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Macro-Fiscal Policy toward Economic Diversification and Employment Generation in Iraq

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Abbreviations

GDP	Gross Domestic Product
ID	Iraqi Dinar
IHSES	Iraq household socio-economic surveys
ILO	International Labour Organization
IMF	International Monetary Fund
NPD	National Development Plan
OECD	Organization for Economic Co-operation and Development
OPEC	Organization of the Petroleum Exporting Countries
PDS	Public Distribution System
PPP	Public Private Partnership
SDG	Sustainable Development Goal
SME	Small and Medium Enterprise
SWF	Sovereign Wealth Fund
UNDP	United Nations Development Programme
UNESCWA	United Nations Economic and Social Commission for Western Asia
UNSD	United Nations Statistics Division
VAT	Value Added Tax

I. INTRODUCTION

Macroeconomic trends in Iraq are driven by two major developments in recent years. First, Iraq's oil sector revenues suffers badly due to low oil prices since 2014. Iraq's economy is highly reliant on oil sector performance. In 2017, the oil sector accounted for 65 percent of GDP, 90 percent of central government revenues and almost 100 percent of exports despite that the low oil prices, since 2014, severely undermined the oil revenues (oil revenues declined by 53 percent between 2014 and 2016). Unlike historical evidence of oil price shocks and their recovery, the recovery path in the post-2014 period remained very slow and unpredictable, albeit some upward price movements were noted in 2017 and 2018 but they fell again sharply toward the end of 2018. Furthermore, in 2017, oil production was reduced owing to the OPEC agreement that aim to rebalance the global oil market and correct prices, which continued in 2018 and 2019 as well. For Iraq, the consequences in the post-2014 period are significant loss of revenues, decline in economic growth, and sharp rise in fiscal and balance of payment deficits.

Second, since 2014, Iraq suffered severely from the war against extremist groups.ⁱ The conflict has led to contraction of economic growth, destruction of infrastructure, dampening of investment confidence and increased poverty, vulnerability and unemployment. The number of internally displaced persons (IDPs) increased to 3 million and the number of people in need of humanitarian assistance increased to 11 million, equivalent to 29 percent of the Iraqi population.ⁱⁱ Poverty rates, which declined from 23.5 percent in 2007 to 19.8 percent in 2012, increased since the start of the conflict. The poverty rate in 2014 was estimated at 22.5 percent. Furthermore, the conflict has diverted resources away from productive investments or meeting development priorities towards spending on security and defense, as revenues are tightened due to low oil prices.

Given the narrowed fiscal space and unfavourable macroeconomic performance, public sector employment generation became stretched to its limit. Public sector absorbs a large share of labour force in Iraq, but many of them tend to be in disguised employment. In 2017, 42 percent of all jobs were covered by the public sector. The compensation to employees accounts for about half of the public operating expenses, amounting to US\$ 30.3 billion out of total operating budget of US\$ 63.6 billion. The high expenditure for employment generation, however, became unsustainable due to the remarkable loss of fiscal space rooted in conflicts and low oil prices in recent years. Since private sector is not solid enough to generate the necessary jobs, rise in unemployment is the consequence. According to an estimate, at least 2.5 million unemployed Iraqis are in need of jobs by 2018 and most of the unemployed are young.ⁱⁱⁱ The country is recovering from conflicts so more than 1.8 million displaced people are yet to return to their

homes. Without adequate jobs for the youth, women and internally displaced persons (IDPs) to integrate them in the development mainstream, peace and reconstruction are at risk.

High unemployment, weak private sector, low productivity of non-oil sectors, large informal sector and low efficiency of institutional performance are heart of persistent development challenges in Iraq. Shifting gradually from oil to non-oil economic sectors that generate more jobs as compared to the oil sector and creating enabling conditions for promoting a productive economy through appropriate fiscal incentives will require painstaking structural reforms over the medium to long term. However, this transformation is essential for making growth and revenues more sustainable, as argued by the UNESCWA (2017) report on *Rethinking Fiscal Policy for the Arab Region*. A permanent shift to achieve higher productivity and economic diversification would not be possible without addressing supply-side constraints such as improving human capital, infrastructure, science and technology. Lessons can be learned from other countries around the world, such as from Malaysia, which successfully steered the process of economic diversification and employment generation through use of oil revenues.

An immediate concern for the Government of Iraq is to create livelihood opportunities and jobs with dignity, while at the same time enhance the fiscal space. The National Development Plan 2018-2022 targets fostering economic diversification, raising economic growth rate and reducing unemployment, while improving institutional efficiencies. In addition, the Poverty Reduction Strategy 2018-2022 aims to reduce Iraq's poverty to 17 percent by 2022. These strategies are geared toward aligning with the SDGs and achieving the Iraq Vision 2030 in which creating opportunities for generating sustainable income, empowering and building human capital and establishing effective social safety nets are regarded as crucial enablers. The national efforts have started toward achieving the objectives. Their successful implementation relies on identifying critical drivers and application of appropriate macroeconomic and analytical tools, along with institutional reforms.

Given this background, this paper examines the challenges of employment generation in Iraq in the context of contemporary macroeconomic situation in Iraq, including economic growth and diversification, fiscal reforms and education levels of workforce. The second section discusses the critical macro-fiscal and unemployment challenges in Iraq in recent years. The third section examines the evolution of economic sectors, employment, education and poverty in Iraq along with the role of public transfers in addressing inequality, drawing upon findings from the two rounds of household socio-economic surveys. The fourth section analyzes the ways in which fiscal policy can influence economic diversification and employment generation and discusses policy options and analytical tools. In addition, it discusses a macro-fiscal framework that can be

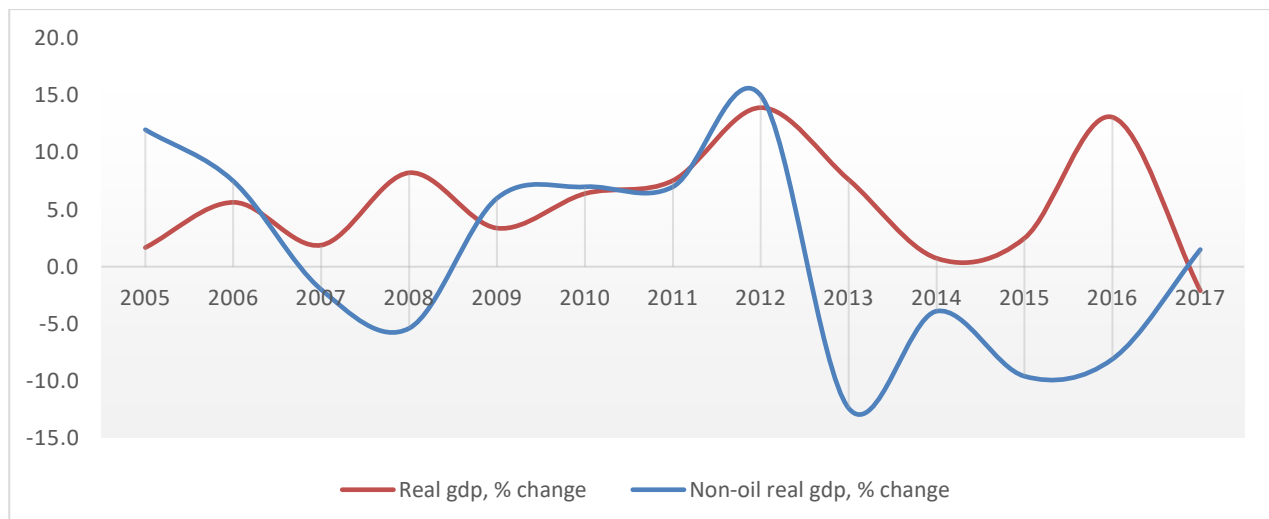
tailored to agreed targets and objectives, aiming at achieving sustainable economic growth and revenue diversification in a more systematic way.

II. MACRO-FISCAL TRENDS AND EMPLOYMENT CHALLENGE IN IRAQ

A. ECONOMIC GROWTH REMAINED VULNERABLE TO OIL PRICE AND CONFLICTS

Economic growth, measured in real GDP, in Iraq remained volatile during 2005 and 2017, largely tracking the changes in oil price and impact of conflict. In the pre-conflict years (before 2014), the years that witnessed oil price shock, such as 2009, economic growth also plummeted. The episodes that witnessed high oil prices, such as 2010-2013, also reported high economic growth (about 9 percent on average). But thereafter growth rate declined during 2013 to 2014 and 2014 to 2015 (Figure 1). During 2015 to 2016, economic growth became stronger again, owing to strong oil production and exports.¹ In 2017, growth in Iraq fell sharply to -2.1 percent, mainly due to a reduction in oil production in compliance with the OPEC+ agreement as well as the poor performance of the non-oil sector. The nominal GDP per capita decreased from US \$ 6,517 in 2014 to US \$ 5,088 in 2017.^{iv}

Figure 1. Real GDP Growth and Non-oil Real GDP Growth in Iraq (2005-2017).



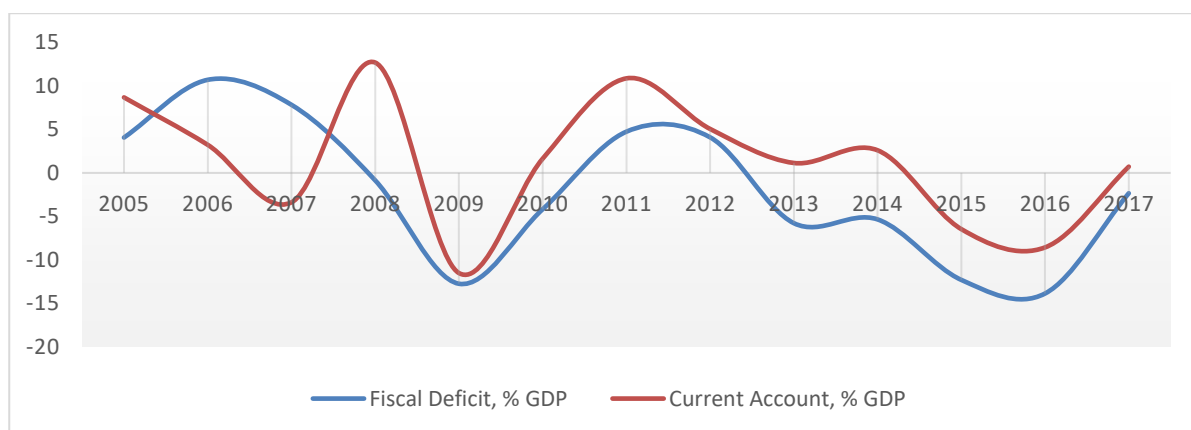
Source: World Economic Outlook Database April 2018 and IMF (2017).

¹ According to Ministry of Planning, growth of real GDP picked up to 6 percent during 2015 and 2016 as against 3.5 percent during 2014 and 2015. Average growth rate during 2010 and 2015 remained around 6.6 percent. These figures are slightly different than those reported by the IMF, although the pattern remain similar, due to differences in the period of the year and GDP calculations.

The non-oil real GDP growth in Iraq was marked by high fluctuations during the period between 2005 and 2017. During 2005 to 2008, the non-oil growth declined from 12 percent to -5.4 percent respectively. In 2009, it recovered to 6 percent and increased to 15 percent in 2012. During the severe conflict affected years, such as 2013-2016, non-oil growth was hit badly. It declined sharply to -12 percent in 2013 and recorded negative growth rates for the consecutive years between 2013 and 2016.^v Since 2014, the non-oil economy was contracted by 21.6 percent. Agricultural production decreased by 40 percent. In 2017, the growth of non-oil sector output turned positive, 1.5 percent, mainly fuelled by the construction sector and services, along with private consumption and investment.

Reduced export revenues resulting from lower oil prices, and a weak non-oil sector that can hardly compensate the revenue losses, contributed to rising fiscal and current account deficits in Iraq, particularly since 2014 (Figure 2). In addition, during the conflict affected years, higher security and humanitarian outlays and weak controls rapidly deteriorated the fiscal balance. The fiscal deficit reached 12 percent of GDP in 2014 and deteriorated further to 14 percent in 2016, despite a 23 percent cut in primary expenditure between 2015 and 2016. The fiscal deficit largely tracks the current account deficit in Iraq, as noted in figure 2. During the period, the current account surplus of 2.6 percent of GDP in 2014 turned to a deficit of 8.5 percent of GDP in 2016. Foreign exchange reserves declined to \$45.2 billion at the end of 2016, which is about 6.7 months of imports of goods and services.^{vi} Gross debt to GDP in Iraq doubled from 31 percent of GDP in 2013 to 65 percent of GDP in 2016.

Figure 2. Fiscal Deficit as a percentage of GDP and Current Account as a percentage of GDP, in Iraq (2004-2017).



Source: World Economic Outlook, April 2018.

