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Iraq relief and reconstruction costs: An overview

Summary

- **This note makes a first attempt at charting the likely costs of the first three years of Iraqi reconstruction**. But estimates will remain very rough until the costs of reconstruction have been properly determined, post conflict, by a full needs assessment by the International Financial Institutions (IFIs.)

- **Humanitarian relief and physical reconstruction should be viewed as different elements within the same spectrum of assistance**. For instance, early reconstruction priorities (e.g. rebuilding key infrastructure) will be essential for humanitarian assistance to work, and to prevent a descent into dependence. The current Oil-for-food (OFF) programme involves both elements.

- **The UK/US preference is to keep the OFF system to deliver this**. It is an existing, relatively efficient and tested system, and a clear way of ensuring that Iraq's oil is used for the urgent needs of Iraq's people. It is likely that the focus of the programme would be humanitarian relief in Year 1, shifting more towards reconstruction in Years 2-3.

- **In Year 1, humanitarian costs not covered by OFF (assuming it continues) are likely to be in the range of US$2 - US$12 billion**. Costs will tend towards the top of this range if: I) conflict significantly increases humanitarian need (e.g. if Saddam uses WMD in Iraq) or, II) if oil exports are disrupted for a significant period.

- **In Years 2-3 <u>total</u> relief and reconstruction needs** (i.e before Iraq's oil revenues are taken into account) **could be $2 - $15 billion p.a.**. Whilst international precedents suggest an annual range of US$2-8 billion, there would be political pressure to spend as much as OFF does now (if not more), i.e. at least $10 billion, or up to $15 billion.

- **Oil revenues might pick-up, enabling Iraq to pay most of this – but only if oil production and prices are favourable, if Iraq doesn't have to pay its debts, and if oil rehabilitation is cheap.** If oil exports resume in Years 2 and 3, revenues could increase: to US$14-US$27 billion a year (assuming high production and prices), or US$10-15 billion annually (assuming moderate prices and existing output). But heavy war damage to oil infrastructure, a price slump, or slow (and very expensive) oil rehabilitation work would seriously reduce revenues. Ability to contribute to reconstruction would also depend on future decisions about when / by how much Iraq has to service its external debt and honour compensation claims.

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Introduction

1. There are a number of estimates in circulation about the costs of relief / reconstruction in Iraq. Some of these estimates are only partial, assessing the cost of reconstruction of certain sectors (e.g. electricity, water and sanitation), whilst others aim for a more comprehensive overview of total relief / reconstruction costs, based on rebuilding Iraq's capital stock to a pre-determined level of GDP. This note summarises and evaluates this information and provides a range of cost estimates for relief and reconstruction.

2. It should be made clear that any attempt to cost relief / reconstruction can only be highly indicative at this stage, given significant uncertainties about the impact of conflict and hence humanitarian needs and reconstruction priorities. These costs could increase significantly if Saddam uses Chemical and Biological Weapons (CBW) against his own people, or sabotages Iraq's infrastructure. Best practice involves using the IFIs (and primarily the World Bank) to conduct a rigorous needs-assessment, in country, once the conflict is over. Without this, major mistakes can be made about the quantity of resources required. Annex Three provides some background on the needs assessment in the West Bank and Gaza strip, as well as some analysis of the challenges an Iraq needs assessment might face.

3. Possible sources for financing for relief / reconstruction also remain uncertain. The current US /UK approach favours the maintenance and expansion the Oil-for-Food programme (OFF), or equivalent mechanism as the central source of financing for Iraq's post-conflict reconstruction. This would ensure oil revenues are principally channelled into Iraq's own reconstruction. This certainly appears logical for two reasons, I) Any disruption in the administration of OFF could have serious humanitarian consequences, given 60% of the Iraqi population is dependent on OFF supplies, and, II) Iraq's vast oil resources could provide a stable source of finance for years to come. However, total oil revenues potentially available for relief and reconstruction under an OFF-type mechanism, and the speed with which these revenues can be mobilised, depend on several factors:

i) The damage inflicted by conflict to Iraq's oil infrastructure. It is almost certain that conflict is likely to disrupt oil exports for the first few months. In a worst-case scenario, oil revenues could collapse altogether for an unspecified period. (It is unclear whether there is any available funds in the escrow account to tied this situation over.)

