What is a financial statement model (FSM)?

- Historical results and forecasts
  - Income statement
  - Balance sheet
  - Cash flow statement
FSM is a foundational model for common models

Diagram:
- DCF Model
- Financial Statement Model
- LBO Model
- Comps Model
- M&A Model

Wall Street Prep
Effective modeling requires a combination of skills
Formatting

• As important as the substance of your model
• An unformatted model is difficult to understand
• Always assume the model will be sent to a client
# Color coding

- Maintain consistent color conventions
- Boost helps: Auto-color (ctrl alt a)

<table>
<thead>
<tr>
<th>Type of cells</th>
<th>Excel formula</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard-coded numbers (inputs)</td>
<td>=1234</td>
<td>Blue</td>
</tr>
<tr>
<td>Formulas (calculations)</td>
<td>=A1*A2</td>
<td>Black</td>
</tr>
<tr>
<td>Links to other worksheets</td>
<td>=Sheet2!A1</td>
<td>Green</td>
</tr>
<tr>
<td>Links to other files</td>
<td>=[Book2]Sheet1!$A$1</td>
<td>Red</td>
</tr>
<tr>
<td>Links to data providers (i.e. ClQ, Factset)</td>
<td>=ClQ(IQ_TOTAL_REV)</td>
<td>Dark Red</td>
</tr>
</tbody>
</table>
Custom formatting

• Format Cells > Number > Custom
• Multiples (i.e. 8.5x)
• Row headers (use “”)
• Switches
• Positive; Negative; Zero
Formatting

- Maintain standard formatting
- Number formats
- Column / row headers & spacing

Negative numbers shown in parenthesis

EPS and share price data: always carry to 2 decimals ($25.43)

$ sign only shown on first row of worksheet and highlighted financial results
Grouping vs. hiding data

- Avoid hiding rows; Grouping is preferable (shift alt → / shift alt ←)

Inherited a model with hidden rows / columns?
Convert to grouped rows / columns by hitting Ctrl alt h (Boost)
Don’t daisy chain (links to links...)

- More difficult to audit this and get to the end result
- Exceptions for straight lining data across forecast periods

<table>
<thead>
<tr>
<th>Year</th>
<th>Pretax Income</th>
<th>Taxes</th>
<th>Net Income</th>
<th>Tax Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>100.0</td>
<td>35.0</td>
<td>65.0</td>
<td>35.0%</td>
</tr>
<tr>
<td>2010</td>
<td>115.0</td>
<td>40.3</td>
<td>74.8</td>
<td>35.0%</td>
</tr>
<tr>
<td>2011</td>
<td>130.0</td>
<td>45.5</td>
<td>84.5</td>
<td>35.0%</td>
</tr>
<tr>
<td>2012</td>
<td>145.0</td>
<td>50.8</td>
<td>94.3</td>
<td>35.0%</td>
</tr>
<tr>
<td>2013</td>
<td>160.0</td>
<td>56.0</td>
<td>104.0</td>
<td>35.0%</td>
</tr>
<tr>
<td>2014</td>
<td>175.0</td>
<td>61.3</td>
<td>113.8</td>
<td>35.0%</td>
</tr>
<tr>
<td>2015</td>
<td>190.0</td>
<td>66.5</td>
<td>123.5</td>
<td>35.0%</td>
</tr>
</tbody>
</table>
Financial modeling conventions on Wall Street

Many shorter worksheets

Fewer longer worksheets
Equity research reports

• Used widely in IB and asset management; available via Thomson, FactSet, and CIQ

Apple Inc.

(AAPL:NASDAQ)

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Communications Technology: Mobile Devices

Higher Deferred Revenues Obscure Strong Guide, Steady Underlying Growth

Recommendation: We are maintaining our Strong Buy rating on shares of AAPL following the company’s fiscal 4Q13 results, which came in ahead of our expectations on the top and bottom line. December guidance was slightly weaker than we had anticipated, but this appears to be entirely the result of an accounting change whereby Apple will defer $900 million more in revenues than typical due to its decision to bundle software for free with its products. Adjusted for this anomaly, Apple’s guide would have been approximately in line with our expectations and above consensus.

F4Q13 results: Apple reported revenues of $37.5 billion, up 4.2% y/y and slightly above our $36.9 billion estimate. EPS of $8.26 was above our $8.05 estimate. The company
Gathering the appropriate documents

• The junior analyst gathers all the appropriate documents into a coil-bound manual (often called a ‘PIB’ – public information book) and gives copies to the team

Soft copy PIBs

• Use Ctrl f to help you quickly navigate through documents
• With PDFs use Ctrl shift n to go directly to the desired page number
Intangible assets

- Intangible assets (BOP)
- Purchases
  - Current year
- Amortization
  - Current year
  - IS
    - Noncash expense
  - CFS
    - Noncash add-back (CFO)
- Intangible assets (EOP)
Purchases of intangible assets

• The value of intangible assets can only increase via purchases, not write-ups

• Forecasting / modeling best practices
  • Assume purchases in line with historical trends (% of sales or straight-line)
  • If historical trends are lumpy, assume no new purchases
Property, plant & equipment (PP&E)

- Capital expenditures
  - Current year
- Depreciation
  - Current year
  - IS
    - Noncash operating expense
  - CFS
    - Noncash add-back (CFO)

PP&E (BOP) → Capital expenditures → Depreciation → IS → CFS → PP&E (EOP)

Wall Street Prep
PIK interest

• Some loans enable borrowers to defer paying a portion / or all of the interest, by adding it to the principal

• Interest expense still appears on the IS

• Example: A 3 year, $1,000 loan @ 10% PIK:

<table>
<thead>
<tr>
<th>3 year, $1,000 loan @ 10% PIK</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>At maturity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan (BOP)</td>
<td>1,000</td>
<td>1,100</td>
<td>1,210</td>
<td></td>
</tr>
<tr>
<td>PIK interest</td>
<td>100</td>
<td>110</td>
<td>121</td>
<td></td>
</tr>
<tr>
<td><strong>Loan (EOP)</strong></td>
<td><strong>1,100</strong></td>
<td><strong>1,210</strong></td>
<td><strong>1,331</strong></td>
<td><strong>(1,331)</strong></td>
</tr>
<tr>
<td>I/S impact (interest expense)</td>
<td>100</td>
<td>110</td>
<td>121</td>
<td>0</td>
</tr>
<tr>
<td>Cash impact</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td><strong>(1,331)</strong></td>
</tr>
</tbody>
</table>
The revolving credit facility (revolver)

- When there is a surplus, revolver can be paid down...
The revolving credit facility (revolver)

- If revolver is fully paid down and there remains excess surplus, additional surplus grows the cash balance:

![Diagram showing cash flow representation for revolving credit facility (revolver).]

- Cash Surplus: Current period
- Decrease to revolver balance: Current period
- Increase to cash balance: Current period
- CFS: Cash outflow (CFF)
The revolving credit facility (revolver)

- When there is a deficit, must borrow from revolver: