

Disparities in Regional Incomes and Spending: Spatial economic interdependence in Iraq¹

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I. Introduction

Present-day division of Iraq into, more or less, three seemingly separate parts (Kurdistan plus Kirkuk, Baghdad-to-Basra, and the 'Upper Middle'; *Nenawa, Salahuldin, Diala, and Anbar*) hides long-enduring economic/financial interdependence. The financial interdependence shows in the fact that oil-producing governorates have been increasingly 'financing' (through the central budget) the deficit between spending and locally generated income of all other governorates. Accordingly, regional spending (consumption and investment) is hardly related to locally generated income. Furthermore, observed regional distribution of per capita consumption, a major component of spending, is quite unequal. In particular, Kurdistan enjoys the highest level; well above the national average. At the other end, most southern (including oil producing) and some Upper Middle governorates are below the average.

A confluence of factors has contributed to these outcomes. The following three are of importance; one of a long-term nature and another two that assumed added importance since 2003. First, decades-long near-total dependence on oil revenues in financing the central budget (and balance of payments) had fed into, and at the same time reinforced by, a declining share of agriculture and manufacturing in GDP. Secondly, institutional/political arrangements and worsening security situation after 2003 had resulted in two skewed regional distributions: (ii.1) development of oil/gas resources has concentrated in the 'south' and 'north' of the country to the virtual exclusion of the Upper Middle, thus contributing further to its financial and political dependence on the central budget and, hence, sense of marginalization, (ii.2) there are indications that present central budgeting of regional allocations is responsible for part of the disparities in regional distribution of per capita consumption.

Disparities in regional oil development and standards of livings, lack of coherent economic policies, and current political differences are interacting to feed into the ongoing social, political, and armed conflicts. The situation deteriorated further after the terrorist attack of DAISH (ISIS), in June 2014, and its control of parts of the Upper Middle. Furthermore, since the beginning of August 2015, repeated popular protests in Baghdad, the south, and middle Euphrates, against inadequate public services, electric

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power cuts, widespread corruption, unemployment, and the sectarian/religious base of politics and public administration, have complicated and deepened the crisis. Resolution of these conflicts/crises depends on reaching a universal political and social 'contract' between the main adversaries, in the ongoing conflict, and is, therefore, beyond the scope of this paper. However, looking into schemes of decentralization and better oil revenue-sharing (through federal budgetary allocation), attempted in this paper, may be useful on the way to facilitate a social/political compromise and hopefully a kind of social contract. They could also rectify some regional spending disparities.

II. Regional GDPs and spending

In addition to available socio-economic surveys as sources of data on regional consumption and incomes, a rudimentary attempt is made in this paper to estimate provisional figures for regional GDP and spending (consumption and investment) according to the governorates. The two detailed tables of this attempt together with notes on estimation steps and data sources are presented in Appendix (1).

II.1 Regional per capita private consumption

Household socio-economic surveys for 2007 and 2012 provide fairly detailed pictures of regional consumption and incomes. The year 2012 assumes an importance due to the fact that it was the most 'normal' after the regime change in 2003. From 2004/2005 to 2009 Iraq was enmeshed in armed conflict. After the defeat of armed groups and militias, the years 2009-2012 were characterised by relatively low violence and generally high level of economic activity. Since 2013, however, the conflict escalated only to assume new dimension of severity after DAISH attacks.

Distributions of per capita private consumption among governorates, derived from the two surveys, indicate clear regional disparities. The average for the highest consuming fifth (quintile) of governorates was 2.44 times its level for the lowest fifth, in 2012. Furthermore, inequality increased between 2007 and 2012. The ratio of the highest to lowest fifths increased from 2.15 to 2.44 (and *GINI* coefficient from 0.165 to 0.173); Table (1).² In particular, the Kurdish region comes on top in both years. Its per capita private consumption is almost twice as much as the national average. Baghdad's per capita consumption equals the national average in both years. Most other governorates are below the average. As a matter of fact, the mean for the southern oil producing governorates is only three quarters of the national average. In particular, Misan, a growing oil producing/exporting province, is at the bottom of the list in 2012.

 $^{^2}$ To calculate *GINI* coefficient and ratio of highest to lowest quintiles (fifths), the governorates are ordered according to ascending values of their per capita private consumption, together with their corresponding population. Within this ordering the governorates are divided into five groups; each one contains fifth of total population. The ratio of highest to lowest quintiles is the ratio of per capita consumption of the fifth group to that of the first. Due to the fact that each fifth of total population does not fall within exclusive integer number of governorates, each group (apart from the first) shares a common governorate with the preceding one.

Governorate	2007	2012
Sulaymania	3,568	5,554
Erbil	3,517	5,483
Duhok	2,674	4,610
Kirkuk	1,736	3,458
Najaf	1,630	3,060
Baghdad	1,782	2,969
Salahuldin	1,242	2,813
Babil	1,342	2,790
Diala	1,352	2,624
Karbala	1,325	2,617
Basra	1,441	2,581
Anbar	1,446	2,580
Wasit	1,408	2,557
Nenawa	1,488	2,099
Thiqar	1,310	1,996
Qadisiya	1,393	1,829
Muthana	1,188	1,753
Misan	1,368	1,682
IRAQ	1,750	2,969
Inequality Measures:		
GINI Coefficient	0.165	0.173
Highest to Lowest Quintiles	2.15	2.44

Table (1) Per Capita Private Consumption
ID Thousand/Person

II.2 Output and total spending

Let us find out whether total, and hence per capita, private consumption in each governorate is supported by locally generated incomes (GDPs) in the governorate. This is carried out by comparing regional total spending (including private/public consumption and private/public investment) to regional value added; Table (2). It is clear from the table that apart from a handful of oil-producing/exporting governorates, all other governorates 'live beyond their means'. Accordingly, as indicated by low correlation coefficient (0.28), regional spending is hardly related to locally generated income. The most profligate of the governorates is Baghdad, the centre of executive, legislative, and judicial powers. In 2012 it spent about twice as much as it produced (i. e., its GDP). Apart from Basra/Misan/Wasit, the southern governorates spent about 89% more than their GDPs, followed by the Upper Middle (82%), and Kurdistan (56%). By contrast, oil producing governorates (excluding Kurdistan) spent only 23% of their GDPs; 22% for Basra/Misan/Wasit and 32% for Kirkuk. Regional saving mirrors a similar picture; with the over-spenders realising negative saving and the under-spenders positive saving.

A question arises, therefore, about the fundamental factors behind these patterns of regional spending and incomes. This is taken up in the following section.

Sources and Note: see Appendix (2). ID: Iraqi Dinars.

		GD	P and Sper	nding		Saving					
	Popul ation	GDP at	Spending	Spending	Domostia	Net Tra	Cross				
	'000	market prices	at market prices	to GDP %	Saving	Net Income	Net Unrequited Transfers	Saving			
Kurdistan Regional Government, KRG	4,748	24.0	37.5	156	-9.4	0.1	-0.7	-10.0			
Kirkuk	1,433	23.7	7.7	32	17.4	0.1	-0.7	16.9			
Upper Middle	7,872	19.0	34.6	182	-8.4	0.1	-0.5	-8.8			
Baghdad	7,255	19.1	37.0	193	-11.3	0.1	-0.5	-11.8			
Basra/Misan/Wasit	4,840	111.5	24.1	22	94.7	0.6	-3.1	92.3			
Rest of governorates South of Baghdad	8,060	19.5	36.8	189	-9.6	0.1	-0.5	-10.0			
Iraq	34,207	216.8	177.6	82	73.4	1.2	-6.0	68.6			
Correlation coe	fficient:										

Table (2) Regional GDPs, Spending, and Saving: 2012Values in ID Trillion

Sources and Notes: see Appendix (2).

III. Influencing factors

Regional differences between spending and locally generated incomes, regional disparities in per capita consumption, and their association with the near-total dependence on oil, are the result of a confluence of many factors. The following three are of importance; one of a long-term nature and another two that assumed added importance since 2003.

III.1 Evolution of the economic structure

In contrast to the, largely, privately led development in agriculture and industry in the first half of the twentieth century (Hasan, 1965) growing oil revenues, since the beginning of 1950s, gradually expanded the domain of the state; first, through extensive investment in the infrastructure, up to 1958, then increasingly through public investment in the commodity/service sectors, afterwards, Merza (2013a). Notwithstanding the 1964 nationalizations of a group of privately owned industries, banks, etc., the expansion of the domain of the public sector, between 1958 and 1968/70 was constrained by limitations on oil production (exercised by the foreign oil companies, Yergin, 2009), and hence revenues.

The nationalization of *Iraq Petroleum Company*, *IPC*, (then, the sole operator), during 1972-1975 and the increase in oil prices in the international market, thereafter, lifted major constraints on oil production and revenues.³ The 'socialist' element in the

³ IPC"s operations in the north and south of Iraq were carried out by *Mosul Petroleum Company*, *MPC*, and *Basra Petroleum Company*, BPC, respectively. In June 1972 only MPC was nationalized. The American, Dutch, and

ideology of the ruling Baath party, which had ascended to power in 1968, on the one hand, and need to find employment to increasing numbers in the labour market, on the other, entailed the expansion of the public sector, especially in civil service. Although continued to be sizable, the private sector was constrained by 'socialist' practices and war/conflict conditions and, therefore, became increasingly dependent on the public sector. Developments from 1968/1970 up to the present have, generally, resulted in long-term stagnation, then decline, in the share of agriculture and manufacturing in GDP (i.e., stagnation/decline in economic diversification).