ii) Future world oil prices will also determine total revenue available for reconstruction. This is difficult to anticipate given oil price fluctuations are uncertain – and one possibility is that the end of war in Iraq could herald a price slump.

iii) The speed with which new systems for managing OFF's financing and distribution could be established in country during or immediately post conflict. At present only the Iraqi government can approve oil exports

and decide what goods should be ordered for distribution to the Iraqi people. The OFF model would need rapid adjustment and this could only be done with overall Security Council agreement and various resolutions.

iv) Other future liens against Iraq's oil revenues, including repaying its external debt (US$90 billion+) and United Nations Claims Commission (UNCC) reparation claims (claims total US$347 million.) 25% of oil revenues under OFF go to UNCC claims, but none are used to service Iraq's external debts. Any earlier debt claims, or increases in these liens on oil revenue would reduce the extent of possible resources for a reconstruction effort.

4. With the above uncertainties in mind, only a range of estimates can be determined at this stage. These estimates should take into consideration both the likely costs of war and potential oil revenue flows. The costs of war in Iraq may be broken down into 2 categories, I) Humanitarian response, and, ii) Infrastructure reconstruction / support to key economic sectors (which would include institutional development.)

5. From other post-conflict experience, these categories should be treated as a continuum, with the emphasis on humanitarian relief giving way gradually to a reconstruction programme. In practise, early reconstruction priorities (e.g. electricity, water and sanitation) and support to key economic sectors would also serve a humanitarian purpose. This would almost certainly be the case if the substance of a relief / reconstruction package resembled the current format of the OFF (an approach which the US and UK favour), which currently administers both humanitarian items and emergency reconstruction to avoid deterioration of basic infrastructure. Therefore, although this note separates the cost of humanitarian relief (e.g. year one) from reconstruction (e.g. years two and three), in practise, this should be viewed as a complete package over a 3-year period, with relief and reconstruction elements in each year.

Year 1: Primarily humanitarian relief

6. The cost of a humanitarian response can be broken down into two sub-categories, I) Pre-deployment of stocks for essential relief items and stationing emergency response personnel in the region, II) Ongoing humanitarian response during conflict.

7. The UN has placed a cost on pre-deployment of roughly US$124 million for December 2002 to March 2003. This figure is based on a UN inter-agency planning note (14 February 2003.) It is a cumulative figure for the pre-positioning costs of 11 UN agencies, responsible for a humanitarian response during any conflict.

8. The potential cost of ongoing humanitarian relief is not available from UN sources. Humanitarian assistance in Bosnia and Herzegovina totalled US$12-14 billion over a decade. In Iraq's case, the OFF already provides the basis for calculating likely future financing requirements to support

humanitarian relief. Current annual expenditures run at US$10 billion (although these have never been entirely allocated.) The current total cost of the food allocation is US$3 billion annually and the cost of basic service delivery is around US$2 billion (health, education, water and sanitation and electricity.)[1] Other expenditure is on a range of outcomes, including maintenance of oil infrastructure (details in Annex One).

9. If oil revenues were disrupted for 3-6 months, there would be a financing gap of US$2-5 billion over the first year under current OFF expenditure plans. If OFF completely collapsed (e.g. if oil exports cease or OFF distribution infrastructure is not sustained during conflict,) then the cost of ongoing humanitarian needs would rise rapidly. The UN has pointed out that if the OFF system collapsed altogether, there would be a need to provide emergency relief to the bulk of the population (including food providing the food ration to 25m people.) This could be up to, and possibly more than, US$10 billion annually at current expenditure rates. The scale of humanitarian needs would be greatly exacerbated if WMD were to be used / released as a result of casualties and predicted widespread displacement.

Range of additional financing costs (i.e. not financed by OFF): US$2-12 billion for the first year (Lower bound: US$2 billion for pre-positioning + up to 3 months disruption in oil exports, possible upper bound: US$12 billion if there are no oil revenues for 12 months and much higher humanitarian needs over that period.)

Years 2 and 3: Primarily infrastructure reconstruction and support to key economic sectors

10. As noted above, and explained in Annex Three, estimates of reconstruction costs at this stage are always going to be highly indicative, until a full IFI needs-assessment has been done. Some estimates have been done, including those basing cost calculations on a pre-determined GDP target. Nordhaus (2002) for example, calculates the cost of a reconstruction package for Iraq over four years, at between US$1000 - 2000 per head - between US$25-50 billion accordingly.

