Projecting Financial Statements

THE BALANCE SHEET

INVESTMENT PROPERTY

Projecting the Balance Sheet
Investment Property

<u>Alstria Model B/S – Projecting Investment Property</u>

- The most important asset for a REIT is its **Investment Property** (IP) portfolio. **IP**:
  a) <u>rises with</u> additions from acquisitions,
  b) <u>rises with</u> CAPEX (capital expenditures),
  c) and <u>declines</u> with reductions from asset sales
- Alstria uses "fair value accounting." That means **IP** assets are periodically revalued by an external appraisal and that value is used on the Balance Sheet.
    - The other method (not used) is "historical cost accounting." Under this method assets are held at historical cost and written down by **D&A**.
    - So, since Alstria uses fair value accounting for **IP**: <u>IP is not affected by **D&A.**</u>
- Some development activity for Alstria is not reflected in **IP**. Specifically, investments & contributions in Alstria's 49%-owned **JVs** increase the **JV** balance, not **IP**. More on this shortly.
- Strictly for **IP,** CAPEX has two effects**:** 1) the <u>B/S effect</u> is reflected in <u>growth of the IP portfolio</u>, 2) the <u>P&L effect</u> is reflected in an increase in the <u>organic rental growth rate</u>.
- Development activity may be more significant for other companies & require greater modeling detail.

Projecting the Balance Sheet

Investment Property

Alstria Model B/S – Projecting Investment Property

	A	B	C	D	E
26	Alstria Model Balance Sheet - Assets		2010	2011E	2012E
27	Investment Property		1,349,000	-	-
28	Equity Investments (JVs)		32,385		
29	PP & E		7		
30	Intangibles, Derivatives and Financial Assets		18		
31	Receivables		14		
32	Cash		120		
33	Total Assets		1,542		
34					
35	Debt		794		
36	Derivatives & Profit Participation Rights		43		
37	Other Provisions		9		
38	Trade Payable		3		
39	Total Liabilities		849		
40	Equity		692		
41	Total Assets &		1,542		
63					
64	BALANCE SHEET				
65	Investment Property	2009A	2010A	2011E	2012E
66	Beginning Balance	NM	NM	1,349,000	
67	Acquisitions, net of Sales	NM	NM		
68	CAPEX	NM	NM		
69	Ending Balance	NM	1,349,000		

Set up Investment Property model section with:
a) **Beginning Balance**
b) **Acquisitions, net of sales**
c) **CAPEX**
d) **Ending Balance**

① Link-up **2010A Ending Balance** in IP Section to **2010A Investment Property** on Model Balance Sheet: C69 = C27

② Link-up **2011E Beginning Balance** in IP Section to 2010A **Ending Balance**: D66 = C69

Projecting the Balance Sheet
Investment Property (cont'd)

Alstria Model B/S – Projecting Investment Property

- To model the growth (or decline) of the **2011E IP** balance, we:
  a. Link the **IP** Calculation to the **Net Acquisitions** calculated previously
  b. Project **CAPEX**. Note: Searching the annual report for "CAPEX" reveals that "in the next two years, the company plans to invest between €40 and €50m in the portfolio" (*Group Management Report, Pg. 10*)

Link IP Calc'n to Net Acquisitions and Project CAPEX

Spreadsheet formula bar: D68 | =AVERAGE(40000,50000)/2

	A	B	C	D
45	**Acquisitions, net of Sales**	2009A	2010A	2011E
46	Acquisition Volume			100,000
47	Acquisition Yield (gross)			6.50%
48	Rental Income Gained, total pe			6,500
49				
50	New Rent from 2011E Acquisiti			3,250
51	New Rent from 2012E Acquisiti			–
52	New Rent from Acquisitions, pe			3,250
53				
54	Sales Volume			50,000
55	Sales Yield (gross)			5.00%
56	Rental Income Lost, total per sa			2,500
57				
58	Rent lost from 2011E Sales (mi			(1,250)
59	Rent lost from 2012E Acquisitio			–
60	Rent lost from Acquisitions, pe			(1,250)
61				
62	Rental Income - External			2,000
63				
64	BALANCE SHEET DRIVERS			
65	**Investment Property**			2011E
66	Beginning Balance	NM	NM	1,349,000
67	Acquisitions, net of Sales	NM	NM	50,000
68	CAPEX	NM	NM	22,500
69	Ending Balance	NM	1,349,000	

① Calculate **2011E Acquisitions, net of Sales** in the **IP** Section:
100,000 – 50,000 = 50,000
⇔
D67 = D46 – D54