In the following we describe the trends in the evolution of the economy's productive structure during three sub-periods extending from 1968 to 2014, which have turned it into a rentier economy. The length of the time span is dictated by available data series on sectoral GDP. The evolution is also depicted in Figures (1) and (2), below.

1968-1980: consequent on rising oil revenues, 1970/75 and 1976/80 ('explosive') development plans presented ambitious programmes to transform Iraq into an 'industrial' country, Merza (2011b). Public investment was spread across all sectors. Therefore, investment surged. Measured in constant prices, it grew by 20.2% annually between 1968/70 and 1980. GDP rate of growth amounted to 10.3% annually in the same period. In particular, that of the manufacturing sector was the highest; at 21.9%; Tables (A3), (A4) in Appendix (1). Consequently, the share of manufacturing in GDP increased from 1.1% in 1968/72 to 4.1% in 1976/80 (measured in constant prices). As for agriculture, differential incomes in favour of other sectors motivated migration of labour to the urban centres; thus creating labour shortages. Together with institutional and weather conditions, this influenced negatively its value added growth causing it to fall below that of GDP. Therefore, in spite of the high growth in manufacturing, its combined share with agriculture (i.e., non-oil commodity sectors) declined from 32% in 1968/72 to 20% in 1976/1980. Because of the higher increase of prices of the services and oil sectors relative to the non-oil commodity sectors, the combined share of the latter is lower when measured in current prices: 20% in 1968/72, and 12% in 1976/80. This indicates well an important problem that faced the non-oil commodity sectors, the output of which is largely geared to the domestic market. Despite concerted public policy to increase their share in GDP, domestic valuation (i. e., in current prices), on the one hand, and low competitiveness abroad, on the other, constrained their combined growth, and hence share in GDP. Compare Figures (1) and (2), and Table (A3), Appendix (2) and noting in particular, that the high growth of manufacturing, mainly due to import substitution, would have had slowed down, eventually, due to limited growth in domestic market.⁴

Gulbenkian's shares in BPC were nationalised late 1973 whereas those of the British and French (the remaining shareholders) in December 1975. By March 1979, all ensuing disputes with the shareholders were finally settled; Kaddori (2006), Yergin (2009).

⁴ Besides social and political influences, two economic factors generally affect the growth of non-oil commodity sectors and, hence, their shares in GDP, in rentier states. First, higher relative demand (and consequently higher

1980-2002: Two decades of wars, social upheavals, constrained oil exports, and international economic sanctions, all resulted in the abandonment of preparing medium/long term frameworks for economic policies and planning; Merza (2011b). Investment plummeted drastically; it declined by 16.3% annually between 1980 and 1997; Table (A4). Nevertheless, lack of enough foreign exchange (for imports) motivated efforts to enhance the utilization of industrial capacity and intensify agricultural production, which resulted in generally maintaining a higher share of non-oil commodity sector in GDP (in constant prices, Figure 1) in 1981-1996/97 than in 1976/80. Between 1991 and 1996/97, however, such efforts were more successful in agriculture than in industry.⁵ But, when foreign exchange increased sharply after the implementation of UN-oil-for-food programme in 1997, paradoxically the share of the commodity sectors (especially manufacturing) started, after this year, to decline fairly fast. This was due to the fact that after years of constrained imports, higher oil revenues resulted in higher demand for imports than for domestically produced goods.⁶

2003-2014: Apart from the energy/petroleum sector, and in spite of a glut of policy documents stressing the vital role of growth-friendly environment for the private sector, no clear direction of coherent economic/development policy can be identified after 2003, Merza (2011b, 2013b, 2015). Growing oil revenues and consequent surge in public expenditures coupled with open door policy (mainly, demolishing quantitative protection, and instating instead, very low import tariffs) resulted in high demand for imports at the expense of domestic production. Together with power/water shortages and growing insecurity/uncertainty on the supply side, this contributed to negative growth in agriculture and below GDP growth in manufacturing. Consequently, their combined share in GDP declined from 16% in 1998/2002 to 10% in 2010/14 (compared

relative prices and wage rates) for non-tradables motivate resources (capital and labour) to shift from tradables to non-tradables. Although quantitative protection and public policy and investment programmes could weaken or postpone such shift, as they effectively did in Iraq during 1968-80, it persists due to limited growth in domestic demand. Secondly, overvalued real exchange rate of non-oil exportables/tradables renders them less competitive in international markets (*Dutch Disease*). Sachs & Andrew (1995), Isham, *et. al* (2002), Merza (2013a). It has been suggested further that in addition to absence of stabilization fund/policies, volatility in oil revenues, through its effect on uncertainty, leads to lower investment and hence lower total factor productivity (*TFP*) in the non-oil commodity sectors, which in turn affect negatively economic diversification; Arezki & Nabil (2012), Cavalcanti, *et. al.* (2012). However, between 1968/72 and 1980 Iraq's oil revenues were on the rise (see OPEC's Annual Statistical Bulletin 2005, P.15). Volatility, therefore, could not have played an important role in affecting economic diversification (i.e. non-oil commodity sectors' shares in GDP) in that period. Afterward, however, volatility became the norm; Merza (2015).

 $^{^{5}}$ The drastic fall of crude oil output (within mining, construction & E/W) during 1980-89/1991-96 must have reduced its share in GDP to the benefit of the other sectors. Over the indicated sub-periods, however, the performance of these other sectors was the main determinant of their shares. Table (A3), Appendix (1).

⁶ It is not clear whether manufacturing value added during 1980-2002 includes 33 military industrial enterprises that sprung up in the 1980s (under the auspices of *Military Industrial Commission*). According to one source, they have employed, then, 47 thousands (Hasoon, 2015). Compare this figure to only six thousands employed in public establishments, in 1987, in basic metals, machinery, electric & transport equipment etc.; which is presumably the domain of the military enterprises. The latter figure is reported in CSO (1990, PP 140-142) as part of total employment of 116 thousands in large public establishments in 1987. Anyway, as they were not geared for exports, their activities have neither lessened dependence on oil revenues nor affected the rentier nature of the economy. On the contrary, they were, largely, a drain on foreign exchange earnings.

to 32% in 1968/72). In current prices, it declined from 8% to 7%. Destruction of industrial infrastructure and organizational chaos, which followed 2003's invasion (Chandrasekaran, 2006) had contributed a great deal to this outcome.



Figure (2) Shares of Sectoral Value Added in GDP, *Current Prices* Note: to show 'trends' of sectoral shares, both figures are based on 5-year moving averages calculated from Table (A3), Appendix (1).

III.2 Oil and gas: skewed regional development

A second factor which played an important part in the current pattern of skewed financial regional inter-dependence pertains to regional oil/gas developments, especially those since 2003. In spite of the fact that, together with Kurdistan oil/gas programme, the 'oil licensing rounds' of 2009-2012, and the *2012-2030 Integrated National Energy Strategy* cover, more or less, all of Iraq, in reality oil/gas developments were concentrated in two areas. The first extends from the south of Baghdad to Basra; the second includes Kurdistan. Continuation of this skewed development, which has

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been gaining pace in 2015, could have serious consequences. First, developing two potentially economically independent regions in the north and south, and second, increasing the sense of marginalization in the Upper Middle part of the country. Merza (2013a, 2013b, 2015).

In Kurdistan, oil/gas development and exploration started slowly after 1991, during which time the region was virtually independent from central authority. After 2003, oil/gas activities gained stronger momentum. Kurdistan Regional Government, KRG, entered into about 50 production-sharing agreements (PSAs) for development and exploration. At the end of 2012, proved oil reserves were estimated at 8.9 billion barrels. Production capacity amounted to 438 thousand barrels daily, *TBD*, in 2014 and is expected to reach 630-835 TBD in 2015, IOD (2014). The Kurdish export pipeline to the northern border with Turkey started pumping oil in the beginning of 2014; first to export KRG oil and, in January 2015, to also export Kirkuk oil (according to agreement with the central government). By June 2015 its capacity rose to about 600 TBD; KMNR (2015).