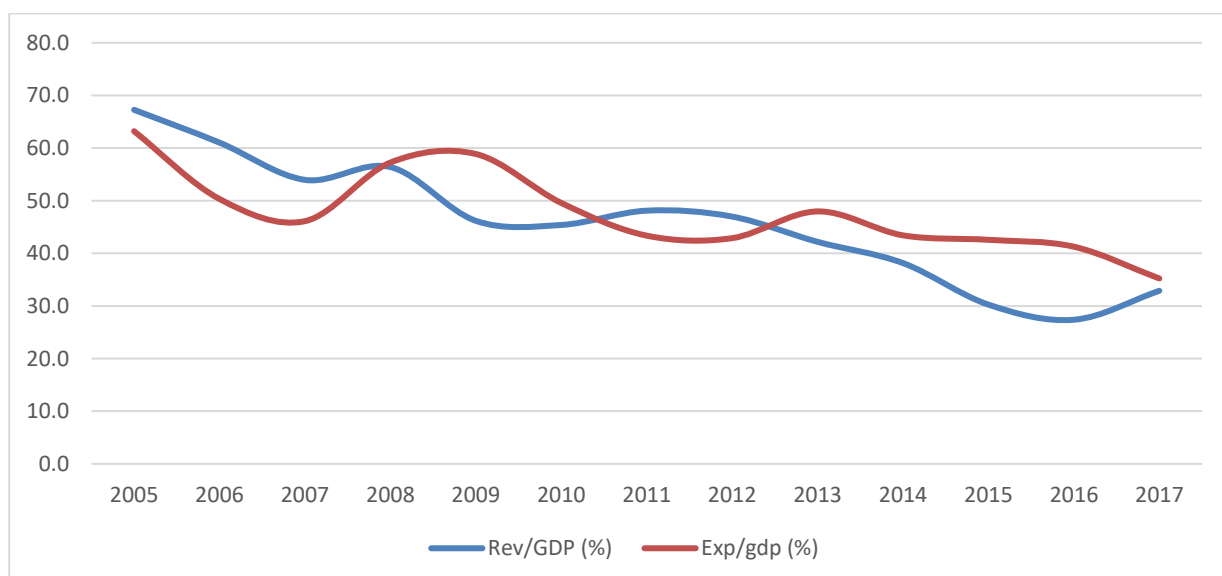
In 2017, the fiscal deficit is estimated to have narrowed to 2.3 percent of GDP, benefitting from the higher revenues due to rising oil prices during the year and also due to introduction of

measures to increase non-oil revenue through fiscal reforms, such as augmentation of non-oil taxes with a flat 3.8 percent withholding tax on wages, along with decline in public investment and a freeze in expenditure in pensions and salaries.^{vii} Given the pickup in oil prices and exports, the current account showed some improvement in 2017, from a deficit of 8.5 percent of GDP in 2016 to a surplus of 0.8 percent of GDP in 2017. The gross debt to GDP declined to 57 percent of GDP in 2017 owing to fiscal consolidation efforts and improvement in revenues due to higher oil prices.

A worrisome trend is that total revenues, as a share of GDP, declined continuously from about 67 percent in 2005 to 33 percent in 2017 (more than halved). The decline in revenues is accompanied by a secular decline in expenditure, as a share of GDP, from about 63 percent in 2005 to 35 percent in 2017 (Figure 3). The trend shows a significant decline of public expenditure over the span of 12 years (at a rate of 4.8 percent negative growth per annum). Given the high prevalence of income poverty, multi-dimensional poverty, and high reliance on public sector jobs in Iraq, such an aggressive decline in public expenditure is expected to accentuate poverty and reduce jobs.

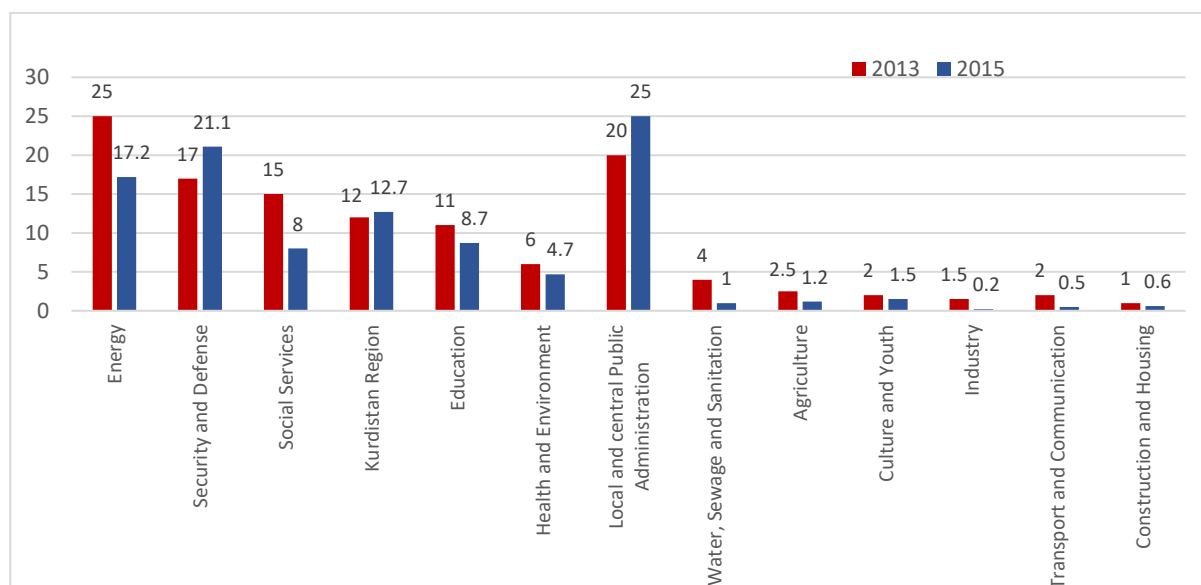
Furthermore, in response to conflicts, the allocation of resources shifted more to security and defense and public administration at the cost of social services, education, energy and other developmental sectors, as noted between 2013 and 2015 (Figure 4). By one estimate, almost 800,000 jobs were lost during the crises.^{viii} All these have negative impact on poverty and employment, but the challenges of sustainable revenues are rooted in lack of diversification of the economy and the resources.

Figure 3. Revenue and expenditure (% of GDP) (2005-2017)



Source: World Economic Outlook, April 2018.

Figure 4. Distribution of expenses in 2013 and 2015 by sector (US \$ billion)



Source: UNAMI Iraq (2015), based on data from the Ministry of Finance, GoI, August 2015

B. THE SHARE OF TAX REVENUES IS LOW AND NARROWED BY LACK OF ECONOMIC DIVERSIFICATION

Iraq appropriates most of central government revenues from oil exports. Oil revenues constituted between 85 to 90 percent of total revenues during 2008-2017 (Figure 5). Non-oil revenues made up the remaining 10 to 15 percent and are mainly derived from transfers and direct taxes.² Taxes on personal income and corporate tax are the most dominant types of tax and generate about half of non-oil tax revenue (Table 1). However, there are several exemptions and administrative weaknesses that undermine the effectiveness of the tax system in Iraq and contribute to eroding the tax base, these are discussed in further detail in Box 1.

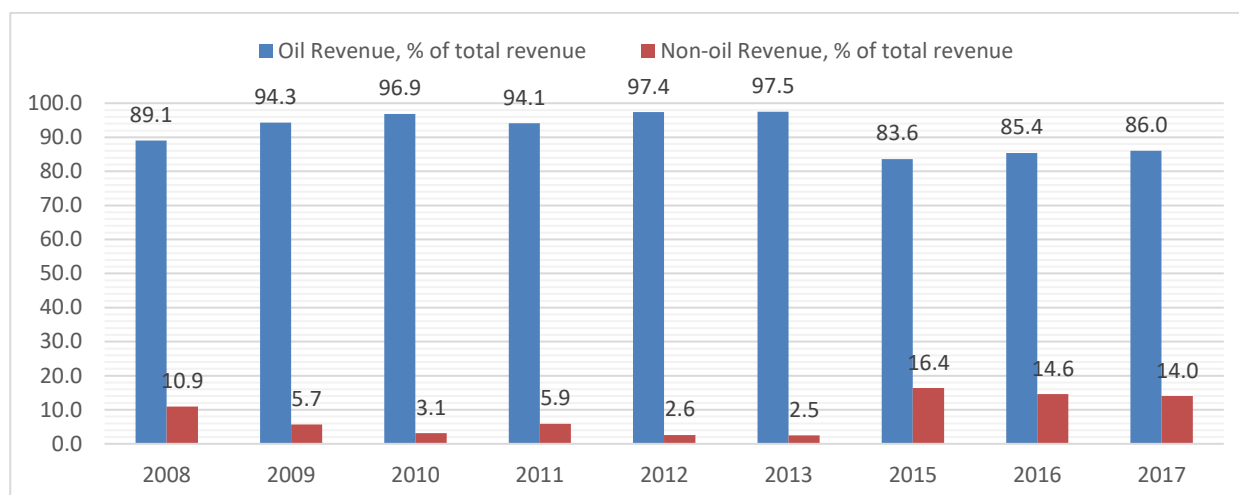
Table 1. Revenue sources as a percentage of total revenue (2016-2017)

	2016	2017
Oil revenues	85.4	86.1
Income and corporate tax	3.8	4.3
Commodity taxes and production fees	3.2	2.5
Tariffs	0.9	0.9
Budget share of public sector earnings	3.6	1.2
Capital revenues	0.1	0.1
Transferred surplus from other entities	0.4	3.6
Other charges and taxes	2.6	1.3

Source: Iraq Budget 2017 Analysis. (% are calculated based on this data).

² During 2015-2017, the relatively larger share of non-oil revenues (than the previous years) is mainly due to reduction in share of oil revenues owing to the low oil prices.

Figure 5. Revenue sources as a share of total revenue (2008-2017)



Source: Ministry of Finance of Iraq, Annual Federal Budget Law (2008-2017).

Box 1. Effectiveness of the tax system in Iraq

The effectiveness of the tax system in Iraq is undermined by several exemptions and administrative weaknesses that together contribute to eroding the tax base. Personal income tax in Iraq amounts to less than 0.5 percent of GDP compared to an average of 4 percent of GDP for a set of comparable countries. The main reason for underperformance of tax is exemptions and deductibles. For instance, pension contributions are fully deductible from taxable income and accumulated investment income and capital gains are not subject to taxation. In addition, there are several allowances and deductions based on gender, marital status and number of children, for instance. This created a scheduler personal income tax system with multiple effective tax rates, therefore reducing tax collection and complicating tax administration.

Similarly, corporate income tax in Iraq amounts to only 0.2 percent of GDP compared to 5-8 percent of GDP for comparator countries in recent years. The corporate income tax system also suffers from many exemptions, allowing for tax incentives, holidays and exemptions, especially for investments.

Only a limited number of indirect taxes were levied on specific goods and services in 2015. These include airline tickets, cigarette products, alcoholic beverages, mobile telephone services, subscription for internet usage and hotel and restaurant services. These taxes were not applied as part of standalone regulation or law that would have ensured their continuity of enforcement of taxes beyond the annual budget cycle, this has created weakness in enforcement by the tax administration. Iraq is however set to some sales and excise taxes on some goods and services in 2018.

Finally, custom duties collected amount to less than \$600 million, entailing an effective tariff rate of just 1 percent. This is due to several constraints including a complicated customs code with many exemptions, weak administration and porous borders.

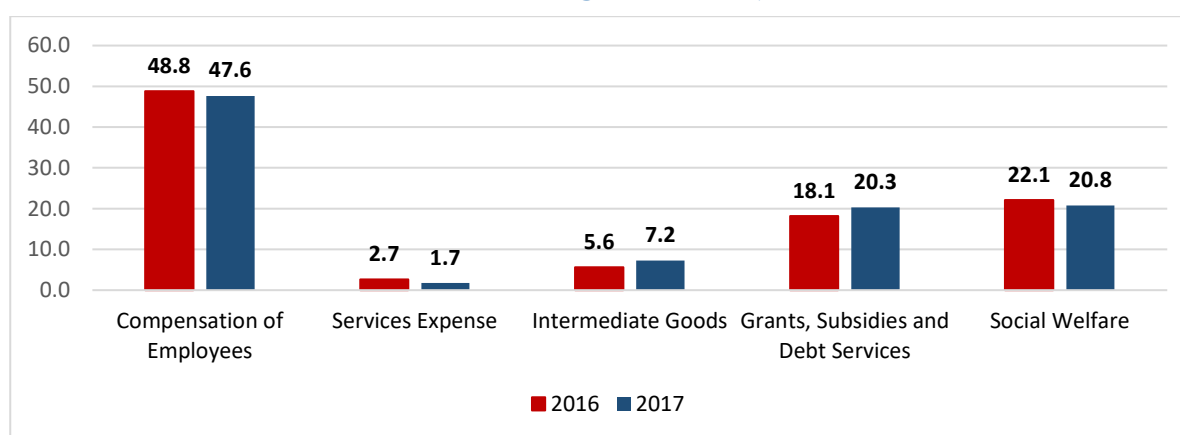
Source: Based on IMF (2017b).

C. PUBLIC EXPENDITURE REFORMS FURTHER CONSTRAINED PUBLIC SECTOR EMPLOYMENT GENERATION

Public expenditure in Iraq is composed of operating expenses and investment expenses. Operating expenditure accounts for about 75 percent of total expenditure, such as salaries and wages, grants, goods and services, social expenses including social benefits and financial expenses including interest on debt. Consequently, investment expenditure share is only around 25 percent, most of which goes to the oil sector. Recent estimates on investment shows that investment share in oil sector increased during 2013 and 2016, while that in the non-oil sector declined sharply.^{ix}

Out of the operating expenditure, almost half of it is allocated to compensation of employees, which includes wages, allowances, incentives and pensions. In 2016, out of a total operating budget of US\$ 67.8 billion, US\$ 33.1 billion was spent on compensation of employees, equivalent to 48.8 percent of the total operating expenses (Figure 6). Similarly, in 2017, out of a total operating budget of US\$ 63.6 billion, US\$30.3 billion was spent on compensation of employees, equivalent to 47.6 percent of the total operating expense.