② Project annual **CAPEX** at €22.5m (mid-point of guidance):
D68 = AVERAGE(40000,50000)/2 = 22,500

Projecting the Balance Sheet
Investment Property (cont'd)

Alstria Model B/S – Projecting Investment Property

- We then link the **Ending Balances** back up to the Model Balance Sheet and copy over formulas to 2012E

Modeling Growth in IP & Linking Back to Balance Sheet

	D69		f_x	=SUM(D66:D68)				
	A				B	C	D	E
26	Alstria Model Balance Sheet - Assets					2010	2011E	2012E
27	Investment Property					1,349,000	1,421,500	1,494,000
28	Equity Investment							
29	PP & E							
30	Intangibles, Deriva							
31	Receivables							
32	Cash							
33	Total Assets							
34								
35	Debt							
36	Derivatives & Prof							
37	Other Provisions &							
38	Trade Payables							
39	Total Liabilities							
40	Equity							
41	Total Assets & Liab							
63								
64	BALANCE SHEET DRIVERS							
65	**Investment Property**				2009A	2010A	2011E	2012E
66	Beginning Balance				NM	NM	1,349,000	1,421,500
67	Acquisitions, net of Sales				NM	NM	50,000	50,000
68	CAPEX				NM	NM	22,500	22,500
69	Ending Balance				NM	1,349,000	1,421,500	1,494,000

① Calculate 2011E **Ending Balance**:

1,349,000 + 50,000 + 22,500 = 1,421,500

⇔

D69 = SUM(D66:D68)

② Link **2011E Investment Property** on Model Balance Sheet to **2011E Ending Balance** in IP Section:

D27 = D69

③ Copy over 2011E to 2012E

Projecting the Balance Sheet
Investment Property (cont'd)

Alstria Model B/S – Projecting Investment Property

- IP as a function of Net Acquisitions (calculated previously) and CAPEX

Modeling Investment Property

		2010A	2011E	2012E
26	Alstria Model Balance Sheet	2010A	2011E	2012E
27	Investment Property	1,349,000	1,421,500	1,494,000
28	Equity Investments (JVs)	32,385		
29	PP&E	7,826		
30	Intangibles, Derivatives and Financial Assets	18,116		
31	Receivables	14,221		
32	Cash	120,788		
33	Total Assets	1,542,336		
34				
35	Debt	794,206		
36	Derivatives & Profit Participation Rights	43,204		
37	Other Provisions & Liabilties	9,494		
38	Trade Payables	3,024		
39	Total Liabilities	849,928		
40	Equity	692,408		
41	Total Liabilities & Equity	1,542,336		
43				
62				
63				

		2009A	2010A	2011E	2012E
64	BALANCE SHEET DRIVERS				
65	**Investment Property**	2009A	2010A	2011E	2012E
66	Beginning Balance	NM	NM	1,349,000	1,421,500
67	Acquisitions, net of Sales	NM	NM	50,000	50,000
68	CAPEX		NM	22,500	22,500
69	Ending Balance	NM	1,349,000	1,421,500	1,494,000

EQUITY INVESTMENTS (JVS)

Projecting the Balance Sheet
Equity Investments (JVs)

Alstria Model B/S – Projecting Equity Investments

- **Equity Investments** is the line item reflecting Alstria's two 49%-owned JVs.
- Remember from modeling out **JV Income**, only one line item is reported - the **Net Income** at the JV level (or **JV FFO** when adjusted for cash-recurring effects).
  - Line items from **Rental Income** down through **FFO** are not reported separately, but only the **JV FFO**. And that's the line-item that appears.
  - We had to build a *model-in-a-model*, projecting each of the intermediary line-items to ultimately derive **JV FFO**.
- The Balance Sheet process for **Equity Investments** is similar.
  - JVs in reality have numerous assets and liabilities.
  - Note here that **Assets – Liabilities = Equity**
  - …and Equity is the only item that is reported for the JVs.
  - Instead of showing each asset and liability account at the JV level separately, the entire Balance Sheet at the JV-level is rolled up into a single line item on Alstria's consolidated B/S – namely **Equity Investments.**
- Theoretically, modeling **Equity Investments** would thus require laboriously projecting all JV assets & liabilities individually. However…to facilitate modeling, we make a simplifying assumption: JV assets & liabilities stay flat.

