Discounting/Inflation/Preparation of Scheme Costs

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Discounting

Years from the current year	Discount Rate
0-30	3.5%
31-75	3.0%

Current year = The year in which the TUBA run is being carried out.

Data Input 1

Market prices / factor cost

- Be consistent about what unit of account is being used for scheme costs and what you tell TUBA. (ALMOST ALWAYS Factor Cost?)

```
DO_SOM_COSTS
*Type      Mode   Funding       Cost          Price         RPI
  C          1     loc      426641.007       F          181.33
  L          1     loc      128348.422       F          181.33
  S          1     loc       14070.033       F          181.33
  P          1     loc       17415.239       F          181.33
  O          1     loc       44161.587       F          181.33
  M          1     loc      113694.060       F          181.33
  D          1     loc       10000.000       F          181.33

DO_SOM_PROFILE
```

Data Input 2

Risk and Optimism Bias

- Be familiar with webtag 3.5.9
- Apply the recommended OB uplift factors to the risk adjusted transport cost estimate

Data Input 3

Opportunity cost of land.

- On scheme completion, some land may be available for sale – a negative cost in the do something
- But often LAs already own land which could be sold if the scheme did not progress; need to include this revenue in DM
- Even if no resale value, may be opportunity cost use for AST

Real Cost Inflation

- Is it relevant to your scheme?
- How do you project outturn costs?
- Problems with projecting “real inflation”
- How do you apply real cost inflation through TUBA to the BCR?

Real Cost Inflation
Is it relevant to your scheme?

- Webtag 1.4 para 2.2.4 archived: Capital cost estimates should be based on an independent surveyor's report. Costs should be compared against benchmarks and where possible reflect market testing. The time profile and price base for the costs should be clearly outlined. In the bid for LTP funding, promoters should allow for realistic cost inflation between the submission of the appraisal and scheme works and construction and the appraisal costs should reflect this.
- Webtag 3.5.9: still there, though less succinct.
- Up to you: Getting outturn prices right is relevant to getting bid right than for economics.

Real Cost Inflation
How do you project outturn costs?

- Webtag 3.5.9 para 2.1.2
- It is difficult to generalise and suggest inflation rates applicable to all schemes. However, recent experience suggests that wage rate inflation is in the region of 4% and construction cost inflation often ranges between 5% and 7%. Most forecasts suggest that inflation rates in construction industries and wage settlements will continue to outstrip general inflation rate across the economy (RPI for example) for the next five years.
- But it's up to you
- (Tenders received? Any remaining risk, including inflation?)

Problems with projecting “real inflation” 1

- For bid you need outturn costs
- For economics you need real costs
- Real inflation = change in construction outturn costs less general inflation
- What is general inflation?
- We do not have specific guidance, though HMT has RPI assumptions in Pre-Budget Report
- RPI is currently way ahead of CPI and expected to fall to 2.75%

Problems with projecting “real inflation” 2

- If you extrapolate current construction cost indices, but set them against a reducing RPI projection, will introduce high real cost inflation to economics: is this appropriate?
- You need to take a view on which general inflation and what construction cost inflation to use.
- Are your construction cost pressures related a lot / little to general inflation?
- Up to you, though we will consider whether it is reasonable
- No formal guidance: I’d like to see it brought into NATA refresh

Real Cost Inflation
How do you apply it through TUBA to the BCR?

- (Costs include QRA and OB allowance)
- General approach is:
- You input an RPI to tell TUBA the year of the cost estimate
- It can then convert this to 2002 prices (market price conversion etc)
- You input a % profile for each cost item
- It calculates 2002 price for each year
- If you do nothing else, no future cost inflation will be allowed for
- What can you do?

Real Cost Inflation
How do you apply it through TUBA to the BCR? (cont)

£000s				
	2008	2009	2010	Total
Q2 2007 (RPI 206.3)	2400	5700	4300	12400
%	19.35	45.97	34.67	
Convert to 2002 (RPI 176.2)	2050	4868	3673	10591
No real cost increase				

Real Cost Inflation
How do you apply it through TUBA to the BCR? (cont)

£000s				
	2008	2009	2010	Total
Q2 2007 (RPI 206.3)	2400	5700	4300	12400
Construction cost inflation	7%	6%	5%	
General inflation projection	4.3%	4%	4%	
Real inflation	2.59%	1.92%	0.96%	
Cumulative real inflation	2.59%	4.56%	5.56%	
Q2 2007 with real inflation	2462	5960	4539	12961
%	19.00	45.98	35.02	
TUBA converts to 2002 (RPI 176.2)	2103	5090	3877	11070
Capital costs including real cost inflation				

This is for illustrative purposes only: it includes a general inflation assumption higher than HMT's RPI. You (your surveyor) would need to decide whether a lower general inflation affects cost inflation or not.

