

Projecting Financial Statements

THE CASH FLOW STATEMENT

The Cash Flow Statement

Projecting Remaining B/S Items

Projecting Cash, Debt, and Equity

- The Cash Flow Statement (CF/S) is needed to project the three remaining B/S items – **Cash, Debt, and Equity**
- We need the CF/S to track all cash changes occurring on the Model P&L and Model B/S to ultimately make our Balance Sheet balance.
- The Model P&L already reflects cash-recurring income. Recall we were careful to filter out any non-cash and non-recurring income during our FFO projections
- The only P&L item we have not yet addressed in terms of its cash impact is **Dividends** which we still have to calculate.
- On the other hand, the B/S causes numerous cash-changes that are not yet reflected in our model. These need to be reconciled so that the B/S balances.
- An important rule to correctly track changes in B/S assets and liabilities is:
 - a) When an asset increases there is a **decline in cash** – i.e. an asset increase is a use of cash. Conversely, a decline in an asset is a source of cash – i.e. cash rises when assets decline.
 - b) When a liability increases there is an **increase in cash** – i.e. a liability increase is a source of cash. Conversely, a decline in a liability is a use of cash – i.e. cash declines when liabilities decline.

The Cash Flow Statement

Reconciling Cash Changes on the P&L and B/S

Alstria Model CF/S – Setting up the CF/S

- We set up the CF/S starting with **Net Income** and **Dividend Distributions** (which we still have to calculate) from the Model P&L and tracking changes in each B/S line item

Setting Up the CF/S

Cash Flow Statement	2011E	2012E
Net Income		
Dividend Distributions		
Operating CF after Dividends		
<u>CFs from B/S Changes</u>		
Change in IP		
Change in Equity Investments		
Change in PP&E		
Change in Intangibles, Derivatives and Financial Assets		
Change in Receivables		
Change in Derivatives & Profit Participation Rights		
Change in Other Provisions & Liabilities		
Change in Trade Payables		
Cash Flow from B/S Changes		
Operating CF after DIVs & B/S Changes		

Set up lines to track changes for each B/S item, except for **Cash, Debt, and Equity**

OPERATING CF AFTER DIVIDENDS

The Cash Flow Statement

Reconciling Cash Changes on the P&L and B/S

Alstria Model CF/S – Calculating Dividends

- We next calculate **Dividends** on the P&L based on the **2010A Payout Ratio & 2010A FFO**, link **Dividend Distributions** down to the CF/S and calculate **Operating CF after Dividends**

Calculating Dividends and Operating CF after Dividends

	A	B	C	D	E
1					
2	Alstria Model Income Statement	2009A	2010A	2011E	2012E
3	Rental Income - Organic	102,510	89,094	90,876	94,733
4	<i>Organic rental growth</i>	NM	-13.1%	2.0%	2.0%
5	Rental Income - External	NM	NM	2,000	4,000
6	Total Rental Income	102,510	89,094	92,876	98,733
7	Operating Expenses	(10,433)	(7,250)	(7,326)	(7,541)
8	NOI	92,077	81,844	85,550	91,193
9	<i>NOI Margin</i>	89.8%	91.9%	92.1%	92.4%
10	Corporate Expense	(10,352)	(10,355)	(10,355)	(10,355)
11	Other Expenses & Income, net	(214)	1,655	-	-
12	EBITDA	81,511	73,144	75,195	80,838
13	<i>EBITDA Margin</i>	79.5%	82.1%	81.0%	81.9%
14	D&A	(473)	(570)	(600)	(650)
15	EBIT	81,038	72,574	74,595	80,188
16	Cash Interest Expense, net	(52,117)	(42,887)	(45,000)	(50,000)
17	PBT	28,921	29,687	29,595	30,188
18	Cash Taxes	-	-	-	-
19	Tax Rate	-	-	-	-
20	JV Income & Other	(264)	(31)	(1,484)	363
21	Add back: D&A	473	570	600	650
22	FFO	29,130	30,226	28,711	31,201
23	Shares Outstanding (average)	56,833	57,525	57,525	57,525
24	FFO per Share	€0.51	€0.53	€0.50	€0.54
25	Dividends	€0.52	€0.50	€0.47	€0.52
26	Payout Ratio	101%	95%	95%	95%
27					
114	Cash Flow Statement			2011E	2012E
115	Net Income			28,111	30,551
116	Dividend Distributions			(27,321)	(29,690)
117	Operating CF after Dividends			790	861

The Cash Flow Statement

Reconciling Cash Changes on the P&L and B/S

Alstria Model CF/S – Calculating Operating Cash Flow After Dividends

- We next calculate **Dividend Distributions** from **Dividends** and **Shares Outstanding** and net this against **Net Income** on the CF/S to derive **Operating Cash Flow After Dividends**

Calculating Operating Cash Flow After Dividends

D115		=D22-D21		D	E
1					
2	Alstria Model Income			2011E	2012E
3	Rental Income - Organic			90,876	94,733
4	Organic rental growth			2.0%	2.0%
5	Rental Income - External			2,000	4,000
6	Total Rental Income			92,876	98,733
7	Operating Expenses			(7,326)	(7,541)
8	NOI			85,550	91,193
9	NOI Margin			92.1%	92.4%
10	Corporate Expense			(10,355)	(10,355)
11	Other Expenses & Interest			-	-
12	EBITDA			75,195	80,838
13	EBITDA Margin			81.0%	81.9%
14	D&A			(600)	(650)
15	EBIT			74,595	80,188
16	Cash Interest Expense			(45,000)	(50,000)
17	PBT			29,595	30,188
18	Cash Taxes			-	-
19	Tax Rate			-	-
20	JV Income & Other			(1,484)	363
21	Add back: D&A			600	650
22	FFO			28,711	31,201
23	Shares Outstanding			57,525	57,525
24	FFO per Share			€0.50	€0.54
25	Dividends			€0.47	€0.52
26	Payout Ratio			95%	95%
27					
114	Cash Flow Statement				
115	Net Income			28,111	30,551
116	Dividend Distributions			(27,321)	(29,690)
117	Operating CF after Dividends			790	861