Projecting the Balance Sheet
Equity Investments (JVs) – cont'd

Alstria Model B/S – Projecting Equity Investments

- Note that the flat asset and liability assumption is a significant leap of faith which should be verified with management.
    - There could be a material effect on our **FFO** projections, for example if **JV Debt** changes throughout the development process, which in turn would change **JV Interest Expense** and **FFO.**
- Technically, the flat-asset assumption is also incorrect even if Alstria doesn't contribute any further equity or **CAPEX**.
    - From an accounting perspective, the value of the building in the JV would be expected to increase throughout the development process – e.g. when an appraiser revalues the building as development progress is made.
    - However, there would be no cash-impact from these valuation increases and therefore no cash impact on our P&L projections. As such we ignore possible valuation changes at the JV level.
- For our purposes **Equity Investments** will only increase with positive JV FFO as cash income is generated at the JV level and decrease with negative JV FFO as cash losses are generated at the JV level.

Projecting the Balance Sheet
Equity Investments (cont'd)

Alstria Model B/S – Projecting Equity Investments

- We calculate the growth (or decline) of **Equity Investments** as a function of last year's **Equity Investments** balance +/- the **JV FFO** calculated in the JV Investments and Income section

Link IP Calc'n to Net Acquisitions and Project CAPEX

	Get External Data	Connections	Sort & Filter

D28   fx   =C28+D77

	A	B	C	D	E
26	Alstria Model Balance Sheet - Assets		2010	2011E	2012E
27	Investment Property		1,349,000	1,421,500	1,494,000
28	Equity Investments (JVs)		32,385	30,901	31,264
29	PP & E		7,826		
30	Intangibles, Derivatives and Financial Assets		18,116		
31	Receivables		14,221		
32	Cash		20,788		
33	Total Assets		542,336		
34					
35	Debt		794,206		
36	Derivatives &		43,204		
37	Other Provisi		9,494		
38	Trade Payabl		3,024		
39	Total Liabiliti		849,928		
40	Equity		692,408		
41	Total Assets & Liabilities		1,542,336		
42					
71	JV Investments and Income	2009A	2010A	2011E	2012E
72	JV Rental Income (pro-rata)	NM	NM	–	2,253
73	JV EBITDA Margin	NM	NM	–	82.0%
74	JV EBITDA	NM	NM	–	1,847
75	JV Interest Expense (pro-rata)	NM	NM	(1,484)	(1,484)
76	JV Cash Taxes (pro-rata)	NM	NM	–	–
77	JV FFO	NM	NM	(1,484)	363

① Calculate **2011E Equity Investments**:
32,385 + (1,484) = 30,901

⇔

D28 = C28 + D77

② Copy over 2011E (D28) to 2012E (E28)

PROPERTY, PLANT & EQUIPMENT

Projecting the Balance Sheet
Property, Plant & Equipment

- **PP&E** (Property, Plant and Equipment) consists of the assets used by the company in its day-to-day operations
- Unlike **Investment Property** which is continually revalued and held at "fair-value" **PP&E** is subject to **D&A** – a theoretical, non-cash write-down of the assets.
- **PP&E** is not held at fair value and revalued by an appraiser. Rather, **PP&E** is recorded in the financial statements at historical cost and written down each period by a pre-calculated amount of **D&A** (*see annual report pg. 45).*
- For Alstria **PP&E** and **D&A** are relatively minor items but for other companies (especially for asset-heavy businesses) **PP&E** and **D&A** may be more relevant.
- **PP&E** a) grows with **PP&E Additions,** and b) declines with **D&A**
- Technically some other items (not just **PP&E)** are affected by D&A. These include **Intangibles** and certain other balance sheet assets held at historical cost. However, for simplicity we assume the entire amount of **D&A** reduces only the **PP&E** balance.

Projecting the Balance Sheet
Property, Plant & Equipment (cont'd)

Alstria Model B/S – Projecting PP&E

- We set up a schedule to calculate **PP&E** based on **PP&E Additions** and **D&A**

Set up PP&E Model Section and Link to PP&E to Model B/S

D83		fx	=C86		
	A		B	C	D
26	Alstria Model Balance Sheet - Assets			2010A	2011E
27	Investment Property			1,349,000	1,421,500
28	Equity Investments (JVs)			32,385	30,901
29	PP&E			7,826	
30	Intangibles, Derivatives and Financial Assets			18,116	
31	Receivables			14,221	
32	Cash				
33	Total Assets				
82	PP&E			2010A	2011E
83	PP&E - Beginning Balance				7,826
84	PP&E Additions				
85	D&A				
86	PP&E - Ending Balance			7,826	
87					

Set up **PP&E** schedule with:
a) **PP&E - Beginning Balance**
b) **PP&E Additions**
c) **D&A**
d) **PP&E - Ending Balance**

① Link **2010A PP&E - Ending Balance** to **PP&E** on Model B/S:
C86 = C29
② Link **2011E PP&E - Beginning Balance** to **2010A PP&E - Ending Balance**:
D83 = C86

