## **Excel Model Design Guidelines**

## https://dwuconsulting.com

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## 1. Purposes

- a. User-friendly
- b. Accuracy
- c. Transparency
- 2. User-friendly benefits ourselves
  - a. Add Table of Content tabs and add separate tabs for each topic
  - b. Separate input from output
  - c. Use color coding macro for easy audit
  - d. Avoid linking to two cells on other tabs
  - e. Add comment whenever necessary
  - f. Link to first hand source
- 3. Accuracy faithfully reflect assumptions
  - a. Three types of errors
    - i. Internal consistency (detectable by outsiders)
    - ii. Compliance with external rules (detectable by knowledgeable outsiders)
    - iii. Reflecting proper assumptions (not easily detectable by anyone)
  - b. Internal consistency & compliance with external rules
    - i. Use consistent formula for all columns, and highlight any exception
    - ii. Set up QC tab as a quality check, linking to each tab
    - iii. Never use circular reference
    - iv. Search for "#REF!", "N/A" and "ERROR" in value
  - c. Reflecting proper assumptions
    - i. Use audited financial statement or historical data to crosscheck
    - ii. Develop key assumption file
    - iii. Use scenario indicator to prevent delivering wrong set of files
- 4. Transparency for all users to easily understand
  - a. Do not link to external files
  - b. Use simple formula for calculation (such as sum, if, sumif, index/match, sumproduct, offset, etc.), and use complicated formula when necessary (such as functionality tabs)
  - c. Show intermediate steps for logical flow
  - d. Do not hide assumptions; list assumption on Assmpt tab
  - e. Do not use range name
- 5. Others
  - a. Remove unnecessary details
  - b. Provide flexibility to extend the model
  - c. Provide flexibility to design scenario analysis