NOTES TO ACCOMPANY VIDEOS
These notes are intended to supplement the videos on ASimpleModel.com. They are not to be used as stand-alone study aids, and are not written as comprehensive overviews of the topic detailed. The purpose of these notes is to provide a tangible collection of the visuals used in the videos with comments highlighting the more important aspects covered.
Whereas the first video focused on the mechanics of adding a cash flow sweep, this 
video will focus on some of the vocabulary and what this means for your model.

The first item addressed in the video is that free cash flow and excess cash flow are not 
the same. In this model, the excess cash flow calculation comes from a term sheet 
provided by a hypothetical lender.

This is similar to how it would take place in a real-life scenario. If you were responsible 
for this acquisition, you would prepare the financial model and a description of the 
target business. This information package would then be provided to a selection of 
lenders of your choosing. The lenders, having evaluated the materials provided, would 
then respond with the terms on which they would be willing to finance the acquisition. 
These terms are submitted on “Term Sheets.”

The term sheets include details such as the amount of the loan (facility size), the term 
of the loan (maturity), the rate at which the loan would be repaid (amortization), and 
interest due. With respect to the latter, this can be both current interest (cash interest), 
and / or PIK interest (Payment In Kind). And of course, per the subject of this video, the 
term sheet will include a superficial overview of the cash flow sweep (cash flow sweep, 
or cash flow recapture, or mandatory prepayment).

You would then run the term sheets from each of the prospective lenders through your 
model to determine the most appropriate capital structure from the options provided. 

With that in mind let’s revisit what is taking place. The model is calculating the lender’s 
required pay down (row 177), and then confirming that there is sufficient free cash 
flow to make that payment (row 178). If there isn't, the model reduces the cash 
payment required (see red box). What you must note is that this is not an option. It is 
structured this way in the model to keep your cash balance positive on the balance 
sheet. But in reality, if the cash payment is reduced to be less than the lender 
calculation for the cash flow sweep, the company is in default. For this reason the 
CFO must manage the business with this payment in mind.
If rows 177 and 178 are not equal, it suggests that the assumptions in your model have created too great a burden on the company’s ability to generate cash. To alleviate this pressure, assumptions should be adjusted. As the video suggests, capital structure is a good place to start*. In the video, senior debt is reduced to zero to increase the cash flow of the business. (You could also reduce the minimum cash balance.)

Of course, as we have demonstrated previously, changing assumptions can have multiple outcomes. Reducing the amount of leverage increases cash flow, but also has the consequence of increasing the amount of equity required to finance the transaction. The video attempts to point out that this change in capital structure reduces the internal rate of return achieved (look at the difference in Equity IRR when this change is made). The benefit, of course, is that of a more conservative capital structure (reduced likelihood of default).

Selecting the appropriate capital structure thus becomes a challenge of measuring the potential for higher returns against the probability of default. Or as you have undoubtedly heard it elsewhere: Risk vs. Reward.

You should also note that, depending on the agreement with the lender involved, you may be able to make up any shortfall with the revolver, but this is on a case by case basis – so it is not always appropriate to model it in.

*When a financial model suggests that a particular capital structure constrains cash to the point of default (or a near default scenario), the temptation to adjust the companies financial performance in response should be avoided. In other words, greater revenues and / or profitability in the future may create sufficient cash flow in your model, but it is likely to be a variable outside of your control. The leverage applied in the transaction, on the other hand, is a variable you can control.
I also want to address changes in working capital (“WC”) and the fact that this is omitted from the Excess Cash flow Calc. While the answer is similar, Excess Cash Flow and Free Cash Flow (“FCF”) are not one in the same, there is an additional explanation:

Clearly the calculation for FCF includes changes in WC. But Excess Cash Flow as defined by the lender omits this variable. The theory is that an increase in WC will be covered by your revolver. The logic isn't perfect, but that’s practice.

I also believe this is done to omit disagreement over the value of WC accounts when payment is due: it’s a simpler calculation (see video). Think about this in a legal context, and imagine how much more difficult it is to settle a disagreement over the amount of the cash flow sweep as the number of variables required to calculate it expand.

This is a perfect segue into the vocabulary mentioned in the video. What follows on the next page is hypothetical language to provide a better idea of what might be found in a credit agreement.

To provide a frame of reference, a credit agreement is likely to be 50 to 100 pages long (or longer). The text provided is not in the order you would find in a credit agreement, nor is it as verbose as you would otherwise expect. For the purpose of this exercise, and to make the language easier to follow, an abridged and reorganized version has been provided.