Projecting the Balance Sheet
Property, Plant & Equipment (cont'd)

Alstria Model B/S – Projecting PP&E

- **PP&E Additions** will be driven off the 2010A percentage of **CAPEX**, which we assume stays constant
- **D&A** will consist of:
  a) **D&A** related to the *existing portfolio*
  b) *new* **D&A** from future-year **PP&E Additions**
- We need to estimate the **Depreciation Period** needed to calculate **D&A** on future-year **PP&E Additions**
- We use the average gross balance of **PP&E** reported in Note 10.3 (before subtraction of accumulated depreciation) and reported **D&A** related to those gross **PP&E** balances to back into this **Depreciation Period**

Projecting the Balance Sheet
Property, Plant & Equipment (cont'd)

Alstria Model B/S – Projecting PP&E

- Input **PP&E Additions** and **CAPEX** from annual report and calculate **Depreciation Period**

Calculate PP&E and D&A Drivers from Annual Report

① Input **2010A PP&E – Additions** & **CAPEX** from annual report:
C88 = 2,245 - 25 = 2,219 (*Note 10.3*)
C89 = 16,000 (*pg. 10*)
② Calculate **% PP&E Additions of CAPEX**:
2,219 / 16,000 = 13.9%
⇔
C90 = C88 / C89

Calculate **Depreciation Period** from annual report (*Note 10.3*):
C91 = AVERAGE (6,957,9,176) / 308
= 26.2 yrs

Annual Report Note 10.3

10.3 Property, plant and equipment

EUR k	Total 2010
Acquisition and production cost	
As at Jan. 1, 2010	6,957
Additions	2,244
Disposals	−25
As at Dec. 31, 2010	9,176
Accumulated amortisation, depreciation and write-downs	
As at Jan. 1, 2010	1,060
Additions	308
Disposals	−18
As at Dec. 31, 2010	1,350
Net book values as at Dec. 31, 2010	7,826

Projecting the Balance Sheet
Property, Plant & Equipment (cont'd)

Alstria Model B/S – Projecting PP&E

- We now use the 2010A PP&E-drivers calculated from annual report disclosure to project future **PP&E Additions**
- Note: In the case of Alstria **D&A** and **PP&E** are not major drivers of the earnings profile. However for other companies – in particular those with <u>asset-intensive business models not using fair value accounting</u> – **D&A** may require greater modeling attention. As such, simplifying assumptions such as <u>keeping flat the **% PP&E Additions of CAPEX** and **Depreciation Period**</u> at historical levels should be double-checked and adjusted as necessary

Use 2010A PP&E-Drivers to Project PP&E Additions

Excel screenshot — formula bar: D88 = D89*D90

Callout box:
① Link **2011E CAPEX** to **2011E CAPEX** in **Investment Property** model section:
D89 = D68
② Link **2011E % PP&E Additions of CAPEX** to 2010A and $-lock:
D90 = C90 & *PRESS F4* = C90
③ Link **2011E Depreciation Period** to 2010A and $-lock:
D91 = C91 & *PRESS F4* = C91
④ Calculate **PP&E Additions**:
22,500 x 13.9% = 3,120
⇔
D88 = D89 x D90

	A	B	C	D	E
		2009A	2010A	2011E	2012E
65	**Investment Property**				
66	Beginning	VM		1,349,000	1,421,500
67	Acquisition	VM		50,000	50,000
68	CAPEX	VM		22,500	22,500
69	Ending Balance	000		1,421,500	1,494,000
81					
82	**PP&E**		10A	2011E	2012E
83	PP&E - Beg			7,826	
84	PP&E Additions				
85	D&A				
86	PP&E - End		826		
87					
88	PP&E Additions		2,219	3,120	3,120
89	CAPEX		16,000	22,500	22,500
90	% PP&E Additions of CAPEX		13.9%	13.9%	13.9%
91	Depreciation Period (yrs)		26.2	26.2	26.2

Copy over

Projecting the Balance Sheet
Property, Plant & Equipment (cont'd)

Alstria Model B/S – Projecting PP&E

- Future year **D&A** will consist of:
  - a) the 2010A reported **D&A** of €570k, from existing **PP&E** (which stays constant due to "straight lining"), plus
  - b) new **D&A** related to future-year **PP&E Additions** which we calculate using the previously estimated **Depreciation Period**
- Note: We can $-lock rows by pressing F4 twice while scrolling within a formula. This allows copying down of a formula, keeping only the row references locked while moving column references over.