Figure 6. Distribution of operating expenses to selected sectors (as a percentage of the total operating budget, 2016-2017).



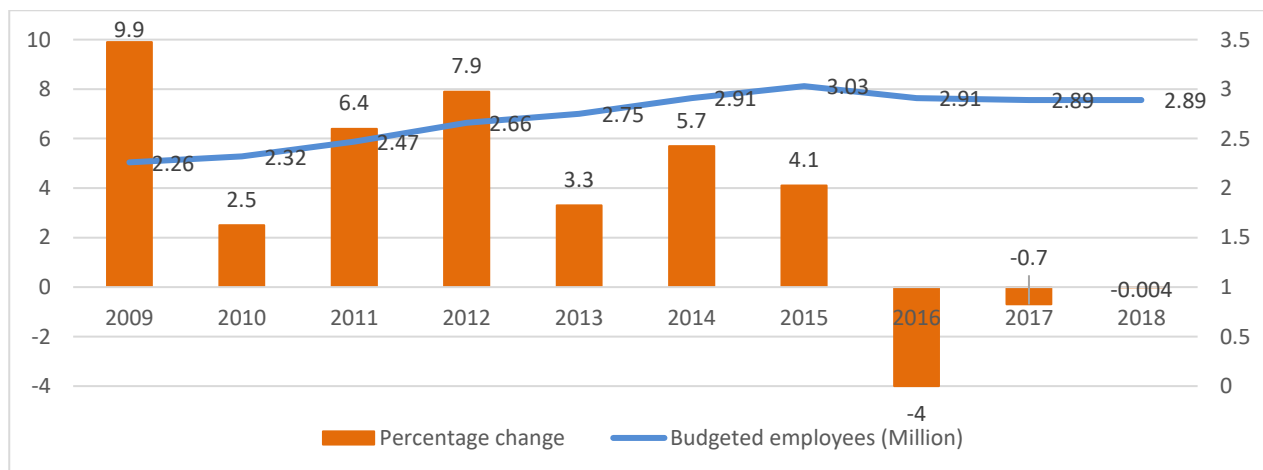
Source: Iraq Budget 2017 Analysis.

The public-sector wage bill has been the most rapidly growing component of the total budget since 2005.^x The number of public sector employees increased from 2.06 million in 2008 to 3.03 million in 2015 (Figure 7). In 2017, it was around 2.9 million, representing approximately 42 percent of all jobs.^{xi} The total number of people employed by the public sector increases to 3.5

million if state-owned enterprises are taken into account. This is high even by regional standards. The share of employment in the public sector as a share of total employment in oil-rich countries ranges between 11 percent in Oman and 32 percent in Algeria in 2014.^{xii} According to an assessment, part of the sharp increase in public sector employees is driven by some fraudulent recruitment and payroll practices without proper checks and balances.^{xiii}

Since 2016, this trend in increasing public sector employment is reversed consequent with reforms in the wage bill. Under the IMF Standby Agreement, the Government of Iraq has committed to reduce the number of public sector employees through natural attrition. The strategy entails (1) freezing employment in all sectors except three priority sectors (Ministries of Education, Health and Defense) and (2) hiring only one new employee for every five retiring employees in the three priority sectors. This is expected to contribute to a 2 percent reduction in the number of civil servants, annually. Along with the reduction of public employees, the government is introducing a biometric system to control attendance and electronic payments.^{xiv}

Figure 7. Number of employees in the public sector (2009-2018).

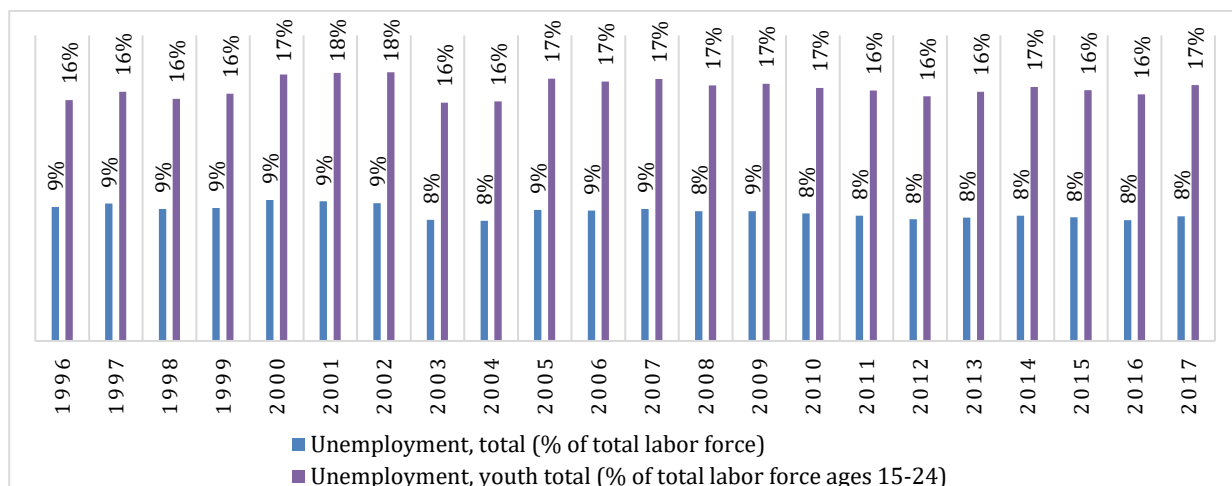


Source: Annual Federal Budget Law 2008-2018.

Note: The data for the year 2014 is the linear trend estimate as there was no data reported.

The tightening of employment generation in public sector is expected to complicate the problem of unemployment, particularly for the youth. Total unemployment rate, which stands at around 8 percent in 2017, used to be high even in pre-crises years (Figure 8A). The youth unemployment rate (ages 15-24) is high at around 17 percent. Among the youths, female unemployment rate has increased over the past decade and reached at around 24 percent. Iraq has one of the youngest populations in the world, almost 50 percent of Iraqi's are below 19 years of age and 60 percent are below 35 years of age. The youth population is projected to increase by an additional 7 to 10 million by 2030.^{xv} It is estimated that at least 2.5 million unemployed Iraqis urgently need jobs and the demand for new jobs is expected to increase by 100 to 180 percent by 2030.^{xvi}

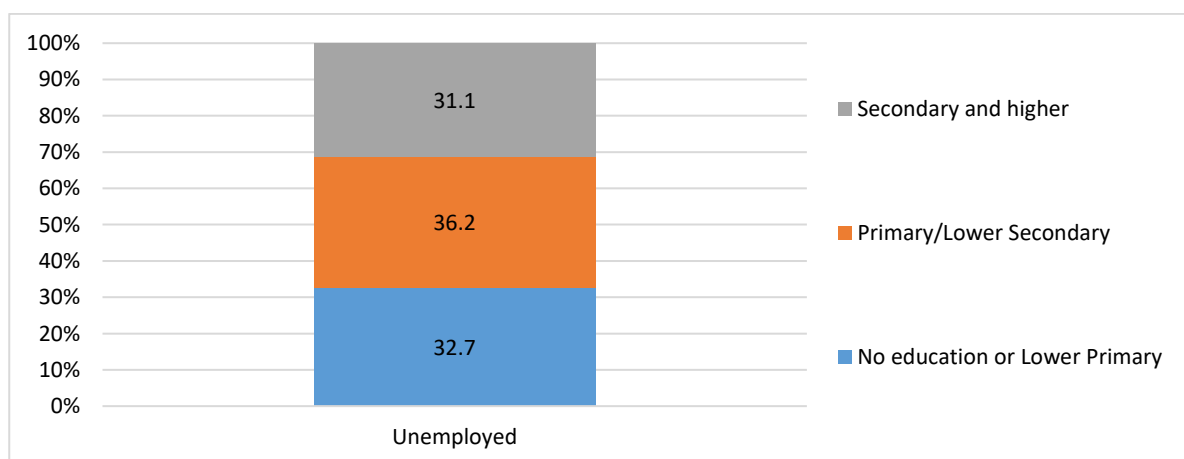
Figure 8. A - Unemployment Rates 1996-2017



Source: World Development Indicators (World Bank 2018c).

The Iraq household socio-economic survey 2012 showed that out of the unemployed³, in the age group of 15 and above population that are not studying, 32.7 percent have lower primary or no education, and another 36.2 percent have completed lower secondary or primary education. This implies that about 69 percent of unemployed in Iraq have not completed secondary education. Only 31.1 percent of the unemployed have completed secondary education levels (Figure 8B). However, the problem of employment opportunities for the higher educated youth is even more difficult, which tends to increase in recent years. It is expected since opportunities in the public sector are narrowed, with the introduction of reforms, while private sector is not able to attract higher educated youth.

Figure 8. B -Share of unemployed by education level, 2012



Source: Authors' calculation based on Iraq - Household Socio-Economic Survey, IHSES 2012

³ According to the IHSES 2012, the estimate of unemployed are those who are reported not working because of social reasons, work ended, was dismissed, unable to get a job or for security reasons or because they cannot find a job and are currently searching for a job.

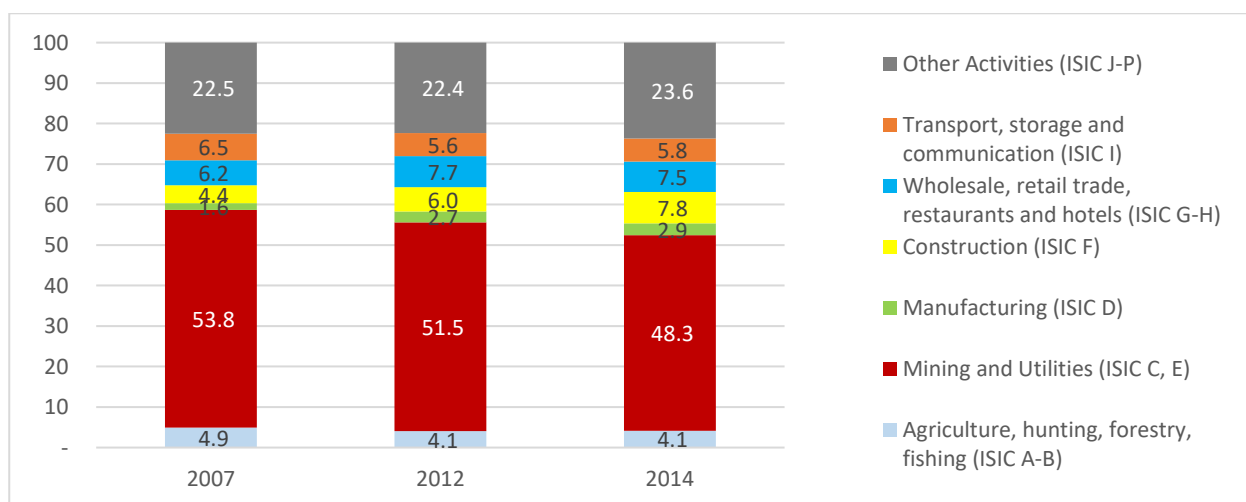
While creating adequate employment opportunities for the higher educated youth is a major concern, education improvement and skill development are urgent actions needed toward building a quality workforce that can address the mis-match in labour demand and supply. Furthermore, a major challenge is to create productive employment. In the past, mere employment has not provided a pathway out of poverty, considering that 70 percent of the poor were in households with employed heads.^{xvii} Krishnan et al. (2014) argue that the modest reduction in poverty in Iraq between 2007 and 2012 points to a weak relationship between economic growth and poverty reduction. They suggest that it may be due to weak links between economic growth and employment or between employment and earnings, or both. Given the quality of labour force, it is complex to arrive at any causality. In this context, the next section discusses the evolution of the economic sectors, employment and education levels to better understand the employment generation and poverty reduction challenges and policy reforms.

III. EVOLUTION OF ECONOMIC SECTORS, EMPLOYMENT, EDUCATION AND POVERTY IN IRAQ

A. ECONOMIC SECTORS AND EMPLOYMENT SHARES

Being an oil resource-rich country, mining and utilities continue to have a dominant share in GDP in Iraq. Over time and during 2007-2014, its share has decreased marginally while the share of construction output and those in other services increased during the same period. In 2014, the shares of construction and other services remained at 7.8 percent and 23.6 percent, while manufacturing and trade were only 3 and 7.5 percent respectively (figure 9).

Figure 9. Output shares by industrial classification

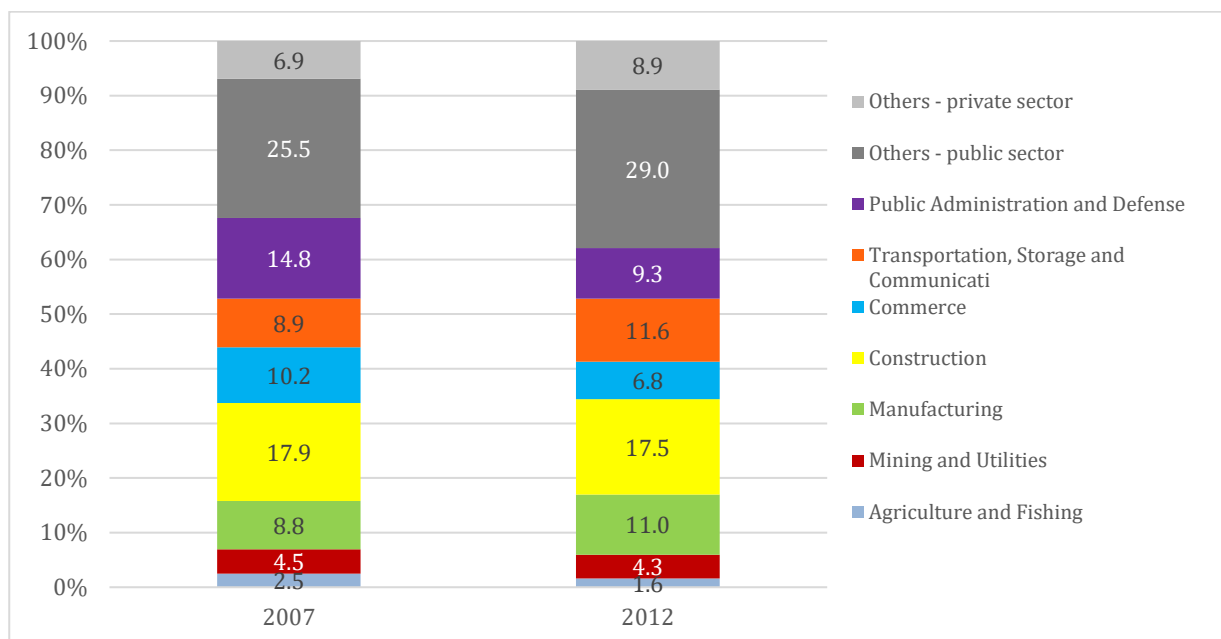


Source: UNSD 2018.

We do not have sectoral employment data for recent years from the ILO. The employment data for all the six sectors, as per figure 9, are available for 2008. It shows that agriculture sector and

other activities constituted 23 percent and 34 percent, respectively, of total employment in Iraq.^{xviii} Both the sectors represent presence of high informal workers that are engaged in largely low value-added activities. It becomes evident by comparing their share of employment and share of output. Together their share is 57 percent of employment but they contribute only 28 percent of total output. A similar low productivity pattern is noticeable for manufacturing, construction, trade as well as transport sectors. In contrast, mining and utilities constituted only 2.5 percent of employment with a contribution of 53 percent to output. The pattern of output shares has not changed dramatically over the years since 2008. One would expect that the labour share of the sectors did not change much between 2008 and 2014. In fact, agriculture still constitutes about 20 percent of employment in Iraq.^{xix}

Figure 10. Share of employees (wage earners) by industrial classification



Source: Authors' calculation based on Iraq - Household Socio-Economic Survey, IHSES 2006/2007 and 2012.^{xx}

Note: population age 15+, employees. This doesn't include the self-employed.

The Iraq household socio-economic surveys (IHSES) for 2007 and 2012 reports industrial classification of “employees”⁴ as well as their occupation in public or private sector. This indicator is limited to employees in the sense that they earn a wage. It implies that the self-employed are not included. Therefore, the results need to be interpreted with a caution, in particular for the sectors such as agricultural employment, which generally comprise of higher number of self-employed than employees. Based on the information from IHSES, we estimated the share of

⁴ According to IHSES, employee is the person identified as waged worker.

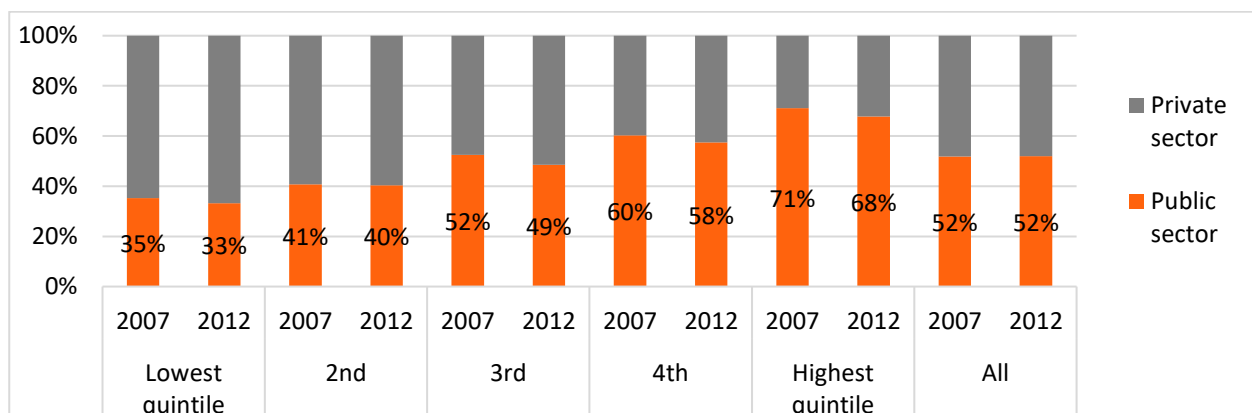
employees across the industrial sectors (Figure 10). The highest share of employees was reported in the other-public and others-private sector (about 38 percent), while construction sector absorbed about 17.5 percent of total employees – both sectors tend to be lower productive than others. Manufacturing sector absorbed about 10 percent of the total employees. Manufacturing and transport are the two sectors that showed an increasing share of employees between 2007 and 2012. The rest of the sectors showed a decline. It would be interesting to further examine the character of employees by their education level and their share in the public and private sectors across the industries.

B. PUBLIC OR PRIVATE SECTOR EMPLOYMENT

Public sector is a big provider of employment in Iraq. It constituted 42 percent of total employment in the year 2017.^{xxi} According to the IHSES 2007 and 2012, 52 percent of employees were in the public sector, and the share did not change during the five years (Figure 11). Most public sector jobs are in public administration and defense or in mining industry or in other-public sector services. As high as 81 percent of employees working in mining and utilities sector belong to the public sector in 2012 (Figure 12). Private sector jobs are concentrated in agriculture, construction, trade and commerce, and others, and also they constitute a major share in manufacturing, transport and communication sectors.

For similar jobs, wages in public sector tend to be higher than those in the private sector^{xxii}. It is evident that the share of employees working in the public sector is larger (about two-third or above) in the highest quintile than that in the lowest quintile. In contrast, nearly two-third share of employees are in the private sector in the lowest quintile, which indicates to low remunerative jobs in the private sector as opposed to public sector. As compared to 2007, the share of public sector employment of the top three quintiles declined between 2 to 3 percentage points, while public sector employment share in the bottom two quintiles declined by 1 to 2 percentage points.

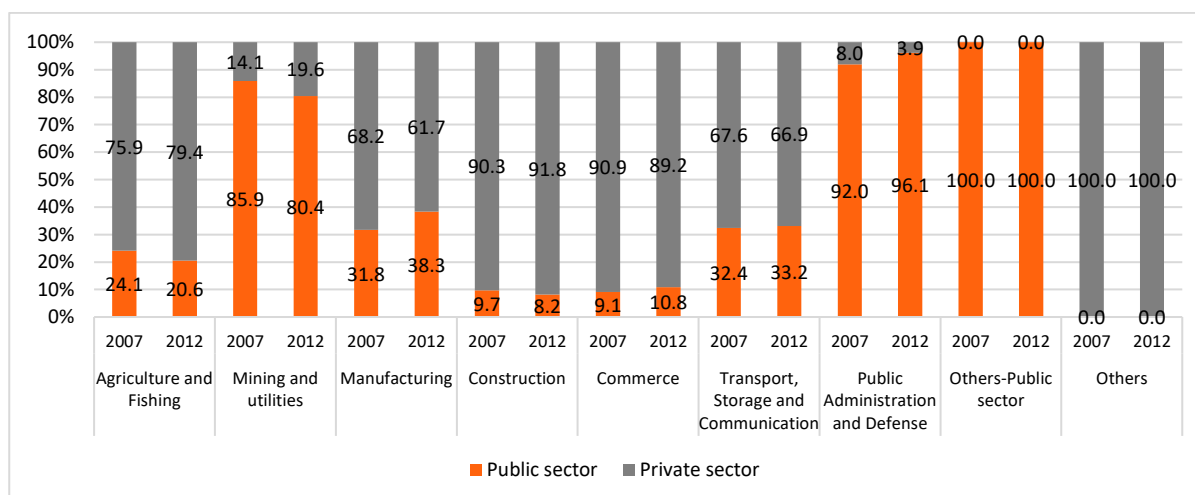
Figure 11. Share of employees by public and private sector across income quintiles



Source: Authors' calculation based on Iraq - Household Socio-Economic Survey, IHSES 2006/2007 and 2012

Note: population 15+ age and employees.

Figure 12. Share of public and private sector employees across industries (2007-2012)



Note: population 15+ age, employees.

Source: Authors' calculation based on Iraq - Household Socio-Economic Survey, IHSES 2006/2007 and 2012

C. EDUCATION LEVELS OF EMPLOYEES

A larger share of public sector employees are higher educated as compared to that in the private sector. In 2012, a little over half of public sector employee, about 52 percent, were having secondary and higher education, as against only 12.8 percent having secondary and higher education in the private sector. Only 14.6 percent of employees had lower than primary education in the public sector as compared to 43 percent in the private sector (Figure 13). About 87 percent of employees in private sector were below the completion of secondary education in 2012. This pattern of labour absorption across public and private sectors shows a weak private sector with low human capital and possibly a vast majority would be largely working in the informal sector. In fact, the IHSES analysis showed that, in 2012, 40 percent of the people in the age group of 15 and above, and not studying, have not completed primary level education (Box 2).

In both private and public sector, the share of employees having a secondary and higher education decreased between 2007 and 2012, which could find its roots in the mismatch between the education system and the labour market (UNDP, 2014). The 2014 UNDP Iraq Human Development Report reveals that unemployment rates are higher for graduates, and explains this phenomenon by the fact that education creates a large number of graduates but the labour market is not able enough to absorb the graduates, especially because of low production capacities (except in the oil industry).^{xxiii}

Figure 13. Education level of employees in public and private sector (2007-2012)



Note: population 15+ age, employees and not currently studying.

Source: Authors' calculation based on Iraq - Household Socio-Economic Survey, IHSES 2006/2007 and 2012

Lack of transparency in the hiring process is also an issue. The 2012 Youth Survey shows that only 8.7 percent of young people affirm getting their jobs thanks to educational attainment, and 52.5 percent thanks to family and personal relationships.

The public sector lost many educated employees over the period 2007-2012. The decline in absorbing higher educated people in public sector may be seen in relation to government measures. In 2005 the government adopted a public sector employment expansion policy in order to increase the number of public sector employees. This policy aimed at alleviating poverty and decreasing unemployment rates. The positions created required low-level skills, such as guards, cleaners and painters. Moreover, a new pension bill passed in 2006 allowing employees to keep their achievements when they move from one sector to another. Consequently, employees can keep their prospects in terms of promotion, bonus and retirement even when they may move from public to private sector. The bill also equalizes pension rights between private and public sector.^{xxiv} Hence, some of the public sector characteristics, which made it so attractive compared to the private sector, have been modified and this could explain why the public sector lost more educated employees than the private sector between 2007 and 2012. However, figure 15 reveals that this pattern does not stand for every industry within the public sector.

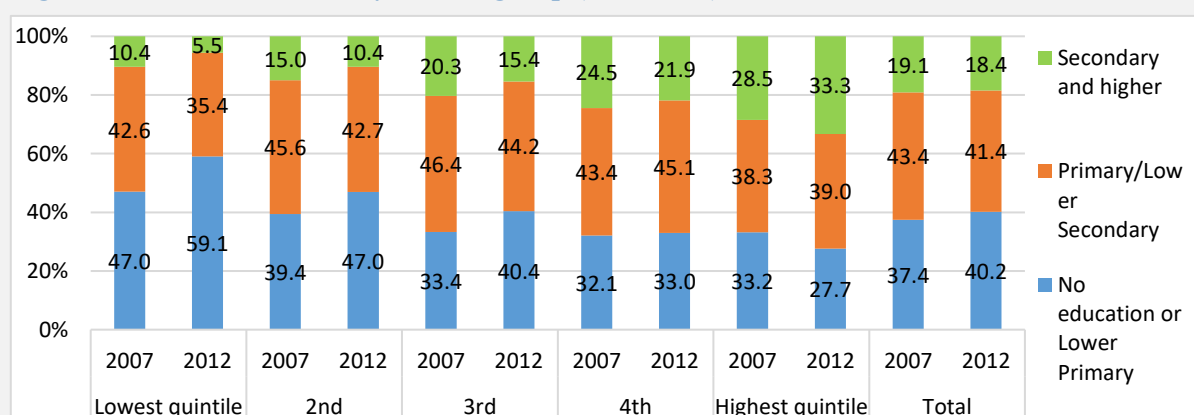
Box 2. Low education attainment in Iraq

Education is an important tool for keeping families out of poverty and children out of labour. Building human capital, generating productive employment and improving access to basic services are important for addressing poverty and unemployment. Poverty in Iraq is associated with low educational attainments, living in rural areas, large families and low participation of women in economic activities, and measures increasing access to education and the quality of educational

services would impact those factors.^{xxv} Furthermore, low levels of human capital, insecurity and poor access to basic services dampen the prospects for engaging in productive activities.

In 2012, around 40 percent of Iraqis (population 15+ age and not currently studying) had not completed primary education, 41 percent completed primary education and only 18 percent had completed secondary level education. It is also a concern to see that the share of people not-completing primary education increased from 37 percent in 2007 to 40 percent in 2012, while the corresponding share with secondary and higher education declined from 19 percent in 2007 to 18 percent in 2012.⁵ Looking at the quintiles, based on consumption expenditure, the same pattern is noticeable until the 4th quintile (Figure 14). For the highest quintile, the share of people with at least a secondary education increased, and the percentage of people with lower than primary education level decreased.