The rehabilitation/expansion of production capacity and infrastructure in the southern oilfields (Basra, Misan, Wasit, and Thiqar) proceeded well, albeit with intermittent interruptions. Production capacity reached about 4 million barrels daily, *MBD*, and export loading capacity, of the three southern ports, 5 MBD, in 2014. However, although growing fairly fast, due to bottlenecks in oilfields, storage, pipelines, and in loading ports/terminals, actual production (and export) did not keep pace with capacity. At the time when capacity increased by more than 2 MD between 2009 and 2014 production increased by less than1.2 MBD; from about 1.7 MBD to 2.9 MBD; Table (3). Nevertheless, efforts to overcome bottlenecks led to tangible increases in production in 2015. In the first seven months, actual production from Basra/Misan/Thiqar alone increased by about 315 TBD from its level in the same period in 2014; Ministry of Oil's, *MoO*, website http://www.oil.gov.iq/.⁷

By contrast, the execution of contracts for the development and exploration of oil/gas fields, included in the third and fourth oil licensing rounds, relating to the Upper Middle, had faced serious delays, then virtual stoppage. The delays had further extended to the rehabilitation and capacity expansion of Kirkuk-Ceyhan pipeline. Due to sabotage, exports through this pipeline stopped since March 2014. The plans to rehabilitate and expand the south-north *strategic pipeline* and the pipeline through Syria had also been suspended, so had work on Haditha-Aqaba new pipeline. Consequently,

⁷ 'Iraq's production rose to a record 4.1 MBD in June [2015], with heavy/sulfur crude from the southern fields accounting for much of the recent gains'; WB (2015a, P. 23). As for natural gas, due to delays in completing gas exploitation projects (including the *Basra Gas Company*) the best part of produced gas is still being flared at the same time when plans were made to import it from Iran. Daily flaring of gas in Basra/Misan/Thiqar oilfields amounted to 1,153 million cubic feet, *MCF* in 2014 and 1,263 MCF in the first seven months of 2015 (about 74% of produced associated gas), MoO's website. The *Basra Gas Company* is planned to utilise 2,000 MCF; Merza (2012).

besides lower oil-related economic activities, production capacity and actual production of crude oil and gas in the Upper Middle fell short of its potentials. At the time when crude oil proved reserves in this region makes about 6.1% of total Iraq, its production capacity and actual production were only 1.4% and 1.1%, respectively, in 2014. For gas, the corresponding figures were 8.8% for reserves, and 1.6%, 1.3%, for production capacity and production, respectively, Table (3).

		Crude Oil		Natural Gas						
	Production CapacityProductionProv Reser (Begin of Ye		Proved Reserves (Beginning of Year)	Production Capacity	Production	Proved Reserves (Beginning of Year)				
	TBD	TBD	Billion Barrels	MCFD	MCFD	Trillion CF				
The South	4,043	2,866	110.1	2,431	1,711	72.4				
Basra	3,220	2,510	96.6	1,893	1,476	63.3				
The rest (Producers: Misan, Wasit, Thiqar)	823	356	13.5	538	235	9.1				
Baghdad	20	20	8.0	15	15	4.1				
Upper Middle (Producers: Nenawa, Diala, Salahuldin)	65	33	8.2	49	25	8.2				
Kirkuk	648	192	9.0	491	145	8.1				
Iraq, excluding KRG	4,776	3,111	135.3	2,986	1,896	92.8				
KRG	438	400	8.9	239	219	18.7				
Total	5,214	3,511	144.2	3,225	2,115	111.5				
Share of Upper Middle, %	1.4	1.1	6.1	1.6	1.3	8.8				

 Table (3) Crude Oil and Natural Gas Production and Proved Reserves in Iraq: 2014

Sources and Notes: see Appendix (2). TBD: thousand barrels daily. MCFD: million cubic feet daily.

III.3 Central budgeting

Wages and salaries of public employees, pensions, and social assistance, in the federal budget (and state owned enterprises, *SOEs*) generated about two thirds of total wage incomes in Iraq in 2012; Table (5). Additionally, public expenditures, especially investment, contribute directly and indirectly to the sustenance and growth of households' income generated in the private sector. Therefore, one expects that regional pattern of per capita consumption is tangibly influenced by budgetary allocation of expenditures.

A constitutional rule for budgetary regional allocations can be found in article 112.1 of the constitution, which stipulates that: "The federal government, with the producing governorates and regional governments, shall undertake the management of oil and gas extracted from current fields provided that it distributes oil and gas revenues in a fair manner in proportion to the population distribution in all parts of the country with a set

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allotment for a set time for the damaged regions that were unjustly deprived by the former regime and the regions that were damaged later on, and in a way that insures balanced development in different areas of the country, and this will be regulated by law". Therefore, a question arises whether such constitutional stipulations, concerning the governorates' allocations, were upheld in reality.

Expenditures in the budget are divided into two types; one includes the 'sovereign' and 'governance' expenditures, while the other (i. e., the 'net') represents the governorates' or regional 'entitlement'.⁸ Apart from KRG, which is allotted specific percentage (17%)⁹ of the net, allotments to the other governorates are not clear from published budgetary documents. Only a relatively small percentage, of non-KRG governorates' entitlement, is specified explicitly. As shown in table (4), explicit non-KRG regional allocations made less than 10% of their entitlement in 2013-15 and about 15% in 2011-12. The remainder (85-90%) is supposed to be executed through federal ministries and institutions, the regional details of which are neither available in the budget documents nor in data on actual expenditures. Furthermore, even for the relatively small explicit allocations, governorates' shares do not, generally, conform to their population shares. The difference is greater for oil/gas producing/refining governorates.

With the observed disparities in regional per capita consumption (section II.1 above), therefore, it is feasible to conclude that the constitutional rule, concerning the share of population, has not been, adequately applied to non-KRG governorates' budgetary allocations. It is also feasible to conclude that compared to other parts of the country, the high level of per capita consumption in KRG must have been sustained, in an important part, by securing a share in the budget commensurate with (as a matter of fact larger than) its population share. Both conclusions are based on the fact, referred to above, that in addition to the budget's indirect influence on households' incomes, direct publicly generated incomes, pensions, and transfers to the households make sizable share of total incomes; they made about 41% of total (including 66% of wage) households' incomes in 2012; Table (5).

Therefore, had regional budgetary allocations shares been closer to population shares, regional per capita consumption would have been less disparate.

⁸ Sovereign expenditures include expenses of such central offices as those of the President & deputies, Prime Minister & deputies, the Cabinet, Council of Representatives, foreign and defence ministries, national security and intelligence, etc. They also include debt service (local and foreign), Kuwait war reparations, national railroads, ports, etc. Governance expenditures include such items as food subsidies (*Public Distribution System, PDS*; rations) imports of electricity and fuel, [real estate] ownership disputes, etc. Their combined share in total expenditures allocations ranged from 27% in 2015's budget to 37% in 2011's budget; Table (4).

⁹ The 17% was assumed to represent the share of KRG's population of total Iraq. However, in 2009's general census of *Buildings, Houses, Establishments, and Households*, it transpired that the percentage of population living in KRG area made up 13.9% of Iraq; see HCGPC (2011).

	Population		Federal I	Budgets, I	D Billion		Percentag	es (%) of:
	2013	2011	2012	2013	2014	2015	Population	Allocations
	'000	Revised	Revised	Revised	'Agreed'	Approved	2013	2011-15
(1) Explicit Allo	ocations to 1	Non-KRC	Governo	orates				
Kirkuk	1,508	543	345	654	520	504	4.9	5.9
Nenawa	3,533	623	929	812	827	555	11.4	8.6
Salahuldin	1,521	527	583	598	493	376	4.9	5.9
Diala	1,559	356	369	365	368	233	5.0	3.9
Anbar	1,687	493	398	416	396	251	5.4	4.5
Baghdad	7,622	1,194	2,121	1,802	1,780	1,206	24.6	18.7
Babil	1,967	340	540	459	470	300	6.3	4.9
Qadisiya	1,225	285	297	297	305	198	4.0	3.2
Najaf 1,389		765	373	341	355	225	4.5	4.7
Karbala	1,152	227	278	284	386	198	3.7	3.2
Misan	1,049	405	493	252	308	263	3.4	4.0
Wasit	1,308	266	299	313	421	314	4.2	3.7
Muthana	777	162	204	204	201	131	2.5	2.1
Thiqar	1,984	324	485	475	491	366	6.4	4.9
Basra	2,735	2,529	1,500	1,958	1,752	1,701	8.8	21.8
Total non-KRG Governorates	31,016	9,037	9,212	9,230	9,074	6,819	100	100
(2) Governorate	es' Entitlen	nent						
Total Federal Exp	enditures	105,113	117,123	146,598	163,417	119,462		100
- Sovereign & G	overnance	39,312	39,949	42,099	43,509	31,723		30.2
- KRG Sh	are	11,186	12,605	15,696	20,860	15,259		11.6
= non-KRG Gov Entitleme	ernorates' ent	54,615	64,569	88,803	99,048	72,481		58.2
non-KRG Gove Explicit Alloco Entitlemen	16.5	14.3	10.4	9.2	9.4		11.4	

Table (4) Governorates' Entitlement and Explicit Allocations in the Federal Budget

Sources and Notes: see Appendix (2).

Table (5) Sources of Households' Income: 2012 ID Trillion

	Wage Earners Compensations of Employees & Transfers	Non-Wage Earners Operating Surplus & Transfers	Total
Public Sector	43.2	4.5	47.7
Earned incomes	37.5		37.5
Transfers: pensions and social assistance from federal budget	5.7	4.5	10.2
Private Sector	22.1	46.3	68.4
Earned incomes	22.0	46.3	<i>68.3</i>
Net transfers from abroad	0.07		0.1
Total Income	65.3	50.8	116.1
Percentage of Public Sector, %	66.3	8.8	41.1

Sources and Notes: see Appendix (2).