① Link **2011E Net Income** on Model P&L to CF/S:

$$28,711 - 600 = 28,111$$

⇔

$$D115 = D22 - D21$$

② Calculate **2011E Dividend Distributions**:

$$- €0.47 \times 57,525 = (27,321)$$

⇔

$$D116 = - D25 \times D23$$

③ Calculate **2011E Operating CF after Dividends**:

$$28,111 - 27,321 = 790$$

⇔

$$D117 = \text{SUM}(D115:D116)$$

④ Copy across to 2012E

CALCULATING CHANGES IN B/S ASSETS & LIABILITIES

The Cash Flow Statement

Reconciling Cash Changes on the P&L and B/S

Alstria Model CF/S – Calculating Changes in B/S Assets & Liabilities

- We now calculate changes for all B/S assets & liabilities on the CF/S. Recall, a positive move in an asset leads to a negative CF. A positive move in liability leads to a positive CF.

Calculating Changes for B/S Assets

	2010A	2011E	2012E
28 Alstria Model Balance Sheet			
29 Investment Property	1,349,000	1,421,500	1,494,000
30 Equity Investments (JVs)	32,385	30,901	31,264
31 PP&E	7,826	10,257	12,569
32 Intangibles, Derivatives and Financial Assets	18,116	18,116	18,116
33 Receivables	14,221	14,825	15,760
34 Cash	120,788		
35 Total Assets	1,542,336	1,495,599	1,571,709
36			
37 Debt	794,206		
38 Derivatives & Profit Participation Rights	43,204	43,204	43,204
39 Other Provisions & Liabilities	9,494	9,593	9,875
40 Trade Payables	3,024	3,056	3,145
41 Total Liabilities	849,928		
42 Equity	692,408		
43 Total Liabilities & Equity	1,542,336		
45			
114 Cash Flow Statement		2011E	2012E
115 Net Income		28,111	30,551
116 Dividend Distributions		(27,321)	(29,690)
117 Operating CF after Dividends		790	861
119 <i>CFs from B/S Changes</i>			
120 Change in IP		(72,500)	(72,500)
121 Change in Equity Investments		1,484	(363)
122 Change in PP&E		(2,431)	(2,312)
123 Change in Intangibles, Derivatives and Financial Assets		-	-
124 Change in Receivables		(604)	(935)
125 Change in Derivatives & Profit Participation Rights		-	-
126 Change in Other Provisions & Liabilities		99	282
127 Change in Trade Payables		32	90
128 Cash Flow from B/S Changes		(73,920)	(75,739)
130 Operating CF after DIVs & B/S Changes		(73,130)	(74,878)

The Cash Flow Statement

Reconciling Cash Changes on the P&L and B/S

Alstria Model CF/S – Calculating Changes in B/S Assets & Liabilities

- We start with changes to B/S assets: rises in assets = neg. CFs; declines in assets = pos. CFs.
NOTE: Change in PP&E thus nets a *negative CF for the rise in PP&E* (i.e. **PP&E Additions**) against a *positive CF for the decline in PP&E* (i.e. **D&A**). In this way, the CF/S adds back the non-cash **D&A** by which **Net Income** (the first line of the CF/S) was previously reduced. CF/S lines are set up in the same order as B/S assets to facilitate copying formulas.

Calculating Changes for B/S Assets

D120		fx		=- (D29-C29)				
28	Alstria Model Balance							
29	Investment Property	2010A	2011E	2012E				
30	Equity Investments (J	1,349,000	1,421,500	1,494,000				
31	PP&E	32,385	30,901	31,264				
32	Intangibles, Derivativ	7,826	10,257	12,569				
33	Receivables	18,116	18,116	18,116				
34	Cash	14,221	14,825	15,760				
35	Total Assets	120,788						
36		1,542,336	1,495,599	1,571,709				
37	Debt	794,206						
38	Derivatives & Profit P	43,204	43,204	43,204				
39	Other Provisions & Li	9,494	9,593	9,875				
40	Trade Payables	3,024	3,056	3,145				
41	Total Liabilities	849,928						
42	Equity	692,408						
43	Total Liabilities & Equi	1,542,336						
45								
114	Cash Flow Statement		2011E	2012E				
115	Net Income		28,111	30,551				
116	Dividend Distributions		(27,321)	(29,690)				
117	Operating CF after Dividends		790	861				
119	<i>CFs from B/S Changes</i>							
120	Change in IP		(72,500)	(72,500)				
121	Change in Equity Investments		1,484	(363)				
122	Change in PP&E		(2,431)	(2,312)				
123	Change in Intangibles, Derivatives and Financial Assets		-	-				
124	Change in Receivables		(604)	(935)				

① Calculate **2011E Change in IP:**
 $-(1,421,500 - 1,349,000) = (72,500)$

↔

D120 = - (D29 - C29)

② Copy down for all B/S assets through **Change in Receivables**

③ Copy across to 2012E

The Cash Flow Statement

Reconciling Cash Changes on the P&L and B/S

Alstria Model CF/S – Calculating Changes in B/S Assets & Liabilities

- Analogously, we calculate changes for B/S liabilities. A positive move in a liability leads to a positive CF. Again, CF/S line items are ordered the same as B/S liabilities.