<table>
<thead>
<tr>
<th>Review of Formulas</th>
<th>Free Cash Flow To Equity:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free Cash Flow:</td>
<td>Net Income</td>
</tr>
<tr>
<td>EBIT (\times (1 - \text{Tax Rate}))</td>
<td>+ Depreciation</td>
</tr>
<tr>
<td>+ Depreciation</td>
<td>+ Amortization</td>
</tr>
<tr>
<td>+ Amortization</td>
<td>- Capital Expenditures</td>
</tr>
<tr>
<td>- Changes in Working Capital</td>
<td>= FCF to Equity</td>
</tr>
<tr>
<td>- Capital Expenditures</td>
<td>+ New Debt</td>
</tr>
<tr>
<td>= Free Cash Flow</td>
<td>- Debt Repayment</td>
</tr>
</tbody>
</table>
What follows is a hypothetical example with language provided entirely for educational purposes. I have added some commentary in green text.

**Section X.X Prepayments.**

**Mandatory Prepayment.**

(i) Borrower shall prepay the Loan annually, within thirty (30) days after delivery of the annual financial statements for each fiscal year pursuant to Section X.X(x), commencing with the fiscal year ending December 31, 20XX, in an amount equal to fifty percent (50%) of Excess Cash Flow for such fiscal year.

Transaction-related legal documents typically start with several pages of definitions, and then address relevant topics. For the purpose of this exercise I reversed the order.

In a credit agreement, the definitions would be presented in alphabetical order. I start with Excess Cash Flow and present the definitions as they are listed in the first entry to make the material easier to read.

"**Excess Cash Flow**" means (a) EBITDA, minus (b) all Tax Payments made during such period, minus (c) Debt Service paid in cash during such period, minus (d) all non-financed Capital Expenditures paid in cash during such period.

"**EBITDA**" means an amount equal to (a) net income determined in accordance with GAAP, plus (b) the sum of the following to the extent deducted in the calculation of net income: (i) interest expense; (ii) income taxes; (iii) depreciation; (iv) amortization; (v) extraordinary losses determined in accordance with GAAP; (vi) other nonrecurring expenses or losses (minus gains) reducing such net income which do not represent a cash item in such period or any future period; (vii) non-cash charges attributable to equity interest or compensation to employees; and (viii) Transaction Costs, minus (c) the sum of the following to the extent included in the calculation of net income: (i) income tax credits; (ii) extraordinary gains determined in accordance with GAAP; and (iii) all nonrecurring, non-cash items increasing net income.

"**Debt Service**" means the sum of all regularly scheduled principal payments and mandatory principal payments on Funded Debt and all Cash Interest Expense payments that are paid or payable during such period in respect of all Debt.

"**Cash Interest Expense**" means total interest expense in respect of all outstanding Debt actually paid or that is payable during such period, including, without limitation, all commissions, discounts, and other fees and charges with respect to letters of credit, but excluding interest expense not payable in cash, all as determined in accordance with GAAP.

"**Capital Expenditure**" means any expenditure for (a) an asset which will be used in a year or years subsequent to the year in which the expenditure is made and which asset is properly classified in relevant financial statements as equipment, real property, a fixed asset or a similar type of capitalized asset in accordance with GAAP or (b) an asset relating to or acquired in connection with an acquired business, and any and all acquisition costs related to (a) or (b) above.
I thought it was worthwhile to include this language because it starts to provide an idea of how transactions that take place automatically in your model actually pan out in real life. For example, interest owed is not automatically paid in the appropriate accounting period as the model suggests. In reality the company receives an invoice from the lender when payment is due. This invoice is typically addressed to the CFO (or someone in the finance department). It is then processed and paid. If your lender is also managing your cash accounts (like a bank), then it is possible to have payments automatically deducted from account balances. Thinking about what actually takes place at a company when account balances change in your model will significantly improve your understanding of how companies operate.

Finally, there is one last thing to consider. In this model the cash flow sweep is calculated and paid down in the same period, which creates the circularity mentioned in the video. In reality this is not possible. You cannot calculate Excess Cash Flow at the conclusion of an accounting period and then go back in time and pay it in that same period. So why build the model this way?

The logic is as follows: The hypothetical credit agreement language calls for the loan to be paid down annually 30 days after the annual financial statements have been delivered. Because it is unlikely that the financial statements would be delivered at the close of the year (it takes time to close the books), you would expect this payment to land sometime between the third and fifth months of the following year. So in real life the excess cash flow payment for “Year 1” would be made between the third and fifth months of “Year 2.” In an annual model, because the timing of this payment is closer to the Year 1 year-end balance sheet, the payment is reflected in Year 1 instead of in Year 2.

It is also a more conservative approach since the company does not enjoy the benefit of that cash on its balance sheet for a longer period of time. (At the conclusion of Year 1 a responsible CFO would have an estimate of this cash outflow.)

To demonstrate how this calculation might be reflected in a monthly or quarterly model, the additional tab titled “FINAL (Timing Change)” was included. On this tab the cash flow sweep payment calculated is paid in the accounting period that follows. In this fashion the model can be built without the circularity.