Figure 14. Education levels by income group (2007-2012)



Source: Authors' calculation based on Iraq - Household Socio-Economic Survey, IHSES 2006/2007 and 2012

Note: population 15+ age, not currently studying, and per capita consumption quintiles. "Lower primary" implies to those who have not completed primary education level. "Lower secondary" implies to those who have not completed secondary education level.

Meanwhile, education coverage increased in Iraq over the period 2007-2012. In 2007, 20 percent of Iraqis aged 15 and over never attended school while in 2012, this percentage declines to less than 18 percent.^{xxvi} Iraq is therefore facing a new issue: more people enter school, but do not finish the primary level (data on educational achievement is computed for people not currently studying), so it's not a matter of enrolment but a matter of completion.

Of the 7 million Iraqi youth, 3.4 million are out of school and 31 percent of those aged 10-29 years do not have any educational degree (UNICEF, 2017). Less than 50% of women in rural areas in the age group 15-24 years can read and write in comparison to 72-80% of the same group in urban areas.

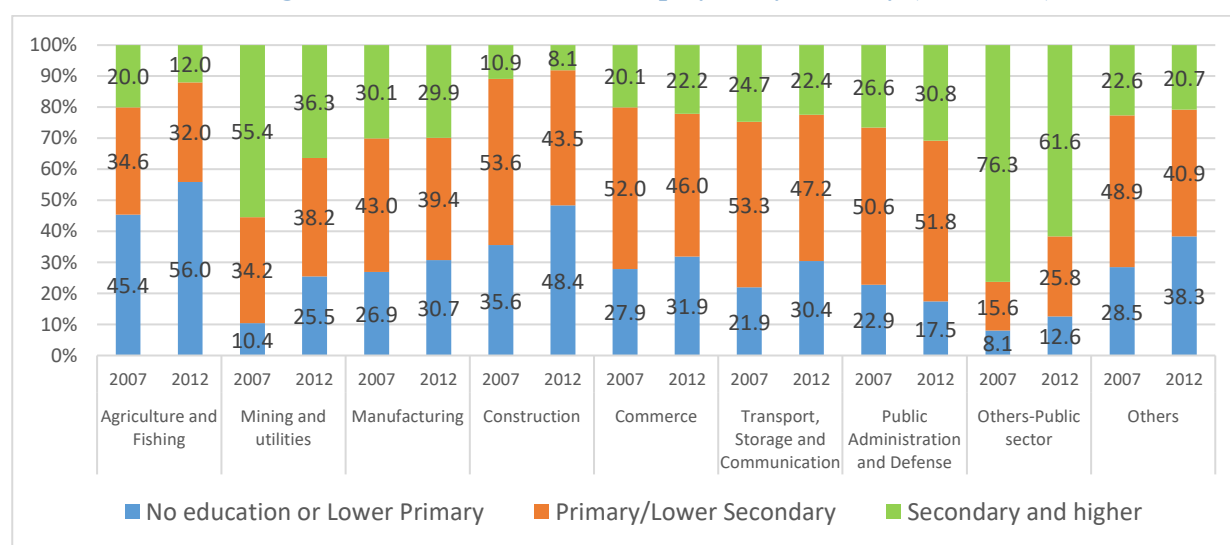
⁵ This decline in overall education levels is corroborated by World Bank statistics (based on ILOSTAT database). According to their computations, the percentage of labor force (total working-age population) with advanced education decreased from 65.02 percent to 48.46 percent between 2007 and 2012. This decline stands also for intermediate education (from 24.28 percent to 20.66 percent) and basic education (from 6.89 percent to 6.66 percent).

Almost half of the difficulties faced by youth in accessing education are related to the educational institution including inequality in educational opportunities, overloaded teachers and the lack of educational equipment and supplies.^{xxvii}

Source: Authors' based on IHSES 2007 and 2012.

Looking at education levels of employees across industries and the distribution of employees across industries in public or private sector (figure 12 and 15) reveals a clear and striking pattern: the industries showing the largest share of their employees having a secondary education or higher are also the ones with the majority of their employees working in the public sector (i.e. Mining and Utilities, Public Administration and Defense and Others from the public sector). Manufacturing sector has also a higher share of employees with secondary or higher level of education. On the contrary, industries showing the largest share of their employees not-completing primary education are the ones where employees work in majority in the private sector (i.e. Agriculture and Fishing, Construction, Commerce and Others).

Figure 15. Education level of employees by industry (2007-2012)



Note: population 15+ age, employees and not currently studying.

Source: Authors' calculation based on Iraq - Household Socio-Economic Survey, IHSES 2006/2007 and 2012

To sum, between 2007 and 2012, the share of people who did not complete primary education level increased in Iraq, and the share of people with at least completion of secondary education decreased. Looking at the quintiles, based on consumption expenditure, the same pattern is noticeable until the 4th quintile. However, the average level of education of people belonging to the highest quintile increased. The highest quintile of population comprise of a majority of employees belonging to the public sector although their share is decreasing over time. They are

more educated than those working in the private sector, and the wages are expectedly higher than that in the private sector. The industries showing the largest share of their employees having at least a secondary education are also the ones with the majority of their employees working in the public sector. On the contrary, industries showing the largest share of their employees not-completing primary education are also the ones where employees work in majority in the private sector. The pattern of output and employment across sectors shows the underdeveloped nature of the private sector and low productivity of the non-oil sectors, measured by output per worker in those sectors. The underdeveloped nature of private sector and its inability to attract higher educated people is a critical challenge for improving productivity and innovation. Lack of access to finance, complex and costly processes in property registration, inadequate power supply and infrastructure, as well as corruption are some of the major barriers for the private firms' operations.^{xxviii}

D. PUBLIC TRANSFERS BY POVERTY AND EMPLOYMENT CHARACTERISTICS

In 2012, the annual national poverty line was equal to ID 1,324,320, equivalent to aprox. \$1,0841 USD.^{xxix} The poverty line, ID 1,324 thousand, is closer to the mean per capita expenditure of the 2nd quintile, which was equal to ID 1,560,344 (Table 2). The mean consumption of individuals belonging to the lowest quintile is ID 953 thousand, which is only about 15 percent of that of the highest quintile, suggesting high inequality between the rich and the poor.

Table 2. Mean per capita expenditure by income class and national poverty line, 2012 (ID, thousands)

	2012 mean per capita expenditure
Lowest quintile	953
National poverty line	1,324
2nd	1,560
3rd	2,163
4th	3,084
Highest quintile	6,202

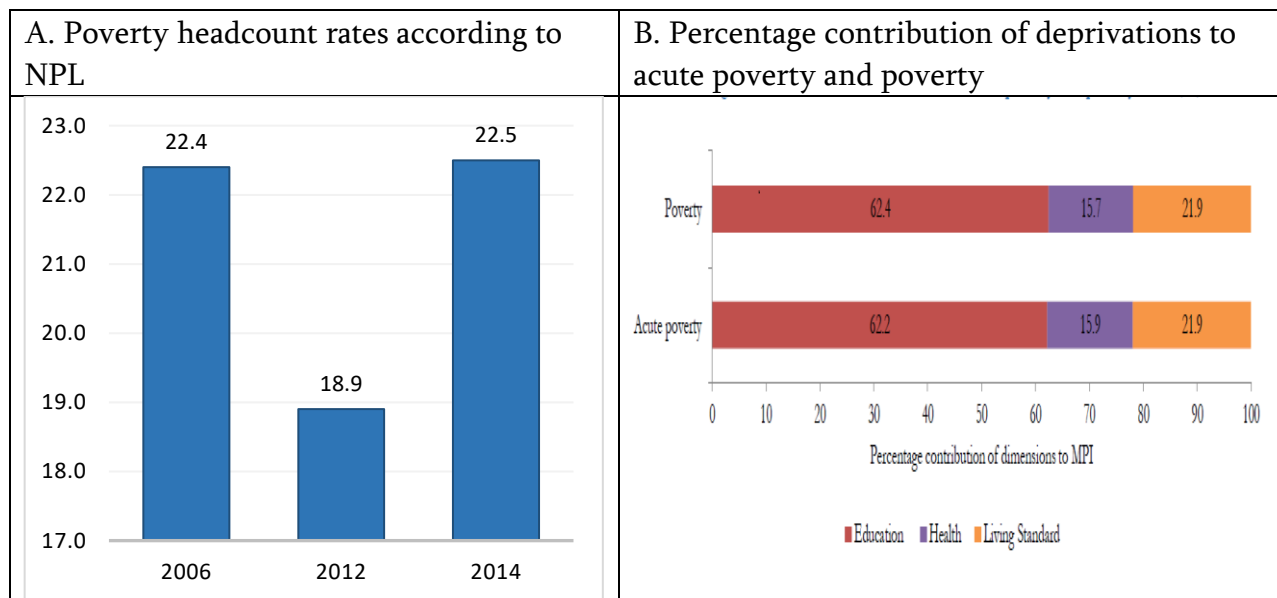
Source: Authors' calculation based on Iraq - Household Socio-Economic Survey, IHSES 2006/2007 and 2012

The poverty headcount rate, according to the national poverty line in Iraq, declined from 22.4 percent in 2006 to 18.9 percent in 2012 (Figure 16A). Poverty rate increased to 22.5 percent in 2014. The conflicts resulted in pushing up the poverty rates among displaced persons, up to 38 percent (years) and it could be higher in areas that were occupied by extremist groups.^{xxx}

In addition, the percentage of multi-dimensionally poor, measured by deprivations in health, education and living standards, in Iraq was 11.6 percent in 2011. According to a revised estimate of UNESCWA in 2017, which adjusts the thresholds of being poor by taking into account conditions in the Arab region, the multi-dimensionally poor turned out to be 45.5 percent.^{xxxi} The

deprivations in education contributes to around 62 percent of total deprivation for poverty and also an equal contributor to acute poverty (Figure 16B).^{xxxii} (Figure 16B).

Figure 16. Poverty Rates



Source: World Bank Data (2018a); UNESCWA (2018).

Reforms in the social protection system to expand coverage and fairness are some of the major challenges in Iraq for making the public transfers more effective. In Iraq, social protection is dominated by the Public Distribution System (PDS), which supports a large share of population for a minimum amount of caloric consumption. However, the program suffers from poor targeting considering that it also covers 95 percent of the non-poor and suffers from significant inefficiencies in procurement, distribution and management.^{xxxiii} The pension system coverage is low and largely it caters to employed in the public sector. The State Pension Fund, which caters to the public sector, is close to universal however the Social Security Department only covers about 3 percent of private sector workers. This means that about 5 million people out of a total labor force of 8 million are without social insurance. We relied on the IHSES 2012 to assess some more details about the public transfers and its incidence on population and households.

In Iraq, public transfers are constituted of in-cash and in-kind transfers. According to the IHSES 2012, public transfers include Emergency payments, Vocational Training Allocations, Educational Scholarships, Gifts and cash assistance from Government and In-kind aid from Government. Zakat Funds Supports are not included because for each consumption quintile, their share in public transfers received is very marginal, between 2 and 4 percent, and does not show a progressive pattern. Excluding Zakat Funds Support therefore allows us to focus specifically on public transfers without missing a significant element.

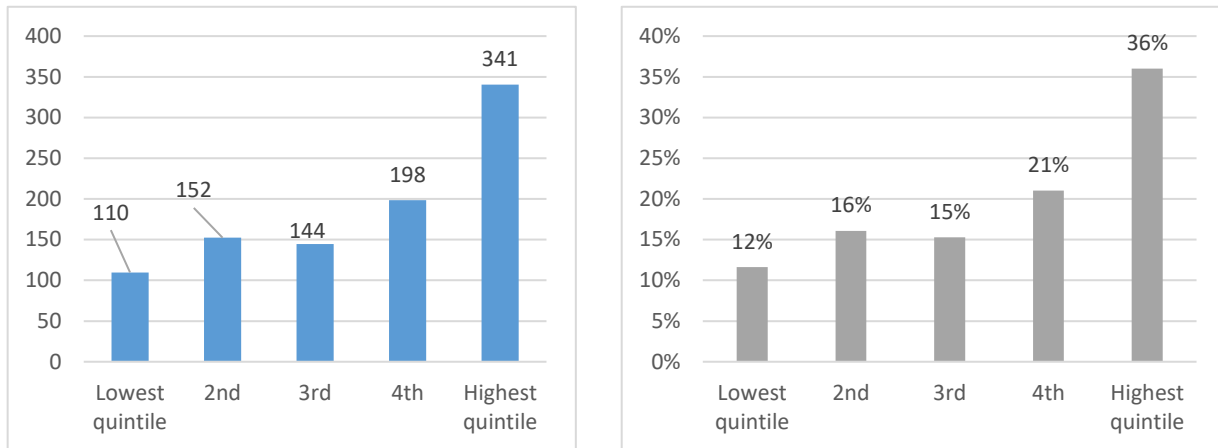
On average, public transfers tend to increase with increase in income. People belonging to the lowest quintile live in households receiving on average ID 110,000 as public transfers while

people belonging to the highest quintile live in households receiving on average ID 341,000, a 210 percent higher than the former (Figure 17A). The highest quintile receives 36 percent of total public transfers, whereas the lowest quintile receives only 12 percent of total public transfers (Figure 17B). As a result, inequality, measured by the Gini coefficient, increases from 28.6 in 2007 to 29.5 in 2012.^{xxxiv}

