in the prior and following year to the year t

$X_{i:}$ Initial Value of i before amendment, where i = 1, 2, 3

We will assume that the function is a Simple linear regression which takes the following linear form: -

$$y1 = f(x^-),\ y2 = f(x^+),\ y3 = f(x^+),\ y4 = f(x^-),\ y5 = f(x^+)$$

Where:

x= Crude oil revenues (independent variable)

y1= Public debt with an inverse relationship with crude oil revenues

y2= public expenditure with positive relationship with crude oil revenues

y3= Interest rate with positive relationship with crude oil revenues

y4= Exchange rate with an inverse relationship with crude oil revenues

y5= Budget surplus or deficit with positive relationship with crude oil revenues

Table (3) determine the length of lag by Unrestricted Error Correction Model (UECM) to test the stationary of data and amend the years through time-lag based on three criteria (AIC) Akaike info criterion, Schwarz criterion (SC) and (Hannan-Quinn H-Q).

Table (3)
Testing length of lag by (UECM)

variable	lag	H-Q	SC	AIC
x	2	39.51388*	39.56491*	39.48381*
Y1	4	56.98217*	57.44139*	56.71149*
Y2	1	59.74222*	59.89529*	59.65199*
Y3	4	44.06997*	44.52918*	43.79929*
Y4	4	51.02058*	51.47979*	50.74990*
Y5	4	48.45919	48.91841	48.18851

Source: outcomes of Econometric Eviews 9th version

Results also suggest that the time lag for the variable of first difference for (x) is the second time lag, for variables (Y1, Y3, Y4, Y5) are in the fourth time lag, and (Y2) is of the first time lag in all three criteria used that the values of variables are minimum. Thus the degree of ARDL Model for the variables of (Y1, Y3, Y4, and Y5) will be of fourth level, and variable Y2 of first level.

Table (4)
Unit root tests for the variables of the study Augmented Dickey–Fuller

variables	(ADF)								
	Level for original data t	Critical values			Level for adjusted data t	Critical values			State of integration
		1%	5%	10%		1%	5%	10%	
crude oil revenues (x)	-0.527	2.6-	1.9-	1.6-	6.821-	2.6-	1.9-	1.6-	I(1)
Public debt (y 1)	0.147-	3.5-	2.9-	2.9-	6.782-	3.5-	2.9-	2.6-	I(1)
public expenditure (y 2)	-0.527	2.6-	1.9-	1.6-	- 6.821	2.6-	1.9-	1.6-	I(1)
Interest rate (y 3)	1.385-	3.5-	2.9-	2.6-	- 7.241	2.9-	2.9-	2.6-	I(1)
Exchange rate (y 4)	- 0.154	3.5-	2.9-	2.6-	6.786-	3.5-	2.9-	2.6-	I(1)
Budget surplus or deficit (y 5)	- 3.422	3.5-	2.9-	2.6-	3.401-	3.5-	2.9-	2.6-	1(1)

Source: outcomes of Econometric Eviews 9th version

According to table (4) and using augmented Dickey–Fuller test (ADF) in view of the critical values, the relation between the variable of crude oil revenues (x) and the variables of chosen fiscal policies indicators are non-stationary (volatility) in the level of the original data, which means that the degree of integration of zero (0) 1, and all variables becomes stationary after taking first differences of data which means that they are Integrated of first (1)1. In this case, bounds that are chosen for Autoregressive-Distributed Lag (ARDL) to test for cointegration between dependent variable (Y) and oil revenues (X).

Except variable of public budget / GDP (y5) is stationary. All the variables become stationary after the adjustment of the data, with integrated of first class 1 (1). In this case, we need to examine variables using model of Autoregressive distributed lag (ARDL) to detect co-integration relationship between the variables and the crude oil revenue (y).

Table (5)
Bounds Test and testing coefficient of determination

Variables	y1	Y2	y3	Y4	Y5
F.Statistice	58.218	7.035	0.230	12.638	0.2964
critical Bound	Significance	10%	5%	2.5%	1%
	Minimum bounds	4.04	4.94	5.77	6.84
	Maximum bounds	4.78	5.73	6.68	7.84

Source: outcomes of Econometric Eviews 9th version

Results in the table above shows that the calculated counted value of F is equal to (58.218), for the variable of Public debt which is greater than the value of the F-critical value in it minimum abstract level of (1%) which is (6.84), which means to accept the alternative hypothesis and there is a long-term balance between independent variable (X) and the dependent variables (Y1) during the period of the study. And we also note that there is a long-term equilibrium relationship between the variables of public spending (Y2), Y4 exchange rate)), while the variables of interest rate ((Y3 and the general budget / GDP Y5)) To accept the Null hypothesis which states for the lack of a Joint integration between (Y3) (Y5) and (X).