IV. Decentralization and federal revenue-sharing

The sharp decline in oil prices of 2014/15 and DAISH (ISIS) heightened security threat have worsened further Iraq's financial, economic, and external balances; IMF (2015).¹⁰ This serves as a reminder of the rentier nature of the economy and the need for economic diversification. From the foregoing sections, however, it is clear that in light of weak economic management, fragmented institutional set-ups, and ever-widening internal social/political divisions, a national view of the development of the economy hardly lends, in the short/medium term, an obvious sectoral choice apart from the oil/gas sector. Notwithstanding the need to improve the conditions for economic diversification, the development of this sector all over Iraq, including the Upper Middle, and sharing/management of its revenues will be an influencing factor toward unifying or further fragmenting the country. Let us look into two administrative/economic proposals that could contribute to a possible compromise, at least in the Arab part of the country.

IV.I Decentralization

The grip of the central government in Iraq had been eroding since the imposition of the no-fly zone in 1991; which insured effective autonomy for the Kurdish region. The erosion extended to parts of the Upper Middle after 2003, especially during the armed conflict/civil war of 2004-09. With the re-emergence of Al-Qaeda/DAISH and other armed groups since 2012, which culminated in the occupation of Mosul in June 2014 and then Ramadi in May 2015, this part has become the centre-stage for renewed armed conflict/civil war. By now, it seems difficult to envisage a return of this part to the authority of the central government, in the foreseeable future, as before. Furthermore, even if unification were possible militarily, it cannot be sustained by the same administrative/political set-up. What could be possible or indeed viable, in terms of popular support, is to transform the present separation of this part into possible reunification through a decentralized administrative/financial arrangement. This task is itself challenged by experience, though. Apart from daunting political and armed opposition, lack of adequate regional institution-building has resulted in low levels of local governance, social development, and execution of investment projects. Moreover, weak institutions, poor monitoring, and lack of checks and balances, all resulted in widespread corruption. This, however, applies to federal as well as local governments. Merza (2014).

Notwithstanding the low level of governance and prevalence of corruption, a question arises about the desired form of decentralization. Will it be in keeping the non-KRG governorates as they are but implementing, at the same time, the amended Governorates Law 21 of 2008, or incorporating them in provinces/regions similar to the KRG?¹¹ The present reluctance to widely debate the provinces/regions option derives

¹⁰ '[despite higher oil production] non-oil activity has been harmed by the violence, particularly in the ISIScontrolled areas, but also in the rest of Iraq as productive assets and infrastructure have been destroyed, internal and external trade disrupted, and the confidence of households and investors undermined. In addition, lower oil revenue is leading to a compression of government spending, particularly investment, further dragging down the economy'; IMF (2015, P.5).

¹¹ Reference in the text is to the second amendment of Law 21 of 2008, included in Law 19 of 2013. It was published in the *Official Gazette* on August 5, 2013, which is considered the start of its enforcement. Yet, despite

from two factors. The first emanates from the possibility that forming provinces/regions could result into creation of conflicting sectarian/ethnic entities, which, in turn, accentuates foreign interferences. The second arises from the likelihood that such arrangement could motivate Basra, and other southern oil-producing governorates, into forming region/regions with similar independent practices as those of the KRG. Such independence would have serious consequences in weakening the central government and other parts of the country; politically and financially. As clearly shown above, the south is the main source of finance for the economy and will continue so for the foreseeable future.

It is worth noting, however, that even if the governorates do not form into regions, implementation of the amended governorates law could increase their administrative and financial powers a great deal vis-à-vis the centre. For instance, article 2.6 states that: *'the common powers stipulated in articles (112, 113, 114) of the constitution shall be managed in coordination between the federal government and local governments, and in case of a dispute the priority shall be given to the laws of the governorates (not incorporated in regions) according to article 115 of the constitution'.* Furthermore, article 45.1 stipulates the transfer of 'subsidiary' offices, bodies, specializations, staff/workers, and federal budget's financial authorizations relating to the governorates (and currently exercised by the federal ministries) to the governorates within specified time. The remaining role of these ministries shall be confined to 'planning and general policies'.¹² The implementation of this law, therefore, could lead to a situation between the federal government and governorates similar to that with KRG. Moreover, as article 112 of the constitution relates to natural resources including oil, this could offer the oil producing governorates a similar path to that of KRG.

Nonetheless, whichever form the decentralization schemes take, including the amended Governorates Law, it needs to be implemented in a way to realize a balance between empowering the governorates/regions, on the one hand, and insuring effective and credible federal authority, on the other. This includes, *inter alia*, the enforcement of a constructive federal role to coordinate the governorates' economic development/strategy and policies, relating to their federal allocations after the implementation of article 45.1. Furthermore, a decentralized structure would not on its

the expiry of the specified deadline for implementation of Article 45.1 (two years from enforcement; see next footnote), it is not implemented yet.

¹² The relevant stipulations in article 45.1 read as follows: '... a commission shall be established titled (High Commission to Coordinate Between the Governorates) headed by the Prime Minister and includes as members the ministers of (Municipalities & public works, Development & housing, Labour & social affairs, Education, Health, Planning, Agriculture, Finance, Youth & sport), the minister of governorates & governors affairs, and heads of governorates' councils, to carry out the following: (1) to transfer, gradually, the subsidiary offices, bodies, functions, and specializations exercised by the [said ministries] together with their financial allocations in the general [federal] budget and [staff/workers] to the governorates, within their functions specified in the constitution and specialized laws; the role of the ministries remains in planning and general policies, (2) to coordinate between governorates and whatever relates to their affairs, local administration, and treatment of their problems and obstacles, (3) to set up mechanisms for the management of shared specializations between the federal and local governments request from the federal government, and vice versa, which are required to manage investment projects and facilitate the administration of the governorates according to article 123 of the constitution, (5) the commission shall fulfill the tasks referred to in point 1 above within two years of coming to force of this law, otherwise if not fulfilled they are considered transferred by law'.

own insure sustainable sharing of power without effective federal institutions and the desire of the political class to reach compromises; Merza (2014).

IV.2 Insuring equitable regional allocation of budgetary expenditures

Decentralized units require financial resources to exercise power within their boundaries. With the present disparate regional financial capabilities, which are expected to continue in the foreseeable future, the federal budget is a main tool to provide funding and transfers. Within the framework of constructive federal coordination, article 112.1 of the constitution (based mainly on shares of regional population), together with the 'petrodollar' scheme, could provide acceptable yardstick for regional allocation of federal expenditures (i.e. of governorates' entitlement). However, it has been observed that there are indications to suggest that stipulations in article 112.1 are not adequately observed; section (III.3). Therefore, a mechanism and institutional set-up need to be instated to insure 'balanced/fair' distribution of federal financial resources through federal budgetary regional allocations.

Article 106 of the constitution obligates the setting-up of a commission to 'monitor the allocation of the federal financial resources ... [in order] to insure transparency and fairness, ..., among regions and governorates, ..., according to the established percentages'.¹³ Consequently, a draft law, 'Law of Financial Resources', was proposed and submitted to the Council of Representatives, CoRs, in 2007, but not approved yet. The articles of the draft law go beyond the monitoring role, envisaged in Article 106 of the constitution, towards overseeing the whole allocation process. The draft includes the setting up of an independent commission to monitor and oversee the process, a 'Financial Resources Fund' to deposit all federal financial resources, and another one for future generations; the 'Future Fund'.

As it stands, the draft law is, largely, impracticable. To make it workable and relevant to the present, the following needs to be taken care of in any revision:

- (1) The setting up of the 'Financial Resources Fund' is seemingly intended to facilitate the monitoring of incomings and outgoings of the federal financial resources. This could well be achieved without the need to set up this fund. The present government (i. e., Ministry of Finance) accounts at the Central Bank of Iraq, CBI, where federal financial resources are deposited, may well be subjected to the monitoring clauses in the draft law.
- (2) The 'fairness' of regional distribution is not defined explicitly in the draft law. Apart from the case of 'allocating 17%' to KRG, there are no clear guidelines, in the draft, concerning the other regions/governorates. Therefore, in light of the current fundamental role of federal ministries/institutions in executing most of non-KRG governorates' entitlement, the independent commission can only insure a 'fair' distribution by meeting two prerequisites. First, together with the Petrodollar scheme, the commission needs to invoke, *inter alia*, article 112.1 of the constitution as the main criteria for allocating the governorates' entitlement; rather than leaving

¹³ The term 'established percentages' is not elaborated. It is worth noting that in the first draft of the constitution the function of the commission was drafted to 'monitor and allocate'. In the approved version (published on CoRs' website, <u>http://www.parliament.iq/</u>) this was changed to 'monitor the allocation'.

it to the discretion and judgements of its members. Secondly, until the full implementation of article 45.1 of the amended Governorates Law, the commission ought to devise monitoring procedures in order to insure proper execution, by federal ministries/institutions, of governorates' entitlement.