Calculating Changes for B/S Liabilities

D125		fx		=D38-C38	
	A	B	C	D	E
38	Derivatives & Profit Participation Rights		43,204	43,204	43,204
39	Other Provisions & Liabilities		9,494	9,593	9,875
40			3,024	3,056	3,145
41			849,928		
42			692,408		
43			1,542,336		
45					
114				2011E	2012E
115				28,111	30,551
116				(27,321)	(29,690)
117				790	861
119					
120				(72,500)	(72,500)
121				1,484	(363)
122				(2,431)	(2,312)
123				-	-
124				(604)	(935)
125	Change in Derivatives & Profit Participation Rights			-	-
126	Change in Other Provisions & Liabilities			99	282
127	Change in Trade Payables			32	90
128	Cash Flow from B/S Changes			(73,920)	(75,739)
129					
130	Operating CF after DIVs & B/S Changes			(73,130)	(74,878)

① Calculate **2011E Change in Derivatives & Profit Participation Rights:**
 $(43,204 - 43,204) = 0$
 \Leftrightarrow
 $D125 = (D38 - C38)$

② Copy down for all B/S liabilities through **Change in Trade Payables**

③ Copy across to 2012E

④ Calculate **2011E Cash Flow from B/S Changes:**
 $(72,500) + 1,484 + (2,431) + 0 + (604) + 0 + 99 + 32 = (73,920)$
 \Leftrightarrow
 $D128 = \text{SUM}(D120:D127)$

⑤ Calculate **2011E Operating CF after DIVs & B/S Changes:**
 $790 + (73,920) = (73,130)$
 \Leftrightarrow
 $D130 = D117 + D128$

Copy across

THE CASH AND DEBT SCHEDULES

The Cash Flow Statement

The Cash & Debt Schedules

Alstria Model CF/S – Calculating Cash & Debt Balances

- Having calculated **Operating CF after DIVs & B/S Changes**, **Cash** and **Debt** can be modeled on separate, related schedules. On these schedules, positive CFs either add to **Cash** or go to **Debt** paydown, while negative CFs either reduce **Cash** or add to the **Debt** balance

The Cash & Debt Schedules

	2010A	2011E	2012E
131			
132	Cash Schedule		
133			
134			
135			
136			
137			
138			
139			
140			
141			
142			
143	Debt Schedule		
144			
145			
146			
147			
148			

Set up separate schedules to track **Cash** and **Debt** with line items as shown

The Cash Flow Statement

The Cash & Debt Schedules (cont'd)

Alstria Model CF/S – Calculating Cash & Debt Balances

- We link up to the Cash and Debt Schedules to historical **2010A Cash and Debt** balances from the B/S to the

Calculating Changes for B/S Assets

	2010A	2011E	2012E
28 Alstria Model Balance Sheet			
29 Investment Property	1,349,000	1,421,500	1,494,000
30 Equity Investments (JVs)	32,385	30,901	31,264
31 PP&E	7,826	10,257	12,569
32 Intangibles, Derivatives and Financial Assets	18,116	18,116	18,116
33 Receivables	14,221	14,825	15,760
34 Cash	120,788		
35 Total Assets	1,542,336		
36			
37 Debt	794,206		
38 Derivatives & Profit Participation Rights	43,204	43,204	43,204
39 Other Provision	9,494	9,593	9,875
40 Trade Payables	3,024	3,056	3,145
41 Total Liabilities	849,928		
42 Equity	692,408		
43 Total Liabilities	1,542,336		
131			
132 Cash Schedule			
133 Cash - Beginning			
134 Additions / (Reductions)			
135 Excess Cash / (Cash Shortage)			
136 Minimum Cash			
137 Cash Raised from			
138 Cash Used for Debt Paydown			
139 Cash - End of Period	120,788		
140 Interest Rate on Cash			
141 Interest Income			
142			
143 Debt Schedule			
144 Debt - Beginning of Period			
145 Additions / (Reductions)			
146 Debt - End of Period	794,206		
147 Average Interest Rate			
148 Interest Expense			

① Link **2010A Cash – End of Period** to **2010A Cash** on Model B/S:
C139 = C34

② Link **2010A Debt – End of Period** to **2010A Debt** on Model B/S:
C146 = C37

The Cash Flow Statement

The Cash & Debt Schedules (cont'd)

Alstria Model CF/S – Calculating Cash & Debt Balances

- We calculate the **Excess Cash / (Cash Shortfall)** using CFs calculated on the CF/S. We then choose a **Minimum Cash Balance** below which Alstria's cash balance shouldn't fall

Calculating Excess Cash / (Cash Shortfall)

	A	B	C	D
114	$\text{D133} = \text{C139}$			2011E
115	$\text{D134} = \text{D130}$			28,111
116	$\text{D135} = \text{SUM}(\text{D133:D134})$			(27,321)
117				790
119	$120,788 + (73,130) = 47,658$			
120	$\text{D135} = \text{SUM}(\text{D133:D134})$			
121				
122				
123				
124				
125				
126				
127				
128				
130	Operating CF after DIVs & B/S Changes			(73,130)
131				
132	Cash Schedule			
133	Cash - Beginning of Period			2010A 2011E
134	Additions / (Reductions) from Operations and B/S Changes			120,788
135	Excess Cash / (Cash Shortfall)			(73,130)
136	Minimum Cash Balance			47,658
137	Cash Raised from New Debt Issuance			10,000
138	Cash Used for Debt Paydown			
139	Cash - End of Period			120,788 47,658