Figure 17. Transfers received by households across income quintiles, 2012

A. Mean transfers (ID, thousands)

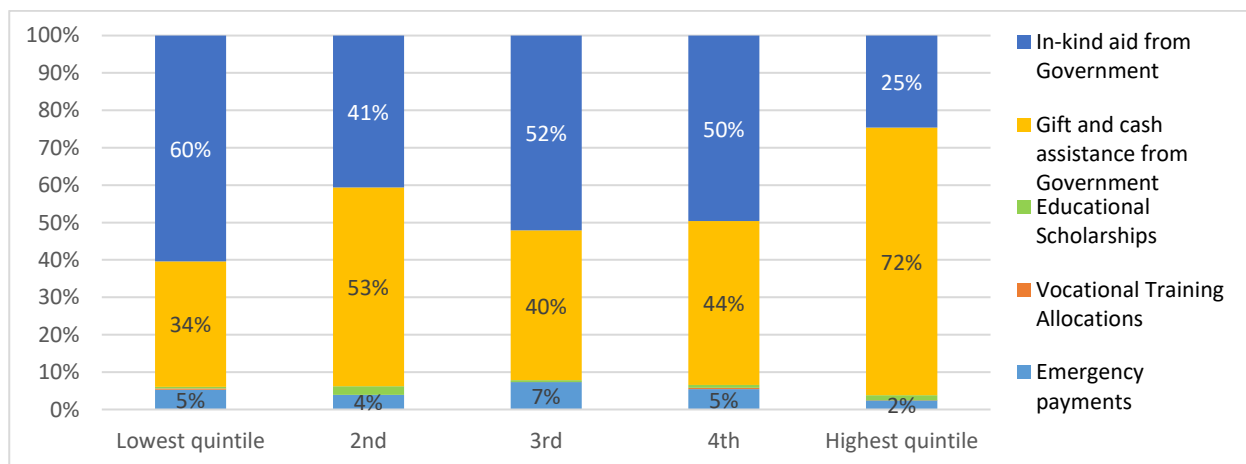
B. Share of transfers



Source: Authors' calculation based on Iraq - Household Socio-Economic Survey, IHSES 2012

This regressive pattern may be explained by the type of transfers received by each quintile. Gifts and cash assistance from Government represented 72 percent of public transfers received by the highest quintile, and only 34 percent of the lowest quintile. On the contrary, in-kind aid from Government represented 60 percent of public transfers received by the lowest quintile (Figure 18).

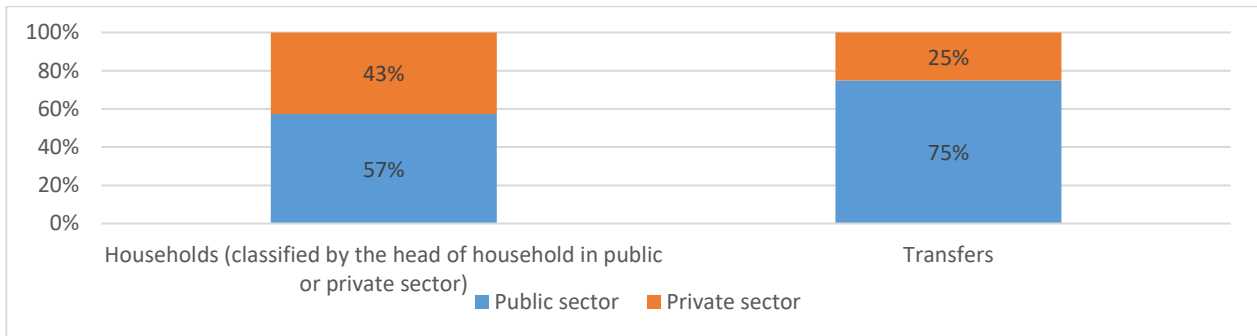
Figure 18. Type of transfers received by per capita consumption quintiles, 2012



Source: Authors' calculation based on Iraq - Household Socio-Economic Survey, IHSES 2012.

In 2012, about 75 percent of total transfers goes to households whose head works in the public sector, which constitute 57% of total households (Figure 19). Households whose head works in the private sector receive only 25 percent of total transfers whereas they constitute 43 percent of households. Hence, household heads working in the public sector tend to live in households receiving a higher amount of transfers than those working in the private sector.

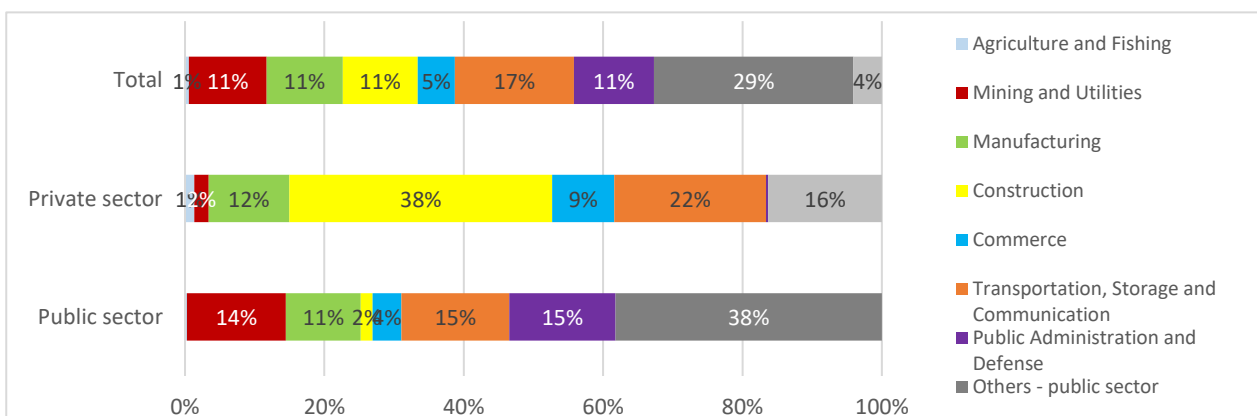
Figure 19. Share of transfers received by household type, 2012



Source: Authors' calculation based on Iraq - Household Socio-Economic Survey, IHSES 2012

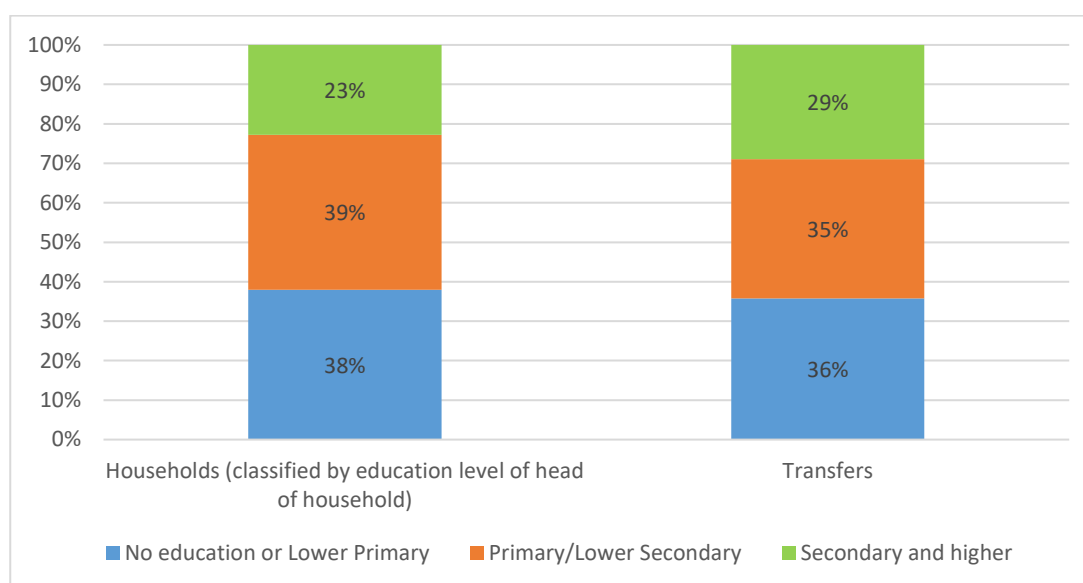
Across industrial classification, households whose head works in “others-public sector” receive the largest share of total transfers (Figure 20). They constitute 28 percent of households and receive 29 percent of total transfers. Among the households where the head of the household work in public sector, the largest share of transfers goes to “others-public sector”, followed by the public administration and defense and transportation. Among the households where the head is working in private sector, the largest share of transfers is received by those in the construction sector.

Figure 20. Share of total transfers received by households, by industry and sector of household head, 2012



Source: Authors' calculation based on Iraq - Household Socio-Economic Survey, IHSES 2012

Figure 21. Educational attainment of household heads and share of total transfers received by households, by educational attainment of household head, 2012



Source: Authors' calculation based on Iraq - Household Socio-Economic Survey, IHSES 2012

Examining the distribution of transfers across education levels, we noted that 36 percent of transfers in 2012 were directed toward households whose head has not completed primary education (Figure 21). Household heads who did not complete primary education represented 38 percent of households in 2012. Households whose head have a secondary education level or higher received 29 percent of total transfers in 2012, whereas they represented 23 percent of household heads in 2012. Hence, transfers are concentrated in the hands of the educated, at the expense of households whose head has a low education level.

Overall, the public transfers indicate a pattern that benefits the richer and the higher educated section of society more than the poor that tend to be less educated. Designing tools to better target public expenditure to the poor and the vulnerable is therefore a priority consideration to achieve poverty reduction, as per the NDP 2018-2022. A fiscal incidence tool can provide evidence-based analysis about the incidence of tax and transfers in a more detail manner to identify gaps and policy reforms.

IV. FISCAL POLICY TOWARD ECONOMIC DIVERSIFICATION AND EMPLOYMENT GENERATION: POLICY DISCUSSION

Fiscal policy has a greater role in connecting to development aims. While the short term fiscal measures are often hands on tools to boost demand in the economy and create immediate jobs, appropriate social investment and other fiscal incentives could steer the economy toward economic diversification and more productive employment generation over the medium term, as argued in the UNESCWA (2017) report *Rethinking Fiscal Policy for the Arab Region*. Given the

urgent challenges of job creation for the Iraqis, including for the higher educated youth, the solution lies in adopting immediate measures that could help generating large number of jobs, such as through undertaking reconstruction activities, public works programmes, supporting the revival of agriculture production and supporting the financial sector to enhance access to credit to the small and medium enterprises (SMEs). However, these activities should be strategized in a way that in addition to creating jobs, they create assets, infrastructure, and help developing industries that can lead to transformation of the economy in the long term. The national development plan 2018-2022 envisages the bridging between short-term stabilization measures with a long-term vision, but the realization of it requires mobilizing a sustainable flow of revenues in a well strategized macro-fiscal framework along with commitment to adhere to the measures through structural reforms, rather than just any short term programmatic intervention. In this paper, we discuss a macro-fiscal framework (Table 2) with a focus on using fiscal policy toward accelerating economic diversion and employment generation in short and medium term, which ultimately supports achieving the objectives of the national development plan 2018-2022. Prior to presenting the framework, we reflect upon historical and recent literature and country experiences on how fiscal policy influences diversification and employment generation.

A. LITERATURE AND COUNTRY EXPERIENCES

Ahluwalia (1973) argued that how fiscal policy choices can lead to different employment generation impact in different market context. Tax-subsidy policies in favor of labor-intensive products or labor, or against capital, boost employment.⁶ The market context is an important consideration in applying tax-subsidy policies. The aim of taxation policies is to reduce the profit of the industry targeted. Subsidy policies aim at increasing it. Tax subsidy policies increasing the price of the capital-intensive product aim at decreasing the demand toward it, and therefore its production compared to the labor intensive product. Hence, capital taxation can be counter-productive if the sector targeted is labor-intensive. Under the assumption that labor supply is elastic (surplus labour condition) but capital supply is not,⁷ subsidies are preferable compared to taxations. Furthermore, the effect on employment of interventions on price (tax-subsidy policies) have greater results when they are applied to all sectors. When a choice has to be made concerning the sector targeted, labor subsidies in the labor-intensive sector and capital taxation in the capital-intensive sector are preferable. In addition, if a priority sector is at stake, labor subsidy gives better results than capital taxation.

Recent studies have addressed the effects of fiscal policy on employment from two dimensions: the impact of government spending on employment; and the effect of specific tax changes and

⁶ One of the main assumption of the model is that the economy has a surplus of labor. Moreover, the labor supply is elastic and the capital supply is not. It means that the number of people willing to work increases when compensations increase, but the capital supply is fixed. It will not increase when the remuneration of capital increase, but the factor is able to move from one sector to another.

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government benefits on labor demand and supply dynamics. Tafuro (2015)^{xxxv} found that fiscal policy shocks have a persistent effect on job creation, affecting the equilibrium level of employment. According to him, spending cuts tend to have a greater impact on unemployment than tax increases. Existing studies for the US economy by Ravn and Simonelli (2007) and Monacelli et al. (2010) find that fiscal stimuli improves unemployment. Farmer and Plotnikov (2010) find similar results but argue that increased government purchases crowds out private consumption expenditure.⁸ Holden (2011) investigates the effect of government purchases on unemployment in OECD countries and finds that an increase in government purchases equal to 1 percent of GDP reduces unemployment by 0.2 percent in the same year. Kato and Miyamoto (2013) show that an increase in government spending reduces unemployment by increasing the job finding rate and reducing the separation rate. Similarly, Matsumae and Hasumi (2016) study the effect of government spending on unemployment in the Japanese economy and they find that both government consumption and investment improve unemployment through an increase in the aggregate demand. There are also other forms of fiscal interventions in the market such as subsidies that act as incentives to post vacancies, would tend to have a larger multiplier for employment generation than government spending (Campolmi et al. (2011)).