- (3) The role of the commission should be narrowed down to monitoring and whistleblowing. It needs not assume 'executive' powers relating to overseeing the federal resources fund or involve itself in the process of budgetary allocations. Direct involvement would compromise the commission's monitoring role and lead to disputes. For instance, what is the extent of involvement of the commission in the budgetary process? Should the commission sanction the draft budget before its submission to the CoRs? What happens when disputes arise with the ministry of finance, the prime minister office, or the CoRs?
- (4) The commission ought to be answerable to the CoRs in a similar way as the CBI; i. e., independent in its working but subject to oversight and questioning by the CoRs.
- (5) A 'Future' fund is proposed in the draft law without specifying its main objective; is it for investment, stabilization, or both? Merza (2011a). Moreover, there is ambiguity in determining its share of federal revenues. In article (4) of the draft what goes to the fund is determined immediately after specifying the '... sovereign expenditures of the federal government and strategic projects'. Then, the shares of KRG and other governorates are subsequently determined. By contrast, in Article (7), it is the other way around; the Fund's share is determined as a percentage of the budget's 'surplus', i.e. after determining all other expenditures including those of KRG and other governorates.
- (6) Until the full implementation of article 45.1 of the amended Governorates Law, supplementary tables need to accompany future federal budgets; one for each governorate showing allocated expenditures, including those managed by local governorates and those by federal ministries/institutions.

To sum up, within the framework of constructive federal coordination, stipulations of article 112.1 of the constitution concerning the percentage of governorates' population, and the transient compensation for damages inflicted by the past regime and post 2003 armed conflicts/civil wars, together with the petrodollar, should be applied in transparent way in budgetary practices. A revised proposed 'Law of Financial Resources' to monitor the budgetary allocations and implementation, after taking into account the points suggested in this section, could go a long way to insure more equitable ('fairer') distribution of federal financial resources among regions and governorates and to buttress proposed decentralized schemes.

V. Conclusions: present dilemmas in Iraq

(1) Although political and social differences and mistrust can be partially or temporarily addressed by setting up regions or highly decentralized governorates, a '*social contract*' is vital for long-term political stability and sustainable economic development. The contract needs to be based on political/social agreement on the form of governance, roles of the different groups and regions in the ladder of power, and acceptance of a unified federal country and equal citizenship for all. As it seems

now no indication of an overall compromise among/within the political (and armed) groups is in sight. Entrenchment on sectarian/ethnic lines is ever present and it seems strengthening and taking precedence over national interests.

- (2) The absence of viable non-oil sectoral development strategy and, thus, continuing dependence on oil would preserve the rentier nature of the central state in Iraq. Furthermore, it will be extended further to the constituent parts when oil/gas developments cover all governorates/regions, including the Upper Middle. The rentier state, which reigned during much of the past five decades, has trapped the country into a vicious circle of dictatorial practices, armed conflict/wars, and hence low standards of living; in turn enhancing dependence on oil. Without effective governance, peace, and societal will to work hard, the rentier trap(s) could continue for a long time to come.
- (3) Social/political conflicts have recently extended to the hinterland of power. Protesting inadequate public services, long-hours of electric power cuts, widespread corruption, and the sectarian/religious base of politics and public administration, growing demonstrations have started early in August 2015 and continued afterward, mainly in Bagdad, the south, and mid-Euphrates.
- (4) Supported by the highest religious authority, the prime minister proposed a package of 'reforms' on August 9, 2015. It was approved by the CoRs on August 11. In addition to sacking the vice presidents and prime minister's deputies and merging some ministries, it was intended to reduce sectarian/ethnic distribution of public posts (Muhasasa) and solve the problems in public services. It also included a promise to open investigations into corruption charges. Given the lack of clear domain, implementing agencies, and timelines in the proposed package, with his narrow power base, it is doubtful that the prime minister can proceed much further without the consent of his allies; Muhammed (2015). Furthermore, the stance of powerful leaders of *Popular Mobilization* groups, is not clear. Although they supported the popular protests and the prime minister's reform package, its implementation may produce new situations in which positions could well change.

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Appendix (1) Detailed Tables

Governorates' GDPs and Spending 2012: rudimentary disaggregation

To describe and analyse regional disparities in spending and output, a regional disaggregation is required. In its publications, the *Central Statistical Organization* (CSO) GDP and national accounts estimates are presented for 'total' Iraq. Figures are not published for governorates; not even for the autonomous KRG. Therefore, to analyze regional economic interdependence, we need to have a picture on regional disaggregation of GDP and spending. Without the involvement of the concerned statistical bodies, mainly CSO and *Kurdistan Region Statistics Organization* (KRSO), formidable obstacles stand in the way of any attempt in this direction. Both organizations have, so far, not attempted to carry out this task. Therefore, to entice them into such attempt we carried out a 'desktop' exercise in disaggregating available national accounts estimates among the governorates.

Together with the national figures, available information and surveys relating to the governorates are used to achieve this task. Year 2012 represent a good choice. National accounts estimates for this year are 'final' and fairly detailed on the national level (output, expenditures, and incomes). The industrial surveys for 2012 cover all industrial establishments in all governorates. Crude oil and gas according to non-KRG governorates can be estimated with fair accuracy. That of KRG can be inferred from secondary, and recently primary, sources. On the income and spending side, the *Household Socio-Economic Survey, IHSES-2012* (CSO, KRSO, WB, 2014) provides comprehensive regional figures on private consumption and some elements of private investment, together with households' earned and transfer incomes and their sources. Details in the budget of 2012 and its actual expenditures give some regional figures as indicated in section (III.3) in the text. Other regional details can be derived from other sources and/or years (2009-2013). Disaggregation of other items in the national accounts has no obvious regional details. Therefore, more approximate methods are used.

Consequently, the regional distribution of value added and spending in this appendix is rudimentary and provisional at best. Its only value emanates from the general picture that it gives about the sources of output and incomes and the possible role of the federal budget in transferring incomes from 'surplus' to 'deficit' governorates.

The following two tables (A1 and A2) and their notes and explanations present the result of our estimations exercise. Despite all mentioned qualifications, the two tables show clearly the current imbalance in regional production/spending structure of the country which is one important source of regional disparities in standards-of-living, political power, and political/armed conflicts.

								Wholesale.						GDP at B	asic Prices	Net Indirect	
	Population Thousands	Agriculture, Forestry, Hunting & Fishery	Crude Oil	Other Mining	Manufacturi ng	Electricity and Water (E&W)	Building and Constructio n	Retail Trade, Hotels & Others	Transport, Communicat ion & Storage	Banking and Insurance	Ownership of Dwellings, etc.	Government Services	Private Services	Before Deducting Imputed Banks Charges	After Deducting Imputed Banks Charges	Taxes (Indirect Taxes - Subsidies)	GDP at Market Prices
Sulaymania	1,932	839	2,249	77	628	439	863	1,341	986	280	1,146	2,593	273	11,714	11,646	-2,739	8,907
Erbil	1,658	472	2,303	61	873	377	723	1,267	932	265	1,347	2,293	318	11,230	11,164	-2,583	8,581
Duhok	1,159	535	2,914	98	153	263	437	754	554	158	509	1,545	150	8,072	8,024	-1,492	6,532
Baghdad	7,255	860	366	22	1,269	936	2,981	3,692	2,715	772	5,353	6,859	1,191	27,016	26,857	-7,712	19,145
Kirkuk	1,433	430	20,011	44	345	247	652	1,019	750	213	485	986	197	25,378	25,229	-1,553	23,676
Najaf	1,320	388	0	17	249	110	596	640	471	134	597	1,182	243	4,628	4,601	-1,339	3,261
Basra	2,602	241	86,403	15	787	400	1,977	2,953	2,172	617	1,135	2,046	363	99,107	98,525	-3,676	94,849
Karbala	1,094	325	0	150	301	120	468	602	443	126	536	1,079	202	4,353	4,327	-1,260	3,068
Wasit	1,241	619	5,439	35	110	95	591	687	505	144	371	1,078	187	9,860	9,802	-1,280	8,523
Anbar	1,599	723	0	42	725	93	664	856	629	179	486	1,564	224	6,186	6,149	-1,790	4,359
Diala	1,478	671	357	26	188	89	619	728	535	152	468	1,487	260	5,581	5,548	-1,512	4,036
Salahuldin	1,441	744	238	47	466	291	594	757	556	158	422	1,225	185	5,683	5,649	-1,576	4,074
Babil	1,864	1,048	0	7	244	136	773	917	675	192	623	1,704	311	6,631	6,592	-1,919	4,673
Thiqar	1,883	419	0	22	89	198	817	797	586	167	585	1,753	326	5,759	5,725	-1,667	4,059
Qadisiya	1,162	566	0	9	63	94	457	546	402	114	260	1,229	207	3,947	3,924	-1,142	2,781
Nenawa	3,354	954	595	38	177	358	1,335	1,173	862	245	774	2,045	456	9,012	8,959	-2,436	6,523
Muthana	736	325	0	19	92	106	309	317	233	66	157	566	100	2,291	2,277	-663	1,614
Misan	997	325	5,561	61	159	89	559	591	435	124	313	912	150	9,280	9,226	-1,076	8,149
Iraq	34,207	10,485	126,436	790	6,919	4,441	15,416	19,637	14,440	4,105	15,569	32,147	5,342	255,727	254,225	-37,414	216,812
Private Sector		10,484	0	729	5,012	805	15,140	16,331	13,373	888	15,569	0	5,342	83,674	83,182	-24,213	58,969
Public Sector	I	1	126,436	61	1,907	3,635	277	3,306	1,067	3,217	0	32,147	0	172,053	171,043	-13,201	157,843
KRG	4,748	1,845	7,467	236	1,654	1,080	2,024	3,361	2,472	703	3,002	6,431	741	31,016	30,834	-6,815	24,019

Table (A1) Governorates' Gross Domestic Products in Iraq: 2012 Values in ID Billion

Sources and methods of regional disaggregation:

(1) Population: CSO (2014), Part 2, http://cosit.gov.iq/AAS13/population/pop(11).htm.