① Link 2011E Cash – Beginning of Period to 2010A Cash – End of Period :

D133 = C139

② Link 2011E Additions/(Reductions) from Operations and B/S Changes to Operating CF after DIVs & B/S Changes on CF/S:

D134 = D130

③ Calculate 2011E Excess Cash / (Cash Shortfall):

$120,788 + (73,130) = 47,658$

⇔

D135 = SUM (D133:D134)

④ Input Minimum Cash Balance:

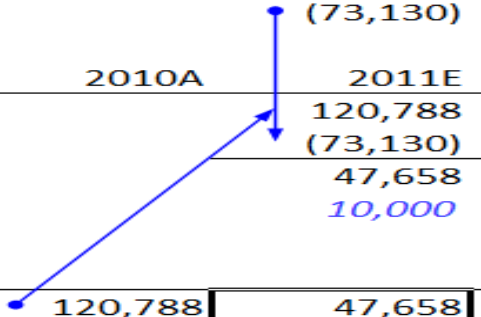
D136 = 10,000

⑤ Calculate 2011E Cash – End of Period:

$47,658 + \text{BLANK} + \text{BLANK} = 47,658$

⇔

D139 = SUM (D135,D137,D138)



The Cash Flow Statement

The Cash & Debt Schedules (cont'd)

Alstria Model CF/S – Calculating Cash & Debt Balances

- **Cash Raised from New Debt Issuance** automatically raises sufficient cash to maintain the **Minimum Cash Balance**
- Note: **Cash Raised from New Debt Issuance** will be:
 - a) **ZERO** if **Excess Cash** is equal to or above the **Minimum Cash Balance** (as in 2011E) or
 - b) **positive** for a negative **Cash Shortfall** or **Excess Cash** below the **Minimum Cash Balance** (as in 2012E)

Cash Raised from New Debt Issuance

Function Library		Defined Names			
D137	fx	$\text{=MAX}(-\text{D135}+\text{D136},0)$			
	A	B	C	D	E
114	Cash Flow Statement			2011E	2012E
115	Net Income			28,111	30,551
116	Dividend Distributions			(27,321)	(29,690)
117	Operating CF after Dividends			790	861
119	<i>CFs from B/S Changes</i>				
120	Change in IP			(72,500)	(72,500)
121	Change in Equity Investments			1,484	(363)
122	Change in PP&E			(2,431)	(2,312)
123	Change in Intangibles, Derivatives and Fi			-	-
124	Change in Receivables			(604)	(935)
125	Change in Derivatives & Profit Participati			-	-
126	Change in Other Provisions & Liabilities			99	282
127	Change in Trade Payables			32	90
128	Cash Flow from B/S Changes			(73,920)	(75,739)
130	Operating CF after DIVs & B/S Changes			(73,130)	(74,878)
131					
132	Cash Schedule			2011E	2012E
133	Cash - Beginning of Period			120,788	47,658
134	Additions / (Reductions) from Operations and B/S Changes			(73,130)	(74,878)
135	Excess Cash / (Cash Shortfall)			47,658	(27,220)
136	<i>Minimum Cash Balance</i>			10,000	10,000
137	Cash Raised from New Debt Issuance			-	37,220
138	Cash Used for Debt Paydown				
139	Cash - End of Period			120,788	47,658
					10,000

Calculate **2011E Cash Raised from New Debt Issuance:**

The *maximum* of
 $\frac{-47,658 + 10,000}{}$
 or ZERO = ZERO



$\text{D137} = \text{MAX}(-\text{D135} + \text{D136}, 0)$

Copy across

The Cash Flow Statement

The Cash & Debt Schedules (cont'd)

Alstria Model CF/S – Calculating Cash & Debt Balances

- If **Cash Raised from New Debt Issuance** (D137) is ZERO this means that there is **Excess Cash** (D135) above the **Minimum Cash Balance** (D136). If a "1" is entered in the **Excess Cash Switch** to activate automatic debt paydown:
 - Cash Used for Debt Paydown** (D138) will use **Excess Cash** over the **Minimum Cash Balance** (D135-D136) to repay debt, **but only**
 - up to a maximum of last year's **Debt – End of Period** (D146). This ensures no more than the total debt is repaid.

Cash Used for Debt Paydown

D138 $=IF(D137=0,-MIN(D135-D136,C146),0)*G138$

	A	B	C	D	E	F	G	H	I
135 Excess Cash / (Cash Shortfall)				47,658			(64,878)		
136 Minimum Cash Balance				10,000			10,000		
137 Cash Raised from New Debt Issuance				-			74,878		
138 Cash Used for Debt Paydown				(37,658)					
139 Cash - End of Period				120,788			10,000		
140 Interest Rate on Cash									
141 Interest Income									
142									
143 Debt Schedule									
144 Debt - Beginning of Period									
145 Additions / (Reductions)									
146 Debt - End of Period									

Excess Cash Switch = 1

Use Excess Cash for Debt Paydown (1= Yes, 0= No)

Annotations:

- If D137 = 0 ⇔ there is excess cash that can be used for debt paydown, then...
- otherwise, if D137 ≠ 0 ⇔ there is no excess cash for debt paydown, then pay down ZERO...
- Entering G138 = 1 turns the Excess Cash Switch on, by multiplying the whole formula x 1
- subtract the lower of (Excess Cash minus Minimum Cash Balance or last year's Debt – End of Period) ⇔ - MIN of (47,658 – 10,000 or 794,206) x 1 = (37,658)

The Cash Flow Statement

The Cash & Debt Schedules (cont'd)

Alstria Model CF/S – Calculating Cash & Debt Balances

- A "0" entered into the **Excess Cash Switch** deactivates automatic debt paydown

Cash Used for Debt Paydown

		Function Library			Defined Names			Formula Auditing		
D138		fx			=IF(D137=0,-MIN(D135-D136,C146),0)*\$G\$138					
	A	B	C	D	E	F	G	H		
132	Cash Schedule		2010A	2011E	2012E					
133	Cash - Beginning of Period			120,788	47,658					
134	Additions / (Reductions) from Operations and B/S Changes			(73,130)	(74,878)					
135	Excess Cash / (Cash Shortfall)			47,658	(27,220)					
136	Minimum Cash Balance			10,000	10,000					
137	Cash Raised from New Debt Issuance			-	37,220					
138	Cash Used for Debt Paydown			-			0			
139	Cash - End of Period		120,788	47,658	10,000					<i>Use Excess Cash for Debt Paydown (1= Yes, 0= No)</i>
140	Interest Rate on Cash									
141	Interest Income									
142										
143	Debt Schedule		2010A	2011E	2012E					
144	Debt - Beginning of Period									
145	Additions / (Reductions)									
146	Debt - End of Period			794,206						

Entering G138 = 0 turns the Excess Cash Switch off, by multiplying the whole formula x 0

Excess Cash Switch
0

- MIN of (47,658 - 10,000 or 794,206) x 0 = ZERO

The Cash Flow Statement

The Cash & Debt Schedules (cont'd)

Alstria Model CF/S – Calculating Cash & Debt Balances

- Formulas can now be copied across and the Debt Schedule can be linked up to the Cash Schedule

Linking Cash and Debt Schedules

D157 fx =D211

	A		D	E	F	G
130	Operating CF after DIVs & B/S Changes		(73,130)	(74,878)		
131						
132	Cash Schedule					
133	Cash - Beginning of Period		120,788	47,658		
134	Additions / (Reductions) from Operations		(73,130)	(74,878)		
135	Excess Cash / (Cash Shortfall)		47,658	(27,220)		
136	Minimum Cash Balance		10,000	10,000		
137	Cash Raised from New Debt Issuance		-	37,220		
138	Cash Used for Debt Paydown		-	-		
139	Cash - End of Period		47,658	10,000		
140	Interest Rate on Cash					
141	Interest Income					
142						
143	Debt Schedule					
144	Debt - Beginning of Period	2010A	794,206	794,206		
145	Additions / (Reductions)		-	37,220		
146	Debt - End of Period		794,206	831,426		

① Link **2011E Debt – Beginning of Period** to **2010A Debt – End of Period**
Period:
 D144 = D146

② Calculate **2011E Additions/(Reductions)** on Debt Schedule:
 $0 + 0 = 0$
 \Leftrightarrow
 D145 = SUM (D137:D138)

③ Calculate **2011E Debt – End of Period**:
 $794,206 + 0 = 794,206$
 \Leftrightarrow
 D146 = SUM (D144:D145)

Excess Cash Switch

0

Use Excess Cash for Debt Paydown (1= Yes, 0= No)

Copy across

The Cash Flow Statement

The Cash & Debt Schedules (cont'd)

Alstria Model CF/S – Calculating Interest Income and Expense

- With the Debt and Cash Schedules complete, we can now calculate **Interest Income** and **Interest Expense**
- The **2011E Average Interest Rate** on debt is assumed at 4.4%, declining by 10-20bp in 2012, depending on whether cash is retained or used to pay down debt. The interest rate on cash is assumed at 0.5%.
- Note: Average interest rates are modeled within the AOX Model, but not discussed in detail due to complexity beyond the scope of this case study. The interested analyst may browse the Interest Rate Schedule for further details.

Interest Expense and Interest Income

		=AVERAGE(D144,D146)*D147						
D148	A	B	C	D	E	F	G	H
125	Change in Derivatives & Profit Participation Rights			-		-		
126	Change in Other Provisions & Liabilities			99		282		
127	Change in Trade Payables			32		90		
128	Cash Flow from B/S Changes			(73,920)		(75,739)		
130	Operating CF after DIVs & B/S Changes			(73,130)		(74,878)		
131								
132	Cash Schedule		2010A	2011E		2012E		
133	Cash - Beginning of Period			120,788		47,658		
134	Additions / (Reductions) from Operations and B/S Changes			(73,130)		(74,878)		
135	Excess Cash / (Cash Shortfall)			47,658		(27,220)		
136	<i>Minimum Cash Balance</i>			10,000		10,000		
137	Cash Raised from New Debt Issuance			-		37,220		
138	Cash Used for Debt Paydown			-		-		
139	Cash - End of Period		120,788	47,658		10,000		
140	Interest Rate on Cash			0.50%		0.50%		
141	Interest Income			421		144		
142								
143	Debt Schedule		2010A	2011E		2012E		
144	Debt - Beginning of Period			794,206		794,206		
145	Additions / (Reductions)			-		37,220		
146	Debt - End of Period		794,206	794,206		831,426		
147	Average Interest Rate			4.4%		4.2%		
148	Interest Expense			34,945		34,289		
149								