Set up D&A Model Section

Set up **D&A** model section with:
a) **D&A from existing PP&E**
b) **D&A from 2011E PP&E Additions**
c) **D&A from 2012E PP&E Additions**
d) **Total D&A**

Link 2010A **D&A from existing PP&E**
to **2010A D&A** on Model P&L:
C93 = D14

Calculate Future Year D&A

① Calculate **D&A** from **2011E PP&E Additions** and $-lock-rows:
(3,120) / 26.2 = (119)
⇔
D94 = - D88 & *PRESS F4 TWICE* / D91
& *PRESS F4 TWICE* = - D$88 / D$91
② Copy diagonally down

Projecting the Balance Sheet
Property, Plant & Equipment (cont'd)

Alstria Model B/S – Projecting PP&E

- We now link-up and copy across formulas for **D&A** in each year and sum **Total D&A**

Link Up and Copy Across D&A for Each Year

Projecting the Balance Sheet
Property, Plant & Equipment (cont'd)

Alstria Model B/S – Projecting PP&E

- **PP&E** can now be calculated using **PP&E Additions** and **D&A**

Calculate PP&E from PP&E Additions and

D86	f_x	=SUM(D83:D85)			
	A		B	C	D
82	**PP&E**			2010A	2011E
83	**PP&E - Beginning Balance**				7,826
84	**PP&E Additions**				3,120
85	**D&A**				(689)
86	**PP&E - Ending Balance**				10,257
87					
88	**PP&E Additions**				3,120
89	CAPEX				22,500
90	*% PP&E Additions of CAPEX*				13.9%
91	*Depreciation Period (yrs)*				26.2
92					
93	D&A from existing PP&E				(570)
94	D&A from 2011E PP&E Additions			NM	(119)
95	D&A from 2012E PP&E Additions			NM	NM
96	Total D&A			(570)	(689)

① Link **2011E PP&E Additions** on PP&E-schedule to **PP&E Additions** below:

D84 = D88

② Link **2011E D&A** on PP&E-schedule to **2011E Total D&A** below:

D85 = D96

③ Calculate **2011E PP&E – Ending Balance**:

7,826 + 3,120 + (689) = 10,257

⇔

D86 = SUM (D83:D85)

Projecting the Balance Sheet
Property, Plant & Equipment (cont'd)

Alstria Model B/S – Projecting PP&E

- PP&E can now be linked back up to the Model B/S

Link PP&E Back up to Model B/S

	D29		f_x	**=D86**		
	A		B	C	D	E
26	Alstria Model Balance Sheet - Assets			2010A	2011E	2012E
27	Investment Property			1,349,000	1,421,500	1,494,000
28	Equity Investments (JVs)			32,385	30,901	31,264
29	PP&E			7,826	10,257	12,569
30	Intangibles, Derivatives and Financial Assets			18,116		
31	Receivables			14,221		
32	Cash			120,788		
33	Total Assets			1,542,336		
34						
35	Debt			206		
36	Derivatives & Profit Participation Rights			204		
37	Other Provisions & Liabilties			494		
38	Trade Payables			024		
39	Total Liabilities			928		
40	Equity			408		
41	Total Assets & Liabilities			1,542,336		
42						
82	**PP&E**			2010A	2011E	2012E
83	PP&E - Beginning Balance			*NM*	7,826	10,257
84	PP&E Additions			*NM*	3,120	3,120
85	D&A			*NM*	(689)	(808)
86	PP&E - Ending Balance			7,826	10,257	12,569

Link **2011E PP&E** on Model B/S to PP&E-schedule below:
D29 = D86

Copy over

Projecting the Balance Sheet
Property, Plant & Equipment (cont'd)

Alstria Model B/S – Projecting PP&E

- **PP&E** as a function of **D&A** and **PP&E Additions**

Property, Plant & Equipment

		2010A	2011E	2012E
26	Alstria Model Balance Sheet	2010A	2011E	2012E
27	Investment Property	1,349,000	1,421,500	1,494,000
28	Equity Investments (JVs)	32,385	30,901	31,264
29	PP&E	7,826	10,257	12,569
30	Intangibles, Derivatives and Financial Assets	18,116		
31	Receivables	14,221		
32	Cash	120,788		
33	Total Assets	1,542,336		
34				
35	Debt	794,206		
36	Derivatives & Profit Participation Rights	43,204		
37	Other Provisions & Liabilties	9,494		
38	Trade Payables	3,024		
39	Total Liabilities	849,928		
40	Equity	692,408		
41	Total Liabilities & Equity	1,542,336		
43				
82	**PP&E**	2010A	2011E	2012E
83	PP&E - Beginning Balance	NM	7,826	10,257
84	PP&E Additions	NM	3,120	3,120
85	D&A	NM	(689)	(808)
86	PP&E - Ending Balance	7,826	10,257	12,569
87				
88	PP&E Additions	2,219	3,120	3,120
89	CAPEX	16,000	22,500	22,500
90	% PP&E Additions of CAPEX	13.9%	13.9%	13.9%
91	Depreciation Period (yrs)	26.2	26.2	26.2
92				
93	D&A from existing PP&E	(570)	(570)	(570)
94	D&A from 2011E PP&E Additions	NM	(119)	(119)
95	D&A from 2012E PP&E Additions	NM	NM	(119)
96	Total D&A	(570)	(689)	(808)