(2) Sectoral value added 'national' figures (totals of columns in this table) and their distribution between private and public sectors are from CSO (2015c).

(3) The totals of the columns are distributed among the governorates as follows:

(i) The value added of agriculture, etc., is distributed according to number of governorates' agricultural ownerships in 2009, reported in HCGPC (2011, P. 27).

- (ii) Crude Oil value added is distributed according to actual production of oil/gas in 2012. For non-KRG production: MoO's website, IEA (2012), and Merza (2014). For KRG, the remainder (after deducting non-KRG total from the column total) is distributed among the three KRG governorates according to 2014 production, reported in IOD (2014).
- (iii) Other mining is distributed according to the number of workers from a 2009's survey on private mining and quarrying reported in CSO (2010). No other survey is available until 2014. The 2014 survey is not used because of doubts about its results due to the security situation and absence of figures for Salahuldin governorate.
- (iv) For manufacturing, the totals of surveys for 2012 (home, small, medium, and large industries; according to governorates), in CSO (2015a, 2015b) are very close to 'national' value added of manufacturing in 2012 reported in CSO (2015c); i.e., the column's total. Therefore, the governorates' figures summed up from these four surveys are placed in this table almost as they are. There is a small difference which is distributed proportionally among the governorates. For individual industrial surveys see CSO (2015a, 2015b).
- (v) Electricity and water, E&W, is distributed according to non-KRG governorates consumption/production of electricity in 2011, reported in CSO (2014), *Part 4*. For KRG, its remaining share (i.e. column total minus non-KRG's value added) is distributed in proportion to the share of other sectors in the KRG-governorate to total KRG.
- (vi) National buildings and constructions' value added is distributed according to capital formation in each governorate from Table (A2).
- (vii) National value added for dwellings ownership is distributed according to governorates' actual and imputed rents for housing, from *Iraq Household Socio-Economic Survey, IHSES 2012*, in CSO, KRSO, WB (2014).
- (viii) Government services include public administration, defence, mandatory social insurance, public education, public health and other social services. National education's value added is distributed according to governorates' number of publicly employed teachers in all levels of education. Health's value added is distributed according to governorates' number of publicly employed medical workers. Due to unavailability of regional distribution of civil servants in public administration, public administration's value added is distributed according to the sum of publicly employed teachers and health workers in each governorate. For KRG, the percentage of public employees in 2012's budget to total employees is used. Number of publicly employed teachers and health workers in the governorates are obtained from CSO (2014), *Parts 9 and 10*, respectively.
- (ix) Private services include private education, private health, and other social & personal services. Private education is distributed according to governorates' number of privately employed teachers in all levels of private education. Private health is distributed according to governorates' number of privately employed medical workers. Personal and other services are distributed according to governorates' private consumption from Table (A2). Numbers of privately employed teachers and health workers in the governorates are obtained from CSO (2014), *Parts 9 and 10*, respectively.
- (x) The remaining sectors' values are distributed according to the share of the above sectors in the national figures.
- (xi) Governorates' net indirect taxes are from Table (A2).

Note: KRG, Kurdistan Regional Government, includes: Sulaymania, Erbil, and Duhok.

	Population		E	Expenditure	xpenditures (Spending)			Net	Net Imports Exports of Goods & Services				Gross		Gross	Net		Fixed	
	Thousands	Consu	mption	Gross Fix Form	ed Capital nation	Change in	Total	Regional Exchanges	of Goods &	Oil/Gas &	Othow	Total	Domestic Product at Market	Net Indirect Taxes	Domestic Product at	Incomes from	Gross National	Capital Depreciatio	Net National
		Private	Public	Private	Public	Stocks	Spending	(balancing item)	Services	Products	Others	Total	Prices		Basic Prices	Abroad	Income	n Allowances	Income
Sulaymania	1,932	10,697	3,401	716	1,421	-399	15,835	-1,209	6,744	996	29	1,025	8,907	-2,739	11,646	51	11,696	1,294	10,403
Erbil	1,658	9,057	3,007	569	1,219	-340	13,513	-261	5,717	1,019	27	1,046	8,581	-2,583	11,164	49	11,213	1,240	9,973
Duhok	1,159	5,280	2,026	230	852	-202	8,186	431	3,389	1,290	14	1,303	6,532	-1,492	8,024	37	8,061	891	7,170
Baghdad	7,255	21,485	8,995	747	6,629	-834	37,022	-2,570	15,349	0	42	42	19,145	-7,712	26,857	109	26,966	2,983	23,983
Kirkuk	1,433	4,944	1,294	93	1,519	-173	7,677	2,502	3,385	16,867	15	16,883	23,676	-1,553	25,229	135	25,364	2,802	22,561
Najaf	1,320	4,029	1,550	270	1,204	-156	6,897	-744	2,905	0	13	13	3,261	-1,339	4,601	19	4,619	511	4,108
Basra	2,602	6,700	2,683	413	4,477	-261	14,011	4,683	6,038	82,173	20	82,193	94,849	-3,676	98,525	540	99,066	10,944	88,122
Karbala	1,094	2,856	1,415	160	999	-117	5,313	-100	2,157	0	12	12	3,068	-1,260	4,327	17	4,345	481	3,864
Wasit	1,241	3,166	1,414	213	1,248	-127	5,913	-120	2,457	5,172	14	5,187	8,523	-1,280	9,802	49	9,851	1,089	8,762
Anbar	1,599	4,115	2,051	184	1,459	-168	7,641	-213	3,097	0	29	29	4,359	-1,790	6,149	25	6,174	683	5,491
Diala	1,478	3,869	1,950	174	1,358	-159	7,193	-265	2,909	0	17	17	4,036	-1,512	5,548	23	5,571	616	4,955
Salahuldin	1,441	4,043	1,607	144	1,325	-155	6,964	3	2,916	0	24	24	4,074	-1,576	5,649	23	5,673	628	5,045
Babil	1,864	5,188	2,235	212	1,701	-204	9,132	-705	3,779	0	26	26	4,673	-1,919	6,592	27	6,619	732	5,887
Thiqar	1,883	3,748	2,299	271	1,751	-165	7,905	-720	3,136	0	10	10	4,059	-1,667	5,725	23	5,748	636	5,112
Qadisiya	1,162	2,120	1,612	71	1,061	-99	4,765	-186	1,810	0	12	12	2,781	-1,142	3,924	16	3,939	436	3,504
Nenawa	3,354	7,043	2,681	220	3,082	-267	12,759	-830	5,428	0	22	22	6,523	-2,436	8,959	37	8,996	995	8,001
Muthana	736	1,287	743	93	672	-56	2,739	-28	1,105	0	8	8	1,614	-663	2,277	9	2,286	253	2,033
Misan	997	1,673	1,196	84	1,299	-77	4,176	333	1,658	5,289	10	5,299	8,149	-1,076	9,226	46	9,272	1,025	8,247
Iraq	34,207	101,300	42,159	4,866	33,274	-3,958	177,640	0	73,980	112,806	346	113,152	216,812	-37,414	254,225	1,235	255,461	28,239	227,222
Private/Househo	old Sector	101,300		4,866		-3,011	103,154	2,627	47,110	74	225	299	58,969	-24,213	83,182	336	83,518	9,240	74,279
Public Sector			42,159		33,274	-947	74,486	-2,627	26,870	112,732	121	112,853	157,843	-13,201	171,043	899	171,942	18,999	152,943
KRG	4,748	25,034	8,434	1,515	3,492	-941	37,534	-1,039	15,851	3,305	70	3,374	24,019	-6,815	30,834	137	30,971	3,425	27,546

Table (A2) Governorates' Gross Domestic Products/Spending in Iraq: 2012 Values in ID Billion

Sources and methods of regional disaggregation:

(1) Population: see note (1) in table (A1).