① Calculate **2011E Interest Income:**
 $84,223 \times 0.5\% = 421$
 \Leftrightarrow
 $D141 = \text{AVERAGE}(D133, D139) \times D140$

② Calculate **2011E Interest Expense:**
 $794,206 \times 4.4\% = 34,945$
 \Leftrightarrow
 $D148 = \text{AVERAGE}(D144, D146) \times D147$

② Copy across 2011E to 2012E

**FINALIZING LINKS TO THE P&L AND
B/S**

The Cash Flow Statement

Finalizing Links to the P&L and B/S

Alstria Model CF/S – Linking Remaining Items to the P&L

- With all B/S items and their related P&L effects now calculating dynamically, we link **D&A** and **Cash Interest Expense** to the Model P&L completing the **FFO** calculation

Finalizing the Model P&L

	2009A	2010A	2011E	2012E
2 Alstria Model Income Statement				
3 Rental Income - Organic	102,510	89,094	90,876	94,733
4 <i>Organic rental growth</i>	<i>NM</i>	-13.1%	2.0%	2.0%
5 Rental Income - External	<i>NM</i>	<i>NM</i>	2,000	4,000
6 Total Rental Income	102,510	89,094	92,876	98,733
7 Operating Expenses	(10,433)	(7,250)	(7,326)	(7,541)
8 NOI	92,077	81,844	85,550	91,193
9 <i>NOI Margin</i>	89.8%	91.9%	92.1%	92.4%
10 Corporate Expense	(10,352)	(10,355)	(10,355)	(10,355)
11 Other Expenses & Income, net	(214)	1,655	-	-
12 EBITDA	81,511	73,144	75,195	80,838
13 <i>EBITDA Margin</i>	79.5%	82.1%	81.0%	81.9%
14 D&A	(473)	(570)	(689)	(808)
15 EBIT	81,038	72,574	74,506	80,029
16 Cash Interest Expense, net	(52,117)	(42,887)	(34,523)	(34,139)
17 PBT	28,921	29,687	39,984	45,890
18 Cash Taxes	-	-	-	-
19 Tax Rate	-	-	-	-
20 JV Income & Other	(264)	(31)	(1,484)	363
21 Add back: D&A	473	570	689	808
22 FFO	29,130	30,226	39,189	47,062
23 Shares Outstanding (average)	56,833	57,525	57,525	57,525
24 FFO per Share	€0.51	€0.53	€0.68	€0.82
25 Dividends	€0.52	€0.50	€0.65	€0.78
26 Payout Ratio	101%	95%	95%	95%

The Cash Flow Statement

Finalizing Links to the P&L and B/S

Alstria Model CF/S – Linking Remaining Items to the P&L

- With all B/S items and their related P&L effects now calculating dynamically, we link **D&A** to the Model P&L

Linking D&A to the Model P&L

D14 fx =D98

	A	B	C	D	E
3 Rental Income - Organic		102,510	89,094	90,876	94,733
4 <i>Organic rental growth</i>		NM	-13.1%	2.0%	2.0%
5 Rental Income - External		NM	NM	2,000	4,000
6 Total Rental Income		102,510	89,094	92,876	98,733
7 Operating Expenses		(10,433)	(7,250)	(7,326)	(7,541)
8 NOI		92,077	81,844	85,550	91,193
9 <i>NOI Margin</i>		89.8%	91.9%	92.1%	92.4%
10 Corporate Expense		(10,352)	(10,355)	(10,355)	(10,355)
11 Other Expenses & Income, net		(214)	1,655		
12 EBITDA		81,511	73,144	75,195	80,838
13 <i>EBITDA Margin</i>		79.5%	82.1%	81.0%	81.9%
14 D&A		(473)	(570)	(689)	(808)
15 EBIT		81,038	72,574	74,506	80,029
16 Cash Interest Expense, net		(7)	(7)	(45,000)	(50,000)
17 PBT		80,981	72,567	29,506	30,029
18 Cash Taxes				-	-
19 Tax Rate				-	-
20 JV Income & Other			(1)	(1,484)	363
21 Add back: D&A			0	689	808
22 FFO			6	28,711	31,201
23 Shares Outstanding (average)			5	57,525	57,525
24 FFO per Share			3	€0.50	€0.54
25 Dividends			0	€0.47	€0.52
26 Payout Ratio				95%	95%
27					
95 D&A from existing PP&E			(570)	(570)	(570)
96 D&A from 2011E PP&E Additions			NM	(119)	(119)
97 D&A from 2012E PP&E Additions			NM	NM	(119)
98 Total D&A			(570)	(689)	(808)

Copy across

Link 2011E D&A on Model P&L to 2011E Total D&A on PP&E Schedule: D14 = D98

The Cash Flow Statement

Finalizing Links to the P&L and B/S

Alstria Model CF/S – Linking Remaining Items to the P&L

- Completing the Model P&L we calculate **Cash Interest Expense, net** from **Interest Income** and **Interest Expense** projected on the Cash and Debt Schedules