11. However, setting a pre-determined GDP target does not conform to World Bank practice and would lose important principles of the needs assessment. These principles including the following: efficiency (ensuring the process is demand driven), support to local institutions (supporting and streamlining existing institutional capacity), ensuring continuity between humanitarian and reconstruction / development activities, recognising the nexus between state formation and security, and, placing a central emphasis on private sector regeneration.

12. Furthermore, the US$1000-2000 range is too high by comparison to other post-conflict contexts (e.g. Donors pledged US$15 billion over 10 years

[1] Distribution Plan XIII (Dec 02-June 03) attached at Annex One.
[2] Council on Foreign Relations 2002, " Guiding Principles for US post-conflict policy in Iraq.

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for Afghanistan and US$5.15 billion over five years for the Balkans) and would raise the issue of double standards for the international donor community particularly given Iraq's potential wealth through oil resources.

13. A second approach has been to base indicative resource requirements on international experience and other reconstruction efforts. The international precedents set give a range of US$100 per capita/annum (Lebanon/ Afghanistan), US$233 (East Timor), US$332 (Bosnia) and US$375 (WBGS), for reconstruction assistance.[3] Therefore assuming a range of between US$50 – US$300 (depending on the nature and damage inflicted through conflict) the total cost to the international community of a reconstruction package could be:

Table 1: Potential annual reconstruction costs for Iraq

Per capita cost, per year ($US)	Annual Iraq reconstruction bill ($US bn)
50	1.32
100	2.65
200	5.30
300	7.95

14. This kind of analysis (using international precedent) provides a more reliable range of estimates for likely reconstruction assistance and provide a better indication of what the international community would be likely willing to support. But only a full needs assessment by the IFIs would determine where post-conflict Iraq would fall in this range (or whether the figure was outside this range, either way).

15. A third approach would be to consider the cost of taking the existing OFF programme, and increasing it, in order to provide more help to Iraq than it is currently getting. This is potentially the most relevant method, given the US/ UK preference to develop OFF into a post-conflict relief / reconstruction programme. It also has obvious political and PR attractions. But it should be stressed that reconstruction priorities, and hence the total amount and substance of a post-conflict OFF, would have to be reassessed post-conflict. However, the current precedent set by of US$10 billion annually may be difficult politically to fall below. Therefore, using the current annual resource envelope as a starting point, and if OFF were to expand by up to 50%, reconstruction expenditures could range between US$10-15 billion annually.

Range of financing needs (*without allowing for oil revenues*): US$2 – US$15 billion annually for years 2 and 3. (Lower bound of US$2 billion: based on the lowest international precedent., possible upper bound of US$15 billion: based on increasing current OFF spending by 50%.)

Future oil revenues

[3] World Bank approach paper Nov 2001: Not discounted for net present value.

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16. Whereas the range of cost estimates for humanitarian relief (year one) takes potential oil revenues into account, as OFF is assumed to continue unchanged if it can, the cost of reconstruction (years two and three) does not. This section therefore discusses the potential revenue available for reconstruction from oil exports, which depends on (as noted above) on factors like damage to oil production capacity and future world oil prices.

17. Iraq's oil production has been irregular and limited by damage to oil installations during the Gulf War and by UN sanctions. Modification of sanctions and investment under the OFF has led to significant growth in production in the last five years. The conflict between the UN sanctions committee and GoI over surcharges and strict retroactive pricing have reduced Iraqi oil exports to a minimum of ½ mn b/pd, short of its actual export capacity of 2.2 mn b/pd.[4] Iraqi oil exports under the Oil for food programme are as follows (Mn B/D):[5]

Table 2: Average Iraqi oil production since 2000

Average 2000	Average 2001	Jan-Jul 2002	Sept 2002
1.92	1.71	1.21	1.10

18. Although future oil revenues are hard to predict, a range of hypothetical estimates can be provided through considering oil production capacity / oil price scenarios. Oil company projections indicate that, within 10 years, Iraq has the potential to increase production to between 6-7 million barrels per day. However, it is unlikely that other OPEC countries would allow an increase in Iraq's quota to much above 3.2 million bpd, which could be achievable over a three year period.