- (2) Gross domestic product/spending national figures (totals of columns in this table) are from CSO (2015c).
- (3) The totals of the columns are distributed among the governorates as follows:
 - (i) The national figure of private consumption for each governorate is that of IHSES-2012, in CSO, KRSO, WB (2014), the sum of which almost coincides with the national total reported in CSO (2015c); i.e., the column's total. The very small difference is distributed proportionally among governorates.
 - (ii) Public consumption is distributed amongst governorates according to governorates' government services in Table (A1).
 - (iii) Public capital formation is distributed according to actual figures of public capital formation for the governorates in Budget 2012 and actual spending for Budget 2011. Oil capital formation is distributed according to oil production. Private capital formation is distributed according to governorates per-capita capital expenditures in IHSES-2012, in CSO, KRSO, WB (2014).

- (iv) Change in stocks is distributed amongst governorates according to the shares of (private consumption + ratio of goods in public consumption \times public consumption + capital formation) in each governorate to the column's total.
- (v) National figure for imports of goods and services is distributed according to governorates distribution of (private consumption + ratio of goods in public consumption + capital formation).
- (vi) The division of imports of goods & services between private/household and public sectors is taken from the revised balance of payments, BOP, for 2012, reported in CBI (2014), after modifying for the relatively small difference between BOP's total and that reported in CSO (2015c), i.e., the column's total.
- (vii) The national figure for exports of goods and services in CSO (2015c) is close to that in the revised figures of BOP 2012 reported in CBI (2014). Therefore, shares of oil (including products) and non-oil exports are taken from BOP's figures. BOP's figures are also used to obtain shares of public and private exports; in particular all crude oil and most oil products are exported by the public sector, so are the exports of sulphur and phosphate within 'other exports'. Exports of the private sector include some oil products and the rest of 'other exports'.
- (viii) Crude oil (and products) exports are distributed among governorates according to crude oil production/exports of governorates as reported in MoO's website, IEA (2012), and Merza (2014). KRG exports are derived as the difference between the national figure of crude oil (and products) exports and non-KRG crude oil (and products) exports. It is distributed among KRG governorates according to the three governorates' oil output for 2014 reported in IOD (2014).
- (ix) National figure for 'other exports' is distributed amongst governorates in proportion to their agriculture and manufacturing value added in Table (A1).
- (x) Net Regional Exchanges (balancing item) for each governorate is calculated as the difference between GDP (at market prices) for the governorate and its (consumption + investment + net trade). This formula is a re-arrangement of regional GDP formula that includes interregional exchanges, in Eurostat (2013, P.36). The sum of the column should obviously be equal to zero. It is worth noting that in its provincial national accounts, *Statistics Canada* estimates these exchanges directly rather than deriving them as balancing items; see Canadian provincial and territorial estimation for the years 1981-2010, in http://www.statcan.gc.ca/pub/13-018-x/2011001/tab-eng.htm#pei-ipe.
- (xi) Net indirect taxes (*indirect taxes subsidies*): distributed according to governorates' (private consumption + ratio of goods in public consumption \times public consumption + capital formation).
- (xii) Total net factors' income from abroad (which also coincides with that calculated from the revised BOP 2012) is distributed according to governorates' gross national products at market prices in Table (A1).
- (xiii) Total fixed capital depreciation allowance is distributed according to the governorates' gross national products at basic prices in Table (A1).

Time series on sectoral value added and gross fixed capital formation

	Population	GI)P	Agricu Forestry, F Fish	lture, Iunting & iery	Manufa	cturing	Mini Construct E&	ing, tion, and xW	Service	es, etc.
	'000	At Current Prices	At 1988 Prices	At Current Prices	At 1988 Prices	At Current Prices	At 1988 Prices	At Current Prices	At 1988 Prices	At Current Prices	At 1988 Prices
1968	8,856	1,035	5,616	168	1,696	95	51	388	2,067	384	1,803
1969	9,143	1,074	5,798	161	1,699	103	58	393	2,138	417	1,903
1970	9,440	1,172	6,062	195	1,853	116	68	424	2,144	438	1,997
1971	9,750	1,300	6,588	216	1,927	119	/9	208	2,335	464	2,047
1972	10,074	1,570	6.919	200	1 770	140	92	648	2,044	539	2,175
1974	10,765	3.401	8.034	278	2.109	188	96	2.206	3.021	729	2.808
1975	11,124	3,974	9,038	312	1,812	271	117	2,435	3,684	957	3,425
1976	11,505	5,243	10,590	429	2,223	380	145	3,331	4,569	1,103	3,653
1977	12,000	5,858	10,791	498	2,167	489	162	3,558	4,420	1,313	4,042
1978	12,405	7,017	12,632	551	2,193	506	178	4,332	5,421	1,629	4,839
1979	12,821	11,167	15,268	612	2,162	629	209	7,782	7,110	2,145	5,787
1980	13,238	15,771	19,047	742	2,150	712	2,113	10,953	6,348	3,364	8,435
1981	14,110	11,547	19,908	930	2,192	972	2,257	5 307	4,900	4,434	9,574
1983	14,586	12,713	17.001	1,310	2,337	1.012	2,285	4,963	4.601	5.232	7,778
1984	15,077	14,551	16,748	1,942	2,593	1,301	2,258	5,231	4,083	6,077	7,815
1985	15,585	15,012	16,992	2,160	3,000	1,480	2,521	5,098	3,837	6,273	7,633
1986	16,110	14,652	17,781	2,174	2,872	1,756	2,494	3,775	4,100	6,947	8,316
1987	16,335	17,600	19,436	2,519	2,632	2,071	3,401	5,324	5,354	7,686	8,049
1988	16,882	19,432	19,432	2,834	2,834	2,641	2,641	5,493	5,493	8,464	8,464
1989	17,428	20,408	18,826	3,340	3,110	2,694	2,665	38 350	4,/88	8,786	8,263
1990	18 419	42 452	10.682	6 629	2 877	1 358	539	20 313	3 391	10,903	3 875
1992	18,949	115.108	14,164	22.873	3,532	3,303	550	56.821	4.977	32.112	5.105
1993	19,478	321,647	18,454	49,864	3,492	8,541	1,323	177,558	4,046	85,684	9,592
1994	20,007	1,658,326	19,165	333,524	3,741	24,622	1,377	902,157	4,655	398,022	9,392
1995	20,536	6,695,483	19,571	1,378,274	4,188	93,292	1,602	4,249,757	5,317	974,160	8,464
1996	21,124	6,500,925	21,728	1,208,982	4,498	65,335	1,672	3,734,228	5,831	1,492,379	9,727
1997	22,046	15,093,144	26,343	1,276,367	4,134	98,440	1,709	11,224,478	13,233	2,493,859	7,267
1998	22,721	17,125,848	35,525	1,808,380	4,475	301.635	1,735	27 122 705	21,575	3,244,184	8744
2000	24 135	50 213 700	42 359	2,482,017	4 589	455 995	1,830	42 123 204	26,008	5 307 224	9 310
2001	24,874	41,314,569	43,335	2,863,495	4,644	609,807	1,909	31,375,757	27,023	6,465,509	9,759
2002	25,636	41,022,927	40,345	3,512,659	5,433	624,346	1,740	29,797,377	23,705	7,088,545	9,467
2003	26,421	29,585,789	26,990	2,486,866	3,850	303,724	1,244	20,654,326	14,388	6,140,873	7,508
2004	27,230	53,235,359	41,608	3,693,768	4,522	937,682	967	31,980,435	20,981	16,623,474	15,138
2005	28,064	73,533,599	43,439	5,064,158	5,940	971,031	956	45,802,540	20,382	21,695,870	16,161
2006	28,924	95,587,955	47,851	5,568,986	6,196	1,4/3,218	1,056	57,260,028	21,525	31,285,723	19,074
2007	30 723	157 026 062	51 717	6 042 018	3 889	2 644 173	1,122	95 950 699	25,876	52 389 172	20 785
2009	31,664	130,643,200	54,721	6,832,552	4,021	3,411,292	1,588	64,509,837	26,743	55,889,520	22,370
2010	32,481	162,064,566	57,752	8,366,232	4,064	3,678,715	1,688	86,742,771	28,208	63,276,848	23,793
2011	33,330	217,327,107	63,650	9,918,317	4,740	6,132,761	2,050	129,801,061	31,449	71,474,969	25,412
2012	34,207	254,225,491	71,681	10,484,949	4,941	6,919,449	2,093	147,082,697	36,448	89,738,395	28,198
2013	35,094	271,091,778	77,688	13,045,856	5,018	6,402,251	1,931	154,303,359	39,220	97,340,311	31,520
2014 Annual Pate	30,007	257,109,626 0/	12,093	10,957,065	5,030	7,031,292	2,270	144,512,185	38,192	94,609,088	27,190
1068 80	3 4	/0	10.3		2.0		21.0		11.8		12.8
1980-02	3.0		3.9		4.1		-2.1		8.1		0.3
1980-97	3.0		0.7		4.1		-4.4		2.1		-0.7
1997-02	3.1	******	8.1		3.9		1.0		10.9		6.1
2002-14	2.9		7.2		-0.2		5.9		6.9		10.3
Shares in GD	P,%										
1968/72		100	100	17	31	10	1	37	35	37	33
1976/80		100	100	6	16	6	4	66	41	21	39
1981/97		100	100	14	17	1	10	67	31	18	42
1981/90		100	100	12	14	9	12	43	31	36	43
1991/97		100	100	14	20	1	7	67	32	18	41
1998/02		100	100	/	12	2	4	57	01 51	14	22
2010/14		100	100	3	/	3	3	3/	51	30	40

Table (A3) GDP by Sectors in Iraq Values in ID Million

Sources:

(1) GDP and sectoral value added: World Bank (2015b). World Bank figures are used for two reasons. First, no such long series is available from official Iraqi sources. Secondly, compared to available

UN figures (UNDESA, 2013), World Bank figures are comparable with available official Iraqi figures at current and constant (i.e. 1988) prices.