Linking Cash Interest Expense to the Model P&L

D16		=D141-D148			
	A	B	C	D	E
9	NOI Margin	89.8%	91.9%	92.1%	92.4%
10	Corporate Expense	(10,352)	(10,355)	(10,355)	(10,355)
11	Other Expenses & Income, net	(214)	1,655		
12	EBITDA	81,511	73,144	74,506	80,838
13	EBITDA Margin	79.5%	82.1%	81.7%	81.9%
14	D&A	(473)	(570)	(689)	(808)
15	EBIT	81,038	72,574	74,506	80,029
16	Cash Interest Expense, net	(52,117)	(42,887)	(34,523)	(34,139)
17	PBT	28,921	29,687	39,984	45,890
18	Cash Taxes				
19	Tax Rate				
20	JV Income & Other				363
21	Add back: D&A				808
22	FFO				47,062
23	Shares Outstanding (average)				57,525
24	FFO per Share				€0.82
25	Dividends				€0.78
26	Payout Ratio				95%
27					
132	Cash Schedule		2010A	2011E	2012E
133	Cash - Beginning of Period			120,788	48,076
139	Cash - End of Period		120,788	48,076	10,000
140	Interest Rate on Cash			0.50%	0.50%
141	Interest Income			422	145
142					
143	Debt Schedule		2010A	2011E	2012E
144	Debt - Beginning of Period			794,206	794,206
145	Additions / (Reductions)			-	36,192
146	Debt - End of Period		794,206	794,206	830,398
147	Average Interest Rate			4.4%	4.2%
148	Interest Expense			34,945	34,284

Copy across

Calculate 2011E Cash Interest Expense, net:
 $422 - 34,945 = (34,523)$
 \Leftrightarrow
 $D16 = D141 - D148$

The Cash Flow Statement

Finalizing Links to the P&L and B/S

Alstria Model CF/S – Copying Down Formats

- We remove yellow highlights by copying down the format from previously formatted cells

Copying Down Formats

The screenshot shows the Excel 'Paste Special' dialog box. The 'Formats' option is selected under the 'Paste' section. A red box highlights the 'Formats' option. A red arrow points from the 'Formats' option to a cell in the background spreadsheet. Another red arrow points from a text box to the 'Paste Special' dialog box. A third red arrow points from a text box to a cell in the background spreadsheet.

Annotations:

- ① HOLD DOWN SHIFT + ARROW KEY
- ② HOLD DOWN CTRL + C
- ③ Copy Down Format:
HOLD DOWN CTRL & ALT & V
+ T + ENTER
+ F4 to repeat

	A	B	C
Rent			
Orga			
Rent			
Total			
Oper		92,876	98,733
NOI		(7,526)	(7,541)
NOI M			
Corp		85,550	91,193
Othe		92.1%	92.4%
EBIT		(10,355)	(10,355)
EBIT			
D&A			
EBIT			
Cash			
PBT		75,195	80,838
Cash		81.0%	81.9%
Tax P		(689)	(808)
JV In			
Add			
FFO		74,506	80,029
Shar		(34,523)	(34,139)
FFO		39,984	45,890
Divid			
Payo			

The Cash Flow Statement

Finalizing Links to the P&L and B/S

Alstria Model CF/S – Linking Remaining Items to the B/S

- We now link **Cash** and **Debt** from the Cash and Debt Schedules to the Model B/S

Link Cash and Debt to the Model B/S

D34		=D139			
	A	B	C	D	E
28	Alstria Model Balance Sheet		2010A	2011E	2012E
29	Investment Property		1,349,000	1,494,000	1,494,000
30	Equity Investments (JVs)		32,385		31,264
31	PP&E		7,826		12,569
32	Intangibles, Derivatives and Financial Assets		18,116	18,116	18,116
33	Receivables		14,221	14,825	15,760
34	Cash		120,788	48,076	10,000
35	Total Assets		1,542,336		
36					
37	Debt		794,206	794,206	830,398
38	Derivatives & Profit Participation Rights		43,204	43,204	43,204
39	Other Provisions & Liabilities			9,593	9,875
40	Trade Payables			3,056	3,145
41	Total Liabilities				
42	Equity				
43	Total Liabilities & Equity				
131					
132	Cash Schedule			2011E	2012E
133	Cash - Beginning of Period			120,788	48,076
134	Additions / (Reductions) from Operations			(72,712)	(74,268)
135	Excess Cash / (Cash Shortfall)			48,076	(26,192)
136	Minimum Cash Balance			10,000	10,000
137	Cash Raised from New Debt Issuance			-	36,192
138	Cash Used for Debt Paydown			-	-
139	Cash - End of Period		120,788	48,076	10,000
140	Interest Rate on Cash			0.50%	0.50%
141	Interest Income			422	145
142					
143	Debt Schedule		2010A	2011E	2012E
144	Debt - Beginning of Period			794,206	794,206
145	Additions / (Reductions)			-	36,192
146	Debt - End of Period		794,206	794,206	830,398

Copy across

- Link **2011E Cash** on Model B/S to **2011E Cash – End of Period** on Cash Schedule:
D34 = D139
- Link **2011E Debt** on Model B/S to **2011E Debt – End of Period** on Debt Schedule:
D37 = D146

The Cash Flow Statement

Finalizing Links to the P&L and B/S

Alstria Model CF/S – Calculating B/S Totals and Equity

- We calculate **Total Assets** and **Total Liabilities** on the Model B/S
- **Equity**, the final B/S item, rises with Net Income and declines with Dividend Distributions – i.e. with **Operating CF after Dividends** on the CF/S.
- NOTE: **Equity** also fluctuates with various other items, including share issuances, option vesting and non-cash valuation changes. For simplicity, we ignore these effects in our model.