19. If oil exports rise from 1.5 million bpd to 3 million bpd over a three-year period, revenues could increase to **US$14 - US$27 billion** annually during that time, assuming an oil price average of US$25 per barrel. This could easily cover the costs of reconstruction.

20. However, this would require immediate and expensive rehabilitation investment in oilfields. Poor maintenance and virtually no new investment for a decade has meant that significant investment would be needed to even stabilise current production levels, and edge it up to 3 million bpd. It is estimated that US$25-40 billion would be needed to increase sustainable production to 4 million bpd over 2-3 years (BP estimate.) The most efficient way to do this would be to bring in foreign oil companies, but this would raise some major political and legal questions about what a transitional government could do. Otherwise, this expenditure might have to come directly from current oil revenues, vastly reducing the amount of revenue available for current reconstruction expenditure.

[4] RIIA: Briefing Paper No. 5, Dec 2002, " The future of Oil in Iraq: Scenarios and Implications."
[5] Source: Middle East Economic Survey, 45:35 2 September 2002 and 45:40 7 October 2002. Note FCO official estimate is shows in certain months oil exports have risen up to 2m bpd.

21. There are also some potentially serious downside risks to this revenue range. First, depending on the damage to oil infrastructure, it may take longer for oil exports to reach the 3 million bpd target.

22. Second, oil prices may fall below the US$25 per barrel to an average price of around US$20 or below. For instance, if oil exports are stabilised at around 1.2 to 1.8 million bpd, and oil prices fall to their long-run average of around US$20 pb, average annual revenue available for reconstruction might only range between **US$10-15 billion** per year over a three year period.

23. In either of these cases, there is a good chance that these revenues could pay a very significant share of reconstruction expenditures, even after other bills have been paid (e.g. for services not covered by OFF, such as military expenditure, especially as substitute revenue will have to be found to replace monetisation).

24. But high state expenditure on oil rehabilitation would severely limit this (as noted above). And there is also a major risk that revenues could fall well short of the projections above. It is not hard to envisage scenarios in which oil infrastructure is very seriously damaged in the war (apparently Saddam's intention), or where rehabilitation and maintenance prove problematic and slow to arrange, or where prices collapse (as the geopolitical risk premium falls out of the price). In such circumstances, oil revenues could be low (including lower than at present) for some time.

25. A third risk that could further reduce the revenue available for conflict, is that there may be other liens on Iraq's oil revenue if UNCC reparation claims are not forgiven and Iraq is asked to immediately honour its debt obligations. Iraq's bilateral debts amount to perhaps $85 billion, with compensation claims several times this (few of which have yet been considered by the UN). This implies the international donor community would have to provide significantly more resources to support the reconstruction effort. HMT's initial assessment is that this is not a particularly significant risk, as Iraq will probably be able to continue in arrears for some time. But in the medium-term, this could become a more complicated issue, with orderly resolution through the Paris Club a key priority.

International burden sharing requires UN cover

26. International burden sharing for relief / reconstruction requires a UN mandate for military engagement and consistent adherence to the UN route. The US will undoubtedly look to the international community for its share of funds. Without a UN mandate however, material help from the international donor community is extremely unlikely. Most notably, the IFIs might resist a renewed engagement in Iraq during the interim regime. It should be noted that even with a UN mandate, it remains unclear how much the EU, UN or International Financial Institutions (IFIs) would be willing or able to contribute. The UK is also resource constrained.

27. UN involvement is also desirable and necessary for rehabilitation and expansion of the oil sector (a particularly sensitive issue if the oil sector is to be developed soon after conflict.) A UN mandate would ensure transparency and legitimacy of the procedures for awarding, accounting and auditing private contracts to reconstruct the oil sector.

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Annex One
OIP expenditure allocations (DP XIII) Dec 02 – June 03