In contrast, Yuan and Li (2000) found that an increase in government expenditures reduces employment in case of the USA economy. In case of OECD countries, Brückner and Pappa (2012) showed that in most cases, an increase in government spending increases the unemployment rate. Ardagna (2007) finds that an increase in public sector employment, wages or unemployment benefits, raises the wage in the private sector and thus unemployment.^{xxxvi} Gomes (2010) argues that very high public sector wages induces too many unemployed to queue for public sector jobs, thus raising unemployment. A more recent study by Gomes (2017) adjusted to the United Kingdom, finds that setting the wage of all workers equal to those offered in the private sector reduces the unemployment rate by 1.4 percentage points.

In recent years, policies are geared toward structural reforms in labor, capital and product markets in order to create jobs, rather than fiscal reforms through increases in labour tax or corporate tax.^{xxxvii} In any case, the impact is weak if many workers are out of the tax systems. In the oil-rich countries, where taxation has a very limited role, public expenditure has a dominant position to drive non-oil economic development. Several studies⁹ suggest that a government budget expenditure has a positive effect on the growth rate of the non-oil sectors where employment generation capacity is higher than that of the capital intensive oil sector. However, the employment generation impact could be different that depends upon the type of public

⁸ There has now been enough research and policy experience to reach a clear and firm conclusion: fiscal expansion is indeed expansionary in economies like the United States today, where interest rates are near the zero bound and therefore there is little risk of crowding out private investment. Examining the 2009 Obama stimulus, David Romer (2011) concluded that the positive effects of fiscal expansion are an issue “that we should view as settled.” Blanchard and Leigh (2013) have found that fiscal multipliers in advanced economies were larger than expected during 2009 and 2010, with the result that output fell short of IMF forecasts in countries that pursued fiscal austerity.

⁹ See a study on Azerbaijan (Dehning et al. 2016; Hasanov et al 2018).

expenditures.¹⁰ While the issue is largely acknowledged by the oil-rich countries, the question remains how and what type of non-oil investment will generate more employment and lead to build higher productivity sectors.

UNESCWA (2017) report on *Rethinking Fiscal Policy for the Arab Region* advocates that fiscal policy choices can provide crucial guidance to quality investments and their optimal allocation across sectors toward boosting sustainable economic growth. Particularly at the early stage of industrial development, fiscal policy interventions are crucial to build up industrial capital, or to invest in strategic sectors where the country can have a comparative advantage, or to develop new technologies and innovations. Fiscal incentives such as export subsidies, tax incentives and access to finance, in addition to trade and industrial policy incentives, are also important means to attract private sector investments. For instance, the white paper of British Government on the new industrial strategy (2017) advocated itself as a ‘market shaper’ in supporting enterprise and entrepreneurial activity through investing in low carbon infrastructure, supporting access to finance to starting and growing firms, fostering knowledge creation and its application, developing skills and capabilities, among others. In this context, fiscal policy can act as a catalyst for public-private coordination as well.

Keeping the above experiences and studies in view and considering the immediate as well as continuous challenges that Iraq is going through, this paper discusses some concrete fiscal policy choices that could support achieving key short term objectives of employment generation along with transforming the economy toward higher value added non-oil sectors with more productive employment opportunities and a diversified revenue base in the medium to long term. A summary macro-fiscal framework is suggested in Table 3, which provides more systematic way of harnessing revenues as well as managing expenditures toward achieving different development objectives.

B. FISCAL POLICY CHOICES TO BOOST LABOUR DEMAND

Investing in strategic non-oil sectors

Supporting the growth of non-oil sectors that generate more employment opportunities and diversifying the revenue base is a prime objective of Iraq’s national development plan (NDP) 2018-2022. Time is now to identify the strategic industries to expand by increasing public investment and by encouraging private sector growth through appropriate fiscal incentives such as tax breaks or wage subsidies. As noted from the literature above, subsidies to labour has a greater impact on employment generation in labor-intensive industries than capital taxation, while the later can be strategized to investments in the oil sector so that more capital can be diverted to the non-oil sectors.

A disaggregated sub-sectoral analysis can help in identifying the higher value-added and relatively high labour intensive activities for expansion and improvisation. These industries should be conducive to the country’s latent comparative advantage. Industries can be positioned at the right stage of global value chain so they can benefit from increases in international trade

¹⁰ The long-run elasticity of non-oil employment to non-oil output is around 5 (Hasanov et al 2018).

in intermediate and semi-finished products. A recent series of policy papers on product space analysis in oil-rich and oil-poor countries in the region provides interesting insights about competitive advantage of the countries in certain products.¹¹ For instance, Egypt's product-space analysis suggests that Egypt can have higher benefits by moving away from a resource-based export basket into more complex and interconnected sectors such as chemicals and machinery.¹² For Kuwait and other oil-rich countries, chemicals, petrochemicals, machinery, and some products in the foodstuff sector can be the anchor for higher value-added industrial diversification.¹³ As Iraq's NDP targets to boost manufacturing growth, such an analysis of identifying the niche industries is an important first step. Fiscal incentives to those sectors, however, may not alone work to attract private sector unless accompanied by reforms in industrial policy, developing financial markets, and boosting the overall investment climate.

Financing reconstruction by setting priorities and improving agricultural production

The cost of reconstruction is significant, as estimated at about \$16 billion for the damage and needs assessment. The housing and education sector constitute significant part of the damage as there is need for reconstruction of 3.5 million housing units and almost half of the school buildings.^{xxxviii} It is important to prioritize the rebuilding of the housing and education infrastructure. These are crucial for long term growth and also they present opportunity for quick job creation as well as growth of local enterprises, including small and medium enterprises (SMEs). Fiscal policy can support public works programmes, which can be channelled to rehabilitate critical infrastructure such as water and road networks. In fact, the construction sector has started picking up in Iraq, and more about it could be understood from ground level latest data. The strategy should, however, consider prioritizing reconstruction in those sectors that connect to long term development goals and support growth of local firms and allied industries.

Another important source of job creation, including for females, and improving food security is the revival of agriculture sector, as targeted in the NDP 2018-2022. Investing in rural areas and agriculture is essential for boosting agricultural production as well as rural non-farm activities, as nearly 31 percent of population in Iraq reside in rural areas and the sector contributes about 20 percent of total employment. Growing food demands put enormous pressures on import bills, given low agricultural productivity and increased costs of imports due to neglected transport to access trade routes. The NDP thrusts upon both public and private investments in reviving agriculture. The strategy of reviving agriculture, however, should consider increasing productivity and its sustainability through investments in modern technologies in agriculture, such as to maximize water use efficiency, input subsidy, and fiscal incentives to agro-processing and allied activities.

¹¹ See Bustos and Yildirim, 2017a; and the growth diagnostic framework suggested by Hausmann et al., 2005.

¹² Bustos and Yildirim, 2017a.

¹³ Bustos and Yildirim, 2017b.

Credit expansion policy and wage subsidies toward promoting SMEs

Improving access to finance is an important enabler for growth of small and medium enterprises (SMEs) who constitute a large share of private sector activities in Iraq. Easing credit expansion policies, along with improving liquidity of banking system, can immediately kickstart SME financing and generally SMEs have high potential to create new jobs, particularly jobs for many relatively less skilled workers. Experiences from other countries, such as Republic of Korea, suggest that directed lending policies to certain sectors played a pivotal role in increasing production and exports. In case of Iraq, the sectors where SMEs can grow immediately are agro processing, rural non-farm activities, and reconstruction related activities. These sectors also demand relatively less skilled workers, which are abundant in the current context of Iraq. Credit expansion policies to these sectors can support high growth of local SMEs. Over time, the financial market should be developed to facilitate greater access to finance to the private sector. In addition, labour subsidies, as discussed above, can also encourage the SMEs to hire more workers.

C. FISCAL POLICY CHOICES TO BOOST LABOUR SUPPLY

Investing in improving quality of education, research and development

Creating a high quality skilled workforce through investing in quality education, human resources, scientific research and technological advances, is central to increase productivity and structural transformation. Iraq has a low research and development spending (R&D) as a percentage of GDP by international standards averaging around 0.04% in 2015, compared to a global average of 2.2 percent.^{xxxix} Iraq's stock of human capital is also quite low. According to the IHSES 2012, about 81 percent of total population, with age 15 years and above and not studying currently, have not completed secondary level of education. About 52 percent of the population have not completed primary education. Therefore, improving education of the youth, with emphasis on investing in modern technical education, are priority areas for Iraq. Over the medium term, by enhancing education and research opportunities, including for leveraging the digital technology and increasing access to information and communication technology, Iraq can ensure high quality human capital for both sectors where they have latent competitive advantages, as well as high-tech industries and services.

Investing in active labour market programmes such as training and skill upgrading, employment services

Improving education level and scientific research that can support innovation will take some time if appropriate policies are adopted today. Given the huge unemployment and low productivity challenges in Iraq at present, some immediate active labour market policies need to be considered. Fiscal policy measures can immediately support skill development of the youth and elderly, through vocational training, on the job training and other measures, which are crucial for strengthening and diversifying the skills of workforce quickly. Experiences from rest of the world

suggest that active labour market interventions are excellent support measures toward enhancing the skillset and productivity of the worker. That would improve productivity of the SMEs as well as support manufacturing growth in the medium to long term, as envisaged in the NDP 2018-2022.

D. REVENUES AND DEBT FINANCING IN A MACRO-FISCAL FRAMEWORK

Building a resilient and sustainable fiscal space is crucial for raising investments and other fiscal expansion measures. For Iraq, raising revenues from the non-oil sectors and broadening the tax base have been the top priority of fiscal reforms, and squarely emphasized in the NDP 2018-2022. In addition, this is accompanied by reforms to encourage private sector enterprises. The role of public sector enterprises seems to take a back seat, given the fiscal constraints and institutional inefficiencies. In this context, recent policy changes toward raising revenue included a flat 3.8 percent withholding tax on wages, along with decline in public investment and a freeze in expenditure in pensions and salaries. Such measures are helpful for fiscal consolidation; however, they would not lead the economy toward achieving the long term goals. For instance, a labour tax wedge may raise revenues but it would lead to rise in unemployment, as discussed in the literature. A labour tax wedge is less effective in cases where a large share of labour is working in the informal sector since they remain out of the tax net, as the case of Iraq. Furthermore, a flat tax is regressive although it may not distort the occupational choices of labour. A progressive tax needs to be considered for making the taxation system fair, whether in income tax or adopting a value added tax (VAT).^{xi} It will not only improve equity but also raise more revenues. A fiscal incidence tool can provide evidence-based analysis about the incidence of tax and transfers in a more detail manner to identify gaps and policy reforms.^{xii} Again, the decline in public investment is never at the interest of meeting short or long term development goals, especially where private sector is weak and there is hardly any prospect of increasing investments from private sector, by reducing the public sector investments, in the immediate period.

Another challenge that Iraq has been facing is that Iraq's expenditure on defense and security increased from 19.1 percent in 2016 to 22.7 percent of the total budget in 2017. Over the same period, expenditure on health declined from 4.8 percent to 3.8 percent of the total budget, expenditure on education declined from 10.3 percent to 9.3 percent of the total budget and expenditure on housing and construction remained negligible at around 1 percent. Expenditure switching, by reallocating a part of the military expenditure, is not only key to strengthening the fiscal space for building long term human capital, but it is also central to transforming the economies.^{xiii}

Nevertheless, Iraq needs greater private investment to accelerate diversification and building modern economic sectors. Empirical studies in the past have questioned the efficiency of public investment and its relationship with "crowd in" of private investment.^{xiiii} However, increasing recent evidences from developing countries suggest that the relationship between public and private investment depends on quality of institutions. While countries with weak institutions tend to diminish the positive effects of public investment, those with better institutions tend to

show significantly higher marginal productivity of public investment and “crowd in” effect of private investment, as well as more open to international trade and financial flows.^{xliiv}

Against these background, our macro-fiscal framework, which can be tailored to agreed targets and objectives, suggests setting rules for raising fiscal space in a more systematic way (Table 2). In addition, debt financing as an important instrument of fiscal expansion should also be considered in a framework of stabilizing fiscal deficit targets over a medium term.^{xliv} Macroeconomic tools in this regard can be developed keeping in view the fiscal deficit and debt financing targets that would support inclusive and sustainable growth.^{xlvi} Several GCC countries have started adopting a debt-financing strategy in recent years, particularly after 2014. Other financing instruments such as islamic finance options and use of sovereign wealth funds also need to be strategised.

Table 3. A Macro-Fiscal Framework for Policy Discussion

	Short-run	Medium/Long-run
	Fiscal measures to achieve macroeconomic stability and social stability by maintaining stable domestic demand growth and generating employment	Fiscal measures toward achieving economic diversification out of oil dependency and sustainable development and permanently improve equilibrium level of output and employment
Revenues and finances	<ul style="list-style-type: none"> • Diversify revenues through the introduction of VAT and other taxation reforms (taking into account equity) • Consider selective debt financing taking into account managing fiscal deficit targets • Harness Islamic finance options • Strategic use of SWFs (for selective counter-cyclical measures) 	<ul style="list-style-type: none"> • Revenue diversification through economic diversification out of crude oil (identify strategic industries and export diversification) • Establishment of fiscal rules and fiscal institutions toward better public finance management, including debt and SWFs, improve monitoring and transparency • Better policy coordination between monetary and fiscal authorities

Expenditures	<ul style="list-style-type: none"> • Selective counter-cyclical fiscal measures to maintain domestic demand growth, better target transfers to address poverty • Re-examination of fiscal outlays, particularly capital expenditures, and its allocation toward incentivizing more labor-intensive sectors • Other fiscal incentives toward improving labour demand and supply 	<ul style="list-style-type: none"> • Investing in strategic non-oil sectors, as above, and building quality human capital • Interest/dividend payments for the increasing debt financing • Boost investors confidence to crowd in private investments and encourage Public-Private Partnerships taking into account efficiency and inclusivity principles
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Source: Authors' narration

V. CONCLUSION

Iraq is facing significant macro-fiscal challenges since 2014. Conflicts and low oil prices have constrained fiscal space for development expenditure and negatively impacted public sector employment generation. In an era of low and unpredictable oil revenues, Iraq is looking for diversifying the economic base to boost economic growth and employment generation in a sustainable manner. It also aims to reduce poverty, which increased recently due to the adverse impact of conflicts, and improve social protection. Furthermore, the urgent need for reconstruction of infrastructure and housing and rehabilitation of agriculture are the other major development challenges at hand.