NON-CASH ASSETS AND LIABILITIES & OTHER ASSETS AND LIABILITIES

Projecting the Balance Sheet
Non-Cash Assets & Liabilities

Alstria Model B/S – Projecting Non-Cash Assets & Liabilities

- Certain non-cash assets & liabilities have little impact on the company's operations and/or are hard to predict. These B/S items are typically held flat. Specifically, for Alstria we hold constant:
  a)Intangibles, Derivatives and Financial Assets
  b)Derivatives and Profit Participation Rights

Projecting Non-Cash Assets & Liabilities

Excel screenshot. Cell D36 selected, formula bar: =C36

① Link **2011E Intangibles, Derivatives and Financial Assets** to 2010A: D30 = C30

② Link **2011E Derivatives & Profit Participation Rights** to 2010A: D36 = C36

③ Copy over 2011E to 2012E

	A	B	C	D	E
21	Add back: D&A				50
22	FFO				01
23	Shares Outstanding (a				25
24	FFO per Share				54
25					
26	Alstria Model Balance				2E
27	Investment Property				00
28	Equity Investments (J				64
29	PP&E		7,820	10,237	12,569
30	Intangibles, Derivatives and Financial Assets		18,116	18,116	18,116
31	Receivables		14,221		
32	Cash		120,788		
33	Total Assets		1,542,336		
34					
35	Debt		794,206		
36	Derivatives & Profit Participation Rights		43,204	43,204	43,204
37	Other Provisions & Liabilties		9,494		
38	Trade Payables		3,024		
39	Total Liabilities		849,928		

Projecting the Balance Sheet
Other Assets and Liabilities

- **Receivables**, **Trade Payables**, and **Other Provisions & Liabilities** are modeled via relationship to their P&L drivers:

  a) **Receivables** is typically driven off of the
  Days Sales Outstanding (DSO) Ratio = (Receivables / Credit Sales) x 365
  The average number of days a company takes to collect revenue after a sale. A low DSO number suggests a company is collecting debts quickly and efficiently, a high number suggests a company is taking (too) long to collect on debts. For Alstria, we assume that all revenue (rental income) comes in the form of Credit Sales, i.e. Credit Sales = Total Rental Income

  b) **Trade Payables** and

  c) **Other Provisions & Liabilities** can be modeled using the
  Days Payables Outstanding (DPO) Ratio = (Payables / Cost of Sales) x 365
  The average number of days a company takes to pay its creditors. In the case of Alstria, whose main operations consist of rental-income maximization, the "Cost of Sales" concept is different than that of a typical widget-producer. The analogous expense necessary for provision of Alstria's core services is thus "Operating Expenses"

Projecting the Balance Sheet
Other Assets and Liabilities

Alstria Model B/S – Projecting Other Assets and Liabilities

- We set up a model section to project **Receivables** using the Days Sales Outstanding ratio

Calculating Days Sales Outstanding

C102	f_x	=(C100/C101)*365

	A		C
1			
2	Alstria Model Income State		2010A
3	Rental Income - Organic		89,094
4	*Organic rental growth*		*-13.1%*
5	Rental Income - External		*NM*
6	Total Rental Income		89,094
7	Operating Expenses		(7,250)
8	NOI		81,844
9	*NOI Margin*		*91.9%*
25			
26	Alstria Model Balance Shee		2010A
27	Investment Property		1,349,000
28	Equity Investments (JVs)		32,385
29	PP&E		7,826
30	Intangibles, Derivatives and		18,116
31	Receivables		14,221
32	Cash		120,788
33	Total Assets		1,542,336
42			
99	Other Assets and Liabilities		2010A
100	Receivables		14,221
101	Total Rental Income		89,094
102	Days Sales Outstanding (DSO)		*58.3*