It does fully: Outturn prices lower, bcr unchanged

Not at all: Outturn prices unchanged, bcr reduces

How do you apply it through TUBA to the BCR? (cont)

webtag proforma from 3.5.9 4.4.1

Appraisal Costs Breakdown *(a)*

Date completed: | **Approval stage sought:**

Scheme:
Option: *(b)*

Price Base | **OB (Inv. Cost)** % *(OBI)* | **OB (Op Cost)** % *(OBO)*

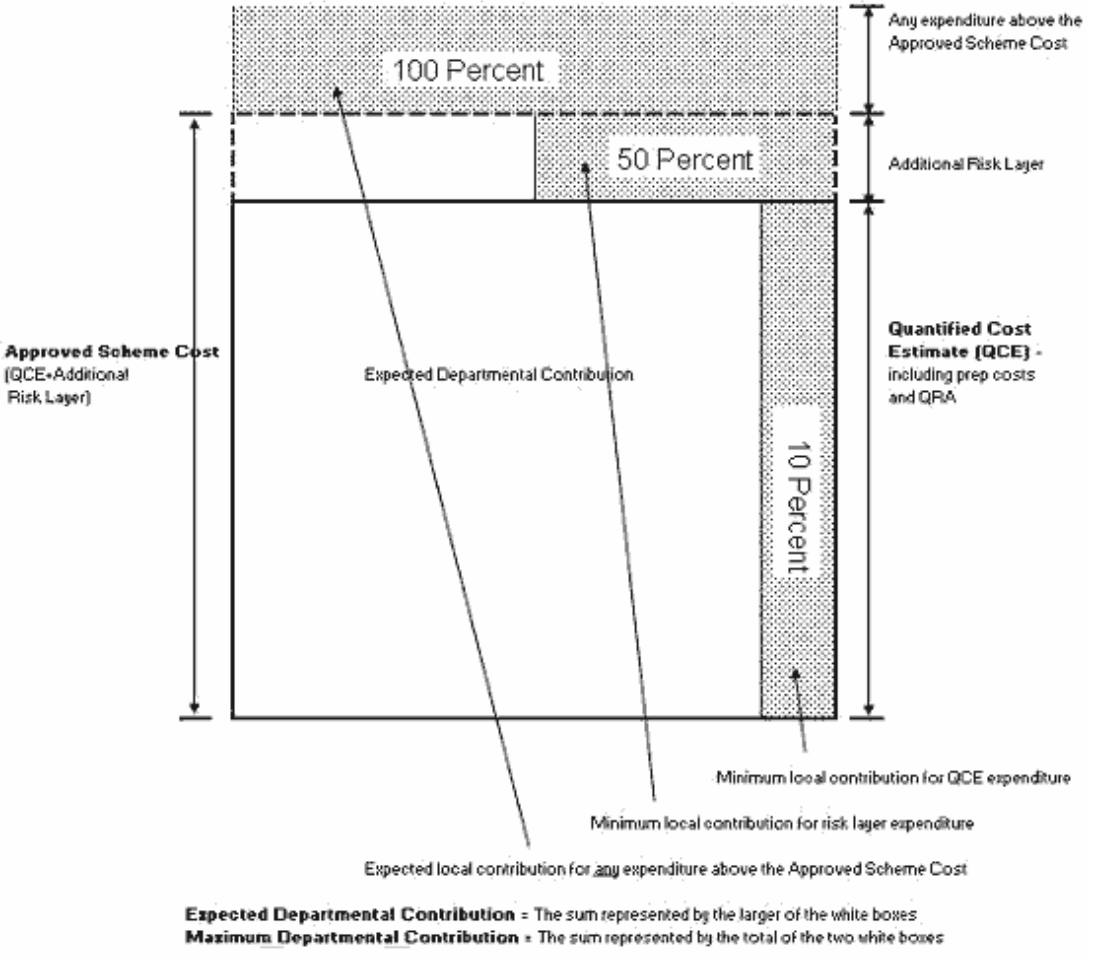
All values in £,000's (thousands)

Calendar Year *(c)*	Cost excluding real cost increases and risk		Contribution due to real cost increases *(d)*	Contribution due to real cost increases *(d)*	Cost inc. real cost increases (Base Cost)	Quantified risk contribution QRA P(mean) *(e)*	*QRA P(80)*	*QRA P(50)*	Risk adjusted cost using QRA P(mean)	*Optional:* Adjustment to cost for appraisal read note *(f)*	Total contributio bias to costs for
	Investment Cost	*Operating Cost*	*from Investment Cost*	*from Operating Cost*							*from investment costs*
	(1)	*(2)*	*(3)*	*(4)*	*(5)=(1)+(2)+(3)+(4)*	*(6)*			*(7)=(5)+(6)*	*(8)*	*(9)=[(1)+(3)+(6)+(8)]*OBI*

DfT Guidance on new schemes:

Importance of getting outturn costs and OB right for bid

http://www.dft.gov.uk/pgr/regional/ltp/major/majorschemeguide/majorguidemain



Reminder

- The QRA / Risk element should also include an allowance for real inflation, reflecting the relevant cost components.

Little things to remember when preparing cost data for TUBA or doing manual calculations

- TUBA assumes calendar years; need to adjust profiles?
- Using qly data – use qly indices/deflators?
- Two years at 3.5% pa is 7.1225% not 7%
- These principles may apply to deflating or discounting
- We do not use RPF anymore