National efforts in Iraq have been geared toward addressing these challenges. However, their successful implementation relies on identifying critical drivers and application of appropriate macroeconomic and analytical tools, along with institutional reforms. In this respect, this paper focuses on the ways in which fiscal policy can connect to development aims, in particular economic diversification and employment generation, and discusses policy options and tools that could be used for evidence based analysis and reforms. It also discusses a macro-fiscal framework, which can be tailored to agreed targets and objectives, aiming at achieving sustainable economic growth and revenue diversification in a more systematic way.

We found that high unemployment rate of the youth, narrowed employment opportunity of the higher educated youth, weak private sector, low productivity of non-oil sectors and low education levels of a large share of unemployed people are some of the significant challenges of Iraq. Our analysis suggests that responding to the urgent need of increasing employment generation requires policy measures that can support both supply and demand side constraints. Role of fiscal policy is crucial.

Private sector is weak. Public sector used to absorb the higher educated youth. Given the fiscal constraints, higher remunerative public sector employment opportunities are no longer adequate to meet the growing demand. The unemployment rate among the higher educated is increasing, therefore. Improving employment prospects of the higher educated youth requires certain urgent fiscal measures that addresses the mis-match in labour demand and supply, such as through increasing access to finance, wage subsidies, as well as skill development, providing entrepreneurial and managerial skills, in addition to rethinking the way education is delivered. The analysis of education levels of all unemployed population reveals an interesting pattern. For instance, in 2012, about 68 percent of the unemployed have not completed secondary level of education. About one third of the unemployed have not completed primary level education. The industries showing the largest share of their employees not-completing primary education are also the ones where employees work in majority in the private sector. The situation would have worsened in recent years due to adverse effect of conflicts. The underdeveloped nature of private sector and its inability to attract higher educated people is a critical challenge for improving

productivity and innovation. Given this context, investing in quality education and research and active labour market intervention are crucial for improving the quality of labour supply. In addition, improving access to finance to the SMEs and agriculture as well as strategizing public works programme for reconstruction can produce immediate livelihood opportunities, including the higher educated youth. Simultaneously, investing in strategic industrial sectors is important to incentivize economic diversification and improve employment opportunities in a more sustainable manner over time.

Finally, any policy reform should be backed by evidence-based analysis and cautions about the possible pros and cons. It is possible that some of the recent fiscal reforms such as reducing public sector expenditure and employment or introducing labour tax wedge can improve fiscal sustainability in the short term but they may not be sufficient to achieving the desired long term development objectives. Rather, that may further complicate the development challenges since private sector is weak in Iraq and the prospect of increasing investments from private sector by reducing the importance of public sector is bleak. Time is now to assess different policy options and evidence-based analytical tools for making appropriate choices.

Bibliography

- Ahluwalia, M. (1973). Taxes, subsidies, and employment (English). *The Quarterly Journal of Economics*, vol. LXXXVIII, pp. 393-409. Available from <http://documents.worldbank.org/curated/en/456891468173967432/Taxes-subsidies-and-employment>.
- Bhanumurthy, N R, and Sarangi, N. (2019). A Fiscal-Monetary Interaction Model for Inclusive Growth in the Middle-Income Arab Countries: Application to Egypt's Economy. ESCWA Working Paper (forthcoming).
- Celiku, B., Maseeh, A. N., and Sharma, D. (2018). Iraq Economic Monitor: Toward Reconstruction, Economic Recovery and Fostering Social Cohesion (Arabic, English). Washington, D.C.: World Bank. Available from <http://documents.worldbank.org/curated/en/980021539372476570/Iraq-Economic-Monitor-Toward-Reconstruction-Economic-Recovery-and-Fostering-Social-Cohesion>.
- Dabidian, H., and Stone, A. (2012). Private sector development in Iraq: an investment climate reform agenda (English). MENA knowledge and learning quick notes series, No. 74. Washington DC: World Bank. Available from <http://documents.worldbank.org/curated/en/869291468261278001/Private-sector-development-in-Iraq-an-investment-climate-reform-agenda>.
- Deloitte (undated). Oil and Gas Taxation in Iraq. Available from <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Energy-and-Resources/gx-er-iraq-oil-gas.pdf>.
- Government of Iraq (2017). Strategy for the Reduction of Poverty in Iraq, 2018–2022. Available from <https://mop.gov.iq/en/static/uploads/1/pdf/15192838546d2344468c97dc099300d987509ebf27--Summary.pdf>.
- Hasanov, F., Mammadov, F., and Al-Musehel, N. (2018). The Effects of Fiscal Policy on Non-Oil Economic Growth. *Economies*, vol. 6, No. 2 (2018), pp. 27. Available from <https://www.mdpi.com/2227-7099/6/2/27/pdf-vor>.
- IMF (2012). Fiscal Policy and Employment in Advanced and Emerging Economies. Available from https://www.imf.org/~media/Websites/IMF/imported-full-text-pdf/external/np/pp/eng/2012/_061512.ashx.
- IMF (2016). Economic Diversification in Oil-Exporting Arab Countries. Available from <https://www.imf.org/external/np/pp/eng/2016/042916.pdf>.
- IMF (2017a). Iraq: 2017 Article IV Consultation. Staff Report. IMF Country Report No. 17/251. Washington, D.C.: IMF. Available from <https://www.imf.org/~media/Files/Publications/CR/2017/cr17251.ashx>.
- IMF (2017b). Iraq: Selected Issues. IMF Country Report No. 13/218. Available from <https://www.imf.org/external/pubs/ft/scr/2013/cr13218.pdf>.
- IMF (2017c). Regional Economic Outlook Update: Middle East and Central Asia. Available from <https://www.imf.org/en/Publications/REO/MECA/Issues/2018/04/24/mreo0518>.
- OAMDI (2016). Harmonized Household Income and Expenditure Surveys (HHIES), <http://erf.org.eg/data-portal/>. Version 2.0 of Licensed Data Files; IHSES 2012- Central Organization for Statistics (COS). Egypt: Economic Research Forum (ERF).

- OAMDI (2016). Harmonized Household Income and Expenditure Surveys (HHIES), <http://erf.org.eg/data-portal/>. Version 2.0 of Licensed Data Files; IHSES 2006/2007- Central Organization for Statistics and Information Technology (COSIT). Egypt: Economic Research Forum (ERF).
- OPHI (2017). OPHI Country Briefing 2017: Iraq - Data for All. Available from http://www.dataforall.org/dashboard/ophi/index.php/mpii/download_brief_files/IRQ.
- Sarangi, N., and J. von Bonin (2017). Fiscal policy on public social spending and human development in Arab countries. Working Paper, E/ESCWA/EDID/2017.WP.13. Beirut: ESCWA.
- Sarangi, N., and L. El-Ahmadieh (2017). Fiscal policy response to debt in the Arab region. Working Paper, E/ESCWA/EDID/2017/WP.6. Beirut: ESCWA.
- Sarangi, N., N. R. Bhanumurthy, and K. Abu-Ismael (2015). Effectiveness of fiscal policy in Jordan: impact on growth, poverty and inequality. Working Paper, E/ESCWA/EDID/2015/WP.8. Beirut: ESCWA.
- Tafuro, A. (2015). The Effects of Fiscal Policy on Employment: an Analysis of the Aggregate Evidence. University Ca' Foscari of Venice, Dept. of Economics Research Paper Series No. 03/WP/2015. Available at SSRN: <https://ssrn.com/abstract=2563667> or <http://dx.doi.org/10.2139/ssrn.2563667>.
- Tamirisa, N. T., and Duenwald, C. (2018). Public Wage Bills in the Middle East and Central Asia. IMF. Available from <https://www.imf.org/~media/Files/Publications/DP/2018/45535-mcddp-public-wage-bills.ashx>.
- UNAMI Iraq (2018). Iraq's Fiscal and Economic Situation: ISIL Crisis and the Sharp Drop in Oil Revenue as Catalysts of Economic and Financial Reform. Available from http://www.uniraq.org/index.php?option=com_k2&view=item&task=download&id=1584_cd509c5331f7ae8f8303f24c44c33336.
- UNDAF (undated). United Nations Development Assistance Framework. Iraq 2015-2019. The development strategy of the national authorities and people of Iraq and the Agencies, Funds and Programmes of the United Nations System. Available from https://www.unicef.org/about/execboard/files/DPDCPIRQ2_UNDAF_-_Iraq.pdf.
- UNDP (2014). Iraq, Human Development Report 2014. Iraqi youth, challenges and opportunities. UNDP. Available from http://hdr.undp.org/sites/default/files/undp-iq_iraqhdr2014-english.pdf.
- UN ESCWA (2017). Rethinking Fiscal Policy for the Arab Region. E/ESCWA/EDID/2017/4, Beirut: ESCWA
- UNICEF (2017). The Cost and Benefits of Education in Iraq: An analysis of the education sector and strategies to maximize the benefits of education. Available from https://reliefweb.int/sites/reliefweb.int/files/resources/UN064587_Costs_of_EDU.pdf.
- World Bank (2009). Concept note for pension reform implementation support technical assistance: improving old-age income security in Iraq (English). Washington, DC: World Bank.
- World Bank (2017). Iraq - Systematic Country Diagnostic (English). Washington, D.C.: World Bank. Available from <http://documents.worldbank.org/curated/en/542811487277729890/Iraq-Systematic-Country-Diagnostic>.
- World Bank (2018a). Iraq Economic Monitor, Spring 2018: From War to Reconstruction and Economic Recovery. Washington, D.C.: World Bank. Available from <https://openknowledge.worldbank.org/handle/10986/29688> License: CC BY 3.0 IGO.

World Bank (2018b). Iraq Reconstruction and Investment: Damage and Needs Assessment of Affected Governorates. Washington D.C.: World Bank. Available from <https://openknowledge.worldbank.org/handle/10986/29438> License: CC BY 3.0 IGO.

World Bank (2018c). World Development Indicators

World Bank (undated). Poverty Estimates and Trends in Iraq; 2007-2012. Washington, D.C.: World Bank. Available from <http://microdata.worldbank.org/index.php/catalog/2334/download/34771>.

Endnotes

- ⁱ World Bank (2018a)
- ⁱⁱ IMF (2017)
- ⁱⁱⁱ World Bank (2018a)
- ^{iv} World Bank (2018a)
- ^v IMF (2017a)
- ^{vi} IMF (2017a)
- ^{vii} World Bank (2018a)
- ^{viii} World Bank (2018a)
- ^{ix} World Bank (2017)
- ^x IMF (2017b)
- ^{xi} Celiku, B., Maseeh, A. N. and Sharma, D. (2018).
- ^{xii} IMF (2016)
- ^{xiii} World Bank (2018a)
- ^{xiv} World Bank (2018a)
- ^{xv} *ibid*
- ^{xvi} World Bank (2018a)
- ^{xvii} World Bank (2018a)
- ^{xviii} ILO 2018.
- ^{xix} World Bank (2018a).
- ^{xx} Iraq, Household Socio-Economic Survey, IHSES 2006/2007 and 2012
- ^{xxi} Celiku, B., Maseeh, A. N. and Sharma, D. (2018).
- ^{xxii} Tamirisa, N. T. and Duenwald, C. (2018)
- ^{xxiii} UNDP (2014)
- ^{xxiv} World Bank (2009)
- ^{xxv} Government of Iraq (2017)
- ^{xxvi} Figures from 2007 and 2012 surveys, authors' computations.
- ^{xxvii} UNDAF (undated)
- ^{xxviii} Dabidian, H. and Stone, A. (2012)
- ^{xxix} World Bank (undated). The USD figure is arrived taking an average annual exchange rate for 2012.
- ^{xxx} Government of Iraq (2017)
- ^{xxxi} OPHI (2017)
- ^{xxxii} UNESCWA (2018)
- ^{xxxiii} World Bank (2018a)
- ^{xxxiv} World Bank 2018 (POVCAL)
- ^{xxxv} Tafuro, A. (2015)
- ^{xxxvi} Also see Finn (1998), Cavallo (2005) and Pappa (2009).
- ^{xxxvii} IMF (2012)
- ^{xxxviii} World Bank 2018a.
- ^{xxxix} [World Bank \(2018c\)](#).
- ^{xl} UNESCWA (2017).
- ^{xli} Sarangi et al 2016.
- ^{xlii} UNESCWA, 2013.
- ^{xliii} Devarajan et al., 1996; and Sala-i-Martin and Artadi, 2003.
- ^{xliv} Cavallo and Daude (2011).
- ^{xlv} Sarangi and El-Ahmadieh (2017).
- ^{xlvi} Bhanumurthy and Sarangi (2018).