① Link **2010A Total Rental Income** in Other Assets and Liabilities schedule to Model P&L:
C101 = C6
② Link **2010A Receivables** in Other Assets and Liabilities schedule to Model B/S:
C100 = C31
③ Calculate **2010A DSO Ratio**:
14,221 / 89,094 x 365 = 58.3
⇔
C102 = (C100/C101) x 365

Projecting the Balance Sheet
Other Assets and Liabilities

Alstria Model B/S – Projecting Other Assets and Liabilities

- Analogous to the Days Sales Outstanding ratio, we calculate the Days Payables Outstanding ratio to project **Trade Payables** & **Other Provisions and Liabilities**

Days Payables Outstanding

C106 f_x =(C104/C105)*365

	A	B	C
			2010A
2	Alstria Model Income Statem		
3	Rental Income – Organic		89,094
4	*Organic rental growth*		-13.1%
5	Rental Income – External		NM
6	Total Rental Income		89,094
7	Operating Expenses		(7,250)
8	NOI		81,844
9	*NOI Margin*		91.9%
25			
26	Alstria Model Balance Sheet		2010A
35	Debt		794,206
36	Derivatives & Profit Participa		43,204
37	Other Provisions & Liabilties		9,494
38	Trade Payables		3,024
39	Total Liabilities		849,928
40	Equity		692,408
41	Total Liabilities & Equity		1,542,336
42			
99	Other Assets and Liabilities		2010A
100	Receivables		14,221
101	Total Rental Income		89,094
102	Days Sales Outstanding (DSO		58.3
103			
104	Trade Payables		3,024
105	Operating Expenses		7,250
106	Days Payables Outstanding (		152.2
107			
108	Other Provisions & Liabilities		9,494
109	Operating Expenses		7,250
110	Days Other Liabilities Outstanding		478.0

Callout box:

① Link **2010A Operating Expenses** in Other Assets and Liabilities schedule to Model P&L:
C105 = - C7
C109 = - C7

② Link **2010A Other Provisions & Liabilities** in Other Assets and Liabilities schedule to Model B/S:
C108 = C37

③ Link **2010A Trade Payables** in Other Assets and Liabilities schedule to Model B/S:
C104 = C38

④ Calculate **2010A DPO Ratio** for **Trade Payables**:
3,024 / 7,250 x 365 = 152.2
⇔
C106 = (C104/C105) x 365

⑤ Copy down **DPO Ratio**: C106 to C110

Projecting the Balance Sheet
Other Assets and Liabilities

Alstria Model B/S – Projecting Receivables

- Holding constant the **2010A DSO Ratio** and applying it to **2011E Total Rental Income** we project **2011E Receivables**

Project Receivables Using DSO Ratio

D100		f_x	=(D101*D102)/365	

	A	B	C	D	E
2	Alstria Model Income Statement	2009A	2010A	2011E	2012E
3	Rental Income - Organic	102,510	89,094	90,876	94,733
4	*Organic rental growth*	NM	-13.1%	2.0%	2.0%
5	Rental Income - Extern		NM	2,000	4,000
6	Total Rental Income		,094	92,876	98,733
7	Operating Expenses		250)	(7,326)	(7,541)
8	NOI		,844	85,550	91,193
9	*NOI Margin*		.9%	92.1%	92.4%
25					
26	Alstria Model Balance S		10A	2011E	2012E
35	Debt		,206		
36	Derivatives & Profit Pa		,204	43,204	43,204
37	Other Provisions & Liab		,494		
38	Trade Payables		,024		
39	Total Liabilities		,928		
40	Equity		,408		
41	Total Liabilities & Equit		,336		
42					
99	Other Assets and Liabilities		2010A	2011E	2012E
100	Receivables		14,221	14,825	15,760
101	Total Rental Income		89,094	92,876	98,733
102	Days Sales Outstanding (DSO)		58.3	58.3	58.3

① Link **2011E Total Rental Income** to Model P&L:
D101 = D6

② Link **2011E DSO Ratio** to 2010A:
D102 = C102

③ Calculate **2011E Receivables**:
(92,876 x 58.3) / 365 = 14,825
⇔
D100 = (D101 x D102) / 365

Copy over

Projecting the Balance Sheet
Other Assets and Liabilities

Alstria Model B/S – Projecting Trade Payables and Other Provisions & Liabilities

- Analogously, we replicate projections for **2011E Trade Payables** and **2011E Other Provisions & Liabilities**