Calculate B/S Totals and Equity

		=C42+D117		
		2010A	2011E	2012E
27				
28	Alstria Model Balance Sheet			
29	Investment Property	1,349,000	1,421,500	1,494,000
30	Equity Investments (JVs)	32,385	30,901	31,264
31	PP&E	7,826	10,257	12,569
32	Intangibles, Derivatives and Fin	18,116	18,116	18,116
33	Receivables	14,221	14,825	15,760
34	Cash	120,788	48,076	10,000
35	Total Assets	1,542,336	1,543,675	1,581,709
36				
37	Debt	794,206	794,206	830,398
38	Derivatives & Profit Participati	43,204	43,204	43,204
39	Other Provisions & Liabilities	9,494	9,593	9,875
40	Trade Payables	3,024	3,056	3,145
41	Total Liabilities	849,928	850,058	886,622
42	Equity	692,408	693,616	695,087
43	Total Liabilities & Equity	1,542,336	1,543,675	1,581,709
44				
114	Cash Flow Statement		2011E	2012E
115	Net Income		38,499	46,254
116	Dividend Distributions		(37,291)	(44,783)
117	Operating CF after Dividends		1,208	1,470

① Calculate **2011E Total Assets:**
 $1,421,500 + 30,901 + 10,257 + 18,116 + 14,825 + 48,076 = 1,543,675$
 \Leftrightarrow
 $D35 = \text{SUM}(D29:D34)$

② Calculate **2011E Total Liabilities:**
 $794,206 + 43,204 + 9,593 + 3,056 = 850,058$
 \Leftrightarrow
 $D41 = \text{SUM}(D37:D40)$

③ Calculate **2011E Equity:**
 $692,408 + 1,208 = 693,616$
 \Leftrightarrow
 $D42 = C42 + D117$

④ Copy across 2011E to 2012E

The Cash Flow Statement

Finalizing Links to the P&L and B/S

Alstria Model CF/S – Calculating B/S Totals and Equity

- The final step is to calculate **Total Liabilities & Equity** and verify that our Model B/S balances
- NOTE: **Total Assets** must equal **Total Liabilities & Equity**, otherwise a mistake has occurred somewhere within the model. Also note that we have left the “Excess Cash Switch” switched to ZERO, meaning that cash is retained instead of using it for debt paydown. If the switch were set to “1”, the model would still balance, but final B/S and P&L amounts would be slightly different.

Verify that the Model B/S Balances

D44 fx =D43-D35

	A	B	C	D	E
27					
28	Alstria Model Balance Sheet		2010A	2011E	2012E
29	Investment Property			1,421,500	1,494,000
30	Equity Investments (JVs)			30,901	31,264
31	PP&E			10,257	12,569
32	Intangibles, Derivatives and Finan			18,116	18,116
33	Receivables			14,825	15,760
34	Cash			48,076	10,000
35	Total Assets			1,543,675	1,581,709
36					
37	Debt			794,206	830,398
38	Derivatives & Profit Participation			43,204	43,204
39	Other Provisions & Liabilities		9,494	9,593	9,875
40	Trade Payables		3,024	3,056	3,145
41	Total Liabilities		849,928	850,058	886,622
42	Equity		692,408	693,616	695,087
43	Total Liabilities & Equity		1,542,336	1,543,675	1,581,709
44	Balance Check		-	-	-

① Calculate **2011E Total Liabilities & Equity:**
 $850,058 + 693,616$
 $= 1,543,675$
 \Leftrightarrow
 $SUM(D41:D42)$

② Calculate **2011E Balance Check:**
 $1,543,675 - 1,543,675 = 0$
 \Leftrightarrow
 $D44 = D43 - D35$

Set up Balance Check

Copy across

The Cash Flow Statement

Complete the Model as Described in Part IV

Open Full Model file to complete cells highlighted in red

Alstria Model Income Statement	2009A	2010A	2011E	2012E
Rental Income - Organic	102,510	89,094	90,876	94,733
<i>Organic rental growth</i>	<i>NM</i>	<i>-13.1%</i>	<i>2.0%</i>	<i>2.0%</i>
Rental Income - External	<i>NM</i>	<i>NM</i>	2,000	4,000
Total Rental Income	102,510	89,094	92,876	98,733
Operating Expenses	(10,433)	(7,250)	(7,326)	(7,541)
NOI	92,077	81,844	85,550	91,193
<i>NOI Margin</i>	<i>89.8%</i>	<i>91.9%</i>	<i>92.1%</i>	<i>92.4%</i>
Corporate Expense	(10,352)	(10,355)	(10,355)	(10,355)
Other Expenses & Income, net	(214)	1,655	-	-
EBITDA	81,511	73,144	75,195	80,838
<i>EBITDA Margin</i>	<i>79.5%</i>	<i>82.1%</i>	<i>81.0%</i>	<i>81.9%</i>
D&A	(473)	(570)	(600)	(650)
EBIT	81,038	72,574	74,595	80,188
Cash Interest Expense, net	(52,117)	(42,887)	(45,000)	(50,000)
PBT	28,921	29,687	29,595	30,188
Cash Taxes	-	-	-	-
Tax Rate	-	-	-	-
JV Income & Other	(264)	(31)	(1,484)	363
Add back: D&A	473	570	600	650
FFO	29,130	30,226	28,711	31,201
Shares Outstanding (average)	56,833	57,525	57,525	57,525
FFO per Share	€0.51	€0.53	€0.50	€0.54
Dividends	€0.52	€0.50	€0.47	€0.52
Payout Ratio	101%	95%	95%	95%

*** Unhide "Full Model - Complete" to compare your results by pressing: ALT + H + O + U + H + Enter*