(2) Population: CSO's *Annual Statistical Abstracts 1988, 1994, 2006/2007, 2012/2013*, HCGPC (2011); <u>www.cosit.gov.iq.</u> and projection for 2013, 2014.

Notes:

- (i) *Services, etc.* includes all other sectors: i.e. wholesale/retail trade (including hotels and restaurants), transport, communications & storage, financial, dwellings, government, professional, and personal services. GDP is net of imputed bank service charges.
- (ii) Average annual rates of growth for the sup-periods are compound rates, estimated using least squares semi-log trend equation for each sub-period.

	2005 Prices	Current Prices
1970	1,593	0.4
1971	1,552	0.4
1972	1,670	0.5
1973	2,392	0.7
1974	2,779	1.5
1975	4,426	2.5
1976	5,116	3.1
1977	5,078	3.4
1978	6,808	4.6
1979	7,426	6.4
1980	7,309	8.8
1981	13,192	13.5
1982	12,858	15.2
1983	7,183	9.6
1984	5,303	8.0
1985	4,883	7.6
1986	4,946	7.0
1987	4,763	6.7
1988	5,224	7.9
1989	6,569	11.5
1990	5,891	11.4
1991	1,343	6.6
1992	1,934	18.7
1993	2,823	46.3
		Continued

Table (A4) Gross Fixed Capital Formation in Iraq ID Billion

	2005 Prices	Current Prices
1994	993	84
1995	621	203
1996	298	80
1997	835	253
1998	1,306	412
1999	1,324	754
2000	1,885	1,465
2001	3,953	2,531
2002	3,195	2,199
2003	5,083	3,151
2004	3,840	2,858
2005	10,182	10,182
2006	12,361	16,911
2007	4,777	7,530
2008	11,376	23,241
2009	8,186	13,471
2010	13,596	26,253
2011	11,982	28,235
2012	15,860	38,140
Annual Rates of Gro	wth	
1970-80	20.2	
1980-02	-9.6	
1980-97	-16.3	
1997-02	34.5	
2002-12	14.3	

Continued Table (A4) ID Billion

Source: UNDESA (2013).

Notes:

- (i) Gross fixed capital formation in constant prices for the period 1968-2014 is not available in World Bank (2015b); the basis of table (A3). Instead, such data is available in UNDESA (2013) in current and 2005 prices for the period 1970-2012.
- (ii) Values in current prices before 2003 in this table differ markedly from available CSO sources. This is due to the procedure adopted by UNDESA, whereby values originally in US\$ are converted into Iraqi Dinars, ID, using market rather than official rate of exchange.
- (iii) Instead of 2012's figure in UNDESA (2013), which is based on preliminary figures from CSO, published in December 2014, the revised figure in CSO (2015c) after converting it from 1988 to 2005 prices, is used instead. The conversion is carried out by applying the growth rate between 2011 and 2012 as reported in CSO (2015c).
- (iv)Average annual rates of growth for the sup-periods are compound rates, estimated using least squares semi-log trend equation for each sub-period.

Appendix (2) Sources and Notes of Tables (1) to (5)

Table (1):

Sources: COSIT, KRSO, WB (2009), CSO, KRSO, WB (2014).

Note: KRG, Kurdistan Regional Government, includes Sulaymania, Erbil, and Duhok.

Table (2):

Sources: calculated from Tables (A1) and (A2) in Appendix (1) after grouping the 18 governorates into the six groups in this table.

Notes:

- (i) Upper Middle includes Salahuldin, Diala, Anbar, Nenawa. Rest of governorates South of Baghdad includes Najaf, Babil, Karbala, Thiqar, Qadisiya, Muthana.
- (ii) Spending at market prices = Consumption + Gross fixed capital formation + Change in stocks.
- (iii) Domestic saving = Investment plus Exports minus Imports plus Net intragovernorates' exchanges. Gross saving = Domestic saving plus Net transfers from abroad. Net Transfers = Income plus Unrequited transfers. See UN (2003).
- (iv) Figures for net incomes and net unrequited transfers (from abroad) are taken from the revised balance of payments 2012; in CBI (2014). Like the distribution of their sum in Table (A2), each is distributed among the six groups of governorates, in this table, according to the governorates' GDPs at market prices in Table (A1), after arranging them in six groups.
- (v) Correlation between spending and GDP is the correlation coefficient calculated for the 18 governorates (i.e. for the two columns titled '*Total Spending*' and '*Gross Domestic Product at market prices*') in Table (A2) rather than for the six groups in this table.

Table (3):

Sources: MoO's website, OPEC (2015), Mehaidi (2006, 2013), EIA (2015), Merza (2014), and direct communications.

Notes:

- (i) TBD, thousand barrels/daily. MCFD, million cubic feet/daily.
- (ii) According to OPEC (2015), crude oil proved reserves in Iraq at the end of 2014 was 143 Billion Barrels, which almost coincide with that of 2013.
- (iii) Our direct communications and other cited references above indicate higher production capacity for Iraq than in EIA (2015, P. 5).
- (iv) Detailed regional distribution of natural gas proved reserves, for Iraq, is only available for end-2011; in IEA (2012, P. 70). For subsequent years, only totals are available. According to OPEC (2015), proved reserves at end-2013 (beginning of 2014) amounted to 3.16 Trillion cubic meters, which is equivalent to 111.5 Trillion cubic feet. Detailed regional distribution at the beginning of 2014, in this table, is obtained by scaling IEA's regional distribution for 2011 to accord with the total reported in OPEC (2015).
- (v) For associated natural gas, production capacities are calculated in proportion to crude oil production capacities, by using gas/oil ratios.
- (vi) According to OPEC (2015) natural gas production in 2014 was 21,853 Million cubic meter/year, MCMY, which is equivalent to 2,115 MCFD. KRG's production is, therefore, estimated as the difference between this number and 1,896 MCFD for the rest of Iraq (reported in MoO's website).

Table (4):

Sources:

- (1) Budgets' figures: tables attached to the federal budget proposals submitted to the *Council of Representatives*, CoRs, for years 2012, 2013, 2014, 2015, and amendments carried out in CoRs.
- (2) Population 2013: based on projecting growth of governorates' population between 2009, in HCGPC (2011), and 2012, in CSO (2014), *Part 2*; <u>www.cosit.gov.iq</u>.

Notes:

- (i) Non-KRG regional budgets include *local governments*, *governorates' councils*, *regional development*, *regional investment commissions*, and *petrodollar* allocations.
- (ii) The draft budget for 2014 was 'agreed to' by the *Finance Committee* in the Council of Representatives. However, due to political differences, in the Council, it was not approved. Consequently, spending in 2014 was carried out in reference to 2013 budget.
- (iii)The approved budget for 2015 includes supplementary allocations which are not reflected in this table. These allocations are activated when higher than expected oil revenues materialize. Moreover, in the text of the budget law total expenditures amounted to ID119,585 Billion while the attached tables to the law indicate a total of ID119,462 Billion; a difference of ID123 Billion. We use the ID119,462 Billion as it is consistent with the details of those attached tables.
- (iv) KRG's 17% allocations are calculated as follows: 17% × (the 'net' minus non-KRG petrodollar and regional development allocations). The 'net' is equal to total expenditures minus sovereign and governance expenditures.

Table (5):

Sources:

- (1) 'Earned income' represents value added (wage and non-wage incomes) figures from CSO (2015c).
- (2) Transfers from federal budget: according to table (9) in CSO, KRSO, WB (2014), P. P. 411-412, transfers and assistance from the federal budget makes about 8.5% of total incomes or 9.6% of earned incomes in 2012. The later percent is multiplied by the total earned income (of wage and non-wage earners in public and private sectors) in able (5) to produce transfers from the federal budget of ID10.2 trillion. This is distributed between wage earners and non-wage earners according to their proportion in total earned incomes.
- (3) Net transfers from abroad: revised balance of payments for 2012 reported in CBI (2014).

Notes:

- (i) Operating surplus in the private sector, in this table, excludes that from ownership of dwellings. The latter is, largely, imputed rather than actual income.
- (ii) Domestic transfers between households are not added to households' incomes because this involves double counting.
- (iii) According to table (9) in CSO KRSO, WB (2014), transfers and assistance to the households from abroad was negligible/zero in 2012. However, the revised balance of payments (BOP) 2012's figures indicate positive net employment incomes and remittances from abroad. The net is placed in the first column. It is worth noting that BOP's figures do not show the return from private investment abroad, which is believed to be very small.