Project Receivables Using DSO Ratio

D104		f_x	=(D105*D106)/365		
	A			C	D	E

		C (2010A)	D (2011E)	E (2012E)
2	Alstria Model Income St	2010A	2011E	2012E
3	Rental Income - Organic	89,094	90,876	94,733
4	*Organic rental growth*	-13.1%	2.0%	2.0%
5	Rental Income - Externa	NM	2,000	4,000
6	Total Rental Income	89,094	92,876	98,733
7	Operating Expenses	(7,250)	(7,326)	(7,541)
8	NOI	81,844	85,550	91,193
9	*NOI Margin*	91.9%	92.1%	92.4%
25				
26	Alstria Model Balance Sh	2010A	2011E	2012E
35	Debt	794,206		
36	Derivatives & Profit Part	43,204	43,204	43,204
37	Other Provisions & Liabi	9,494		
38	Trade Payables	3,024		
39	Total Liabilities	849,928		
40	Equity	692,408		
41	Total Liabilities & Equity	1,542,336		
42				
99	Other Assets and Liabili	2010A	2011E	2012E
100	Receivables	14,221	14,825	15,760
101	Total Rental Income	89,094	9	98,733
102	Days Sales Outstanding	58.3		58.3
103				
104	Trade Payables	3,024	3,056	3,145
105	Operating Expenses	7,250	7,326	7,541
106	Days Payables Outstand	152.2	152.2	152.2
107				
108	Other Provisions & Liabi	9,494	9,593	9,875
109	Operating Expenses	7,250	7,326	7,541
110	Days Other Liabilities Outstanding	478.0	478.0	478.0

Overlay box:

① Link **2011E Total Operating Expenses** to Model P&L:
D105 = - D7
D109 = - D7

② Link **2011E DPO Ratio** to 2010A:
D106 = C106
D110 = C110

③ Calculate **2011E Trade Payables**:
(7,326 x 152.2) / 365 = 3,056
⇔
D104 = (D105 x D106) / 365

④ Calculate **2011E Other Provisions & Liabilities**:
(7,326 x 478.0) / 365 = 9,593
⇔
D108 = (D109 x D110) / 365

Copy over

Projecting the Balance Sheet
Other Assets and Liabilities

Alstria Model B/S – Projecting Trade Payables and Other Provisions & Liabilities

- We can then link **2011E Trade Payables**, **2011E Other Provisions & Liabilities and 2011E Receivables** back up to the B/S

Linking Other Assets and Liabilities to Model B/S

Projecting the Balance Sheet
Other Assets and Liabilities

Alstria Model B/S – Projecting Other Assets & Liabilities

- With **Trade Payables**, **Other Provisions & Liabilities** and **Receivables** modeled, our B/S is complete except for: **Cash**, **Debt**, and **Equity**. These will be modeled in the next section

Model B/S without Cash, Debt, and Equity

G106				
A	B	C	D	E
Alstria Model Balance Sheet		2010A	2011E	2012E
Investment Property		1,349,000	1,421,500	1,494,000
Equity Investments (JVs)		32,385	30,901	31,264
PP&E		7,826	10,257	12,569
Intangibles, Derivatives and Financial Assets		18,116	18,116	18,116
Receivables		14,221	14,825	15,760
Cash		120,788		
Total Assets		1,542,336		
Debt		794,206		
Derivatives & Profit Participation Rights		43,204	43,204	43,204
Other Provisions & Liabilties		9,494	9,593	9,875
Trade Payables		3,024	3,056	3,145
Total Liabilities		849,928		
Equity		692,408		
Total Liabilities & Equity		1,542,336		
Other Assets and Liabilities		2010A	2011E	2012E
Receivables		14,221	14,825	15,760
Total Rental Income		89,094	92,876	98,733
Days Sales Outstanding (DSO)		58.3	58.3	58.3
Trade Payables		3,024	3,056	3,145
Operating Expenses		7,250	7,326	7,541
Days Payables Outstanding (DPO)		152.2	152.2	152.2
Other Provisions & Liabilities		9,494	9,593	9,875
Operating Expenses		7,250	7,326	7,541
Days Other Liabilities Outstanding		478.0	478.0	478.0

Projecting the Balance Sheet
Complete Model B/S as Described in Part III

*Open **BS Projections** file to complete cells highlighted in red*

Alstria Model Balance Sheet	2010A	2011E	2012E
Investment Property	1,349,000		
Equity Investments (JVs)	32,385		
PP&E	7,826		
Intangibles, Derivatives and Financial Assets	18,116		
Receivables	14,221		
Cash	120,788		
Total Assets	1,542,336		
Debt	794,206		
Derivatives & Profit Participation Rights	43,204		
Other Provisions & Liabilties	9,494		
Trade Payables	3,024		
Total Liabilities	849,928		
Equity	692,408		
Total Liabilities & Equity	1,542,336		

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