Item	Allocation in US$ Millions (*Country wide)	Allocations for Northern Iraq in US$ millions	Allocations per head of population (US$)	
			C / S	North
Food	1,275	184	63.75	50
Food handling	282	2		
Construction Materials	100	0		
Housing	80	30		
Health	143	20	7.15	5.6
Electricity	272.50	71		
Agriculture				
Agriculture	215.50	36.33		
Irrigation	228.50			
Education				
Education (Primary/ second)	123.53	63.53	6.17	17.6
Higher education	68.32	17.57		
TPT and Tele	243.11	36.11		
WATSAN	115.29	115.29		
GEWS	94.25			
BWSA	150.00			
Labour and Social Affaires	3.00			
Youth and Sport	29.98	4.98		
Industry	210.00			
Information	50.00			
Culture	20.00			
Religious affairs	25.00			
Justice	4.00			
Finance	20.00			
Central Bank	25.00			
Housing settlement and rehabilitation	103.70	103.70		
Mine related activities	25.00	25		
Nutrition	20.52	20.52		
Health Rehabilitation	55.63	55.63		
Special Allocation	343.72			
Sub Total	4,326.89	785.63	183.44	213.31

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Oil	600.00			
Grand Total	4,926.89			

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Annex Two

Iraq: Economic statistics (updated 30/01/03)

	Iraq-wide
GDP (US$bn)	27.9
GDP per head ($US)	$1,052 *(EIU)*
Real GDP (forecast 2003)	-3.5% (from –4.5% in 2002) *(EIU Jan '03)*
Real GDP (forecast 2004)	15% growth (increased oil production & FDI) *(EIU Jan '03)*
Oil prices (forecast 2003)	US$ 24.5 *(EIU Jan '03)*
Daily oil production (forecast 2003)	1.74m barrels a day (11% fall from 2002. This may recover by Q4,'03) *(EIU Jan '03)*
Consumer price inflation (forecast 2003)	80% (from 70% in 2002) *(EIU Jan '03)*
Official exchange rate- Jan '03	ID 0.311= US$1 *(EIU Jan '03)*
Current black market rate – Jan '03	ID 2,000= US$1 *(EIU Jan '03)*
Black market rate(forecast 2003)	ID 2,500 = US$1 *(EIU Jan '03)*
Trade surplus from illegal trade (forecast 2003)	US$ 4.5bn *(EIU Jan '03)*
Current account surplus (forecast for 2003)	US$ 2bn *(EIU Jan '03)*
Export of goods fob (US$) (forecast 2003)	US$ 11.2 bn *(EIU Jan '03)*
Import of goods fob (US$) (forecast 2003)	US$ 6.7 bn *(EIU Jan '03)*
Current account balance (% of GDP) (forecast 2003)	7.9 *(EIU Jan '03)*
External debt (year end US$bn) (forecast 2003)	66.6 *(EIU Jan '03)*
Labour force	4.4. m (1989 est.) *(CIA factbook 2002)*

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Annex Three: IFI Needs Assessments

1. As in other post-conflict contexts, we would recommend that the IFIs engage in a full needs assessment to assess the financial requirements for reconstruction at the earliest possible stage. This assessment would form the basis international donor community's response to demands for a post-conflict reconstruction package.

2. The needs assessments for West Bank and Gaza Strip (WBGS) provides and indication of the likely content information of a similar assessment for post-conflict Iraq – and illustrates how reconstruction priorities (e.g. basic education, key economic sectors) could also serve a humanitarian purpose. The WBGS assessment evaluated damage to infrastructure (water and sanitation, transport, roads, electricity and telecommunication), key economic sectors (e.g. manufacturing, agriculture, mining, services), public buildings (health, education, local government, social and cultural etc) and private buildings (residential, industrial, commercial / industrial etc.) It also provided an overview of impact on government finances, including central and municipal finances, and estimated the overall financial position of the PA. This task was made easier by the fact that the PA already held a substantial amount of this information required and openly co-operated with the IFIs.

3. It is important to note that a needs assessment will be complicated in Iraq's case, given the current lack of reliable data about Iraq's economy, state of infrastructure, and humanitarian conditions. This indicates that the IFIs should begin preparing for this assessment at the earliest opportunity, identifying where the information gaps are and how to address them in preparation for a reconstruction phase. UN cover would be highly desirable / if not mandatory, for IFI engagement in post-war Iraq.

4. A number of claims exist about potential financial requirements for various sectors. These estimates include: US$880 million to fully rehabilitate water and sanitation infrastructure (Office of the Iraq Programme), US$120 for the health sector (USAID), US$20 billion to rebuild Iraq's electrical power system to restore its pre-1990 capacity.[6] A full needs assessment would be able to verify these estimates and place them in the context of an overall reconstruction package.

[6] Council on Foreign Relations 2002, " Guiding Principles for US post-conflict policy in Iraq.