Table (6)
Coefficient Long Run for ARDL model

Variable	Coefficient	t-Statistic	Prob.
y1	26.998985	1.161903	0.2527
y2	0.837038	10.022852	0.0000
y3	60.340993	0.622315	0.5369
Y4	1336.025-	-0.632489	0.5313
Y5	14618510.61	0.186257	0.8531

From table No (6), it can be seen that there is a long-run positive response among the public debt ($y1$) and GDP (x) where change by one point in the oil revenues are will cause an increase in public debt by 26.9 point, which is statistically significant. Although this does not seem consistent with economic theory since the higher oil revenues should lead to a reduction of public debt, but the rise in oil revenues in Iraq led successive Iraqi governments to expansionary fiscal policies in the annual general budget outweigh the rise in oil revenues, forcing to resort to public debt with a bad management of public finances. there is also a big long-run response to a changing public spending ($y2$) and this is due to the size of the excessive spending witnessed in this period, seem consistent with economic theory. The interest rate ($y3$) seems consistent with economic theory though the value of (t) is weak which is in line with the results of table (5).

The interest rate variable ($y3$) signal is consistent with economic theory, reaching a regression coefficient (661.9). In the sense that every increase in the proportion of oil revenues.

A negative signal as it appeared to the variable exchange rate ($y4$) to reflect its relationship to oil revenues, which means that the increase of oil revenues by one point will cause a reduction of exchange rates by (1336), because of the fact that an increase in oil revenues would mean an increase in the revenues of (CBI), which it has to commercialize in the currency auction and thus reduce the value of local currency.

Finally, the signal appeared to the variable of general budget / GDP ($y5$) is positive and is consistent with economic theory, this Confirms reliance of the general budget and thus GDP on oil revenues and support the results of table (5) of that there is no equilibrium relationship integrative with oil-revenue in the long- run.

5. policy-oriented conclusions

5.1. Recent efforts have focused on strengthening fiscal frameworks and the interaction among many of their main constituent elements which is very suitable for Iraqi economy with its very unstable fiscal and monetary policies. This paper have shown that enjoyment the Central Bank of its full independence in stabilizing Price, is not enough to reduce the conflict between monetary policy, on the one hand, and financial policies, but there is a need to create a specialized institution in coordination with fiscal policy.

5.2. In addition to implementing a covering rules with specific numerical targets fixed in legislation with a transitional period and procedures, it will be necessary to consider also other fiscal arrangements, in particular expenditure ceilings, as fiscal rules for which the targets can be revised and the composition of revenues of the central government .

5.3. The effort in implementing fiscal rules in the case of Iraq has to take a special consideration in the relation between national /regional rules and authorities to sustain budgetary consolidation that will shape better the fiscal policy making at the national level.

5.4. It will be worth to try designing a better balance between sustainability and flexibility goals to match each national aim of Iraq under the constraints of fiscal rules , as they tend to account for economic shocks, and are often work battery in the presence of independent institutional arrangements from executive institutions with in GoI (such as independent fiscal councils).

5.5. National fiscal frameworks need to be strengthened and adapted in the light of the lessons of the crisis to start diversifying the economy and get rid of the dependence of the Iraqi unilateral economy to oil revenues, which will hinder the sustainability of implementing fiscal rules which is clear in the econometric model of the paper where all dependent variables are directly related to oil revenues.

5.6. The effectiveness of monitoring relies on the in availability of updated and reliable data in order to monitor compliance with the rule in an effective manner, this requires from GoI to create and enhance these data by an independent body or an external monitoring body.

5.7. econometric analysis shows that there are long-term a positive response between the public debt ($y1$) and Oil revenue (x), and also there is a long-term response to a changing public spending ($y2$), this is due to the size of the excessive spending witnessed in the period of the study, the interest rate ($y3$) and the general budget / GDP ($y4$), it shows also the lack of a long-term response to the variable exchange rate ($y5$) because the parameters are not statistically significant because of the disengagement between fiscal policy and monetary caused by the Iraqi Central Bank Law.

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