Risk Provision
As with the DFBC, the terms used to describe the provision for cost risk are confusing. A quantified cost risk analysis of the items in the risk register has been undertaken and a 90% confidence figure has been produced. This figure equates to 16% of the current delivery costs, which is red herring as this figure would not increase automatically if the cost estimate increased. The figure should be expressed as discrete figure.

There appears to be confusion over what is allowed for in the quantified risk analysis. Some sections refer to it as only the risks within the risk register (the known risks), yet elsewhere the document refers to an allowance within the quantified cost risk analysis for 'unknown' risk or uncertainty within the cost plan. This should be investigated as there is no allowance for Optimism Bias, which would normally allow for the unknown' risk at this stage of a project. It may be that by using a 90% that they are confident that this higher than normal figure is sufficient to cover both the impact of the risks within the risk register and any uncertainty.

The document also refers to a further 10% of available 'headroom' between the cost estimate plus the risk figure and the available funding. It appears that it is assumed that this will act as a further contingency fund.

Some risks are described as 'shared' between the public and private sectors, such as the cost of maintenance. There is some mention of liability caps being included in the various contracts but no indication is given as to how these are agreed/set or in whose favour they are slanted.

Great emphasis is made of the sophisticated approach that tie have taken to the management of risk, however this APPEARS to only extend to the management of the potential cost impact of the risks within the risk register. Within the Programme section of the document there is no indication of tie's confidence of completing the key project milestones or the whole project on time. There is no evidence of any quantified programme risk analysis being undertaken.

The exact status of the cost risk provision and the programme confidence should be a major concern to both Transport Scotland and City of Edinburgh Council.

Insurance
Some risks have been insured using an OCIP, although it is not clear which ones. The document also states that no decision has`been reached regarding which PI and operational risks will be managed by insurance.

Design
The acceptance of the design by the successful Infraco is dependent on a due diligence exercise that they will undertake. Although the SDS design has been independently validated, there is a significant risk that the due diligence review will identify a need for parts of the design to be reworked. This will delay the design development process.

Not withstanding that considerable effort appears to have gone into producing a robust Tram Design Manual, who holds the risk of shortfalls in this document leading to a design that is not 'fit for purpose'?

Approvals
The public sector retain the 'approvals and consent' risk. There are numerous approvals and consents required, not least of which are those required with Network Rail to protect their assets and manage the interface with the heavy rail network. There is some inference that tie will be seeking to pass some responsibility for managing the relationship with Network Rail back to Transport Scotland. Will failure to agree these matters with Network Rail delay the placing of the Infraco contract?

A further example of the magnitude of this risk is that Scheduled Monument Consent is required for the work required at Victoria Bridge, this will require managing the requirements of Historic Scotland and could import delay and extra design work into the project.

Additional items

- No account has been taken to date of the need to interface the tram network with the proposed new heavy rail station at Gogar.
- Has it been established that the availability of TS funding matches the Infraco payment milestone profile?
- Has the correct inflation index been applied? The document quotes RPIx
- The Vehicle Maintenance Contract is 5 years but the Infraco contract is 15 years, is this an issue?
- Has the requirement to interface with Phase 2 of the Ingliston Park and Ride Scheme (and to a lesser extent the Haymarket Interchange project) been accounted for in the programme?
- There is a risk of further archaeological finds at Gogar, has this been fully understood?
- It is assumed that all the utility diversions under the tram ‘swept path’ will be complete prior to the start of construction, is this valid?