Initial Buy-in: CPM-based Income Method

Calculating a Lump Sum Buy-in Payment Using Taxpayer's Projections. (units = millions of US dollars)

This Example addresses simultaneous transfers to CFC of: (1) make-sell rights for current product; and (2) "platform" rights, allowing further R&D to be conducted. Half-year convention is used for present value calculations. Terminal value calculations are presented on page 2.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	<u>Year 10</u>	Present Value of Years 1 -10 (A)	Present Value of Terminal Value (B)	TOTAL (A+B=C)
Sales from current and future generations of product	400	450	500	550	600	650	700	750	750	750	3,021	1,325	4,347
operating expenses attributable to product exploitation (routine costs so does not include intangible development costs)	240	270	200	220	260	200	420	450	450	450	4 942	705	2 609
development costs)	240	270	300	330	360	390	420	450	450	450	1,813	795	2,608
Operating Income from exploitation	160	180	200	220	240	260	280	300	300	300	1,209	530	1,739
Intangible Development Costs	40	45	50	55	60	65	70	75	75	75	302	133	435

Lump-Sum Buy-in Calculation		
<u>ltem</u>	<u>Amount</u>	<u>Explanation</u>
PV of CFC's operating income	1,043.25	Total Operating Income * 60% RAB share
less PV of CFC's return to routine costs	-125.19	(Total oper. costs * .08) * 60% RAB share
less PV of CFC's cost sharing payments	<u>-260.81</u>	Total Intang. Dev. Costs * 60% RAB share
equals lump sum buy-in	657.25	(Note: Totals from column (C), above)

Assumptions:

- (1) RAB share of buy-in payor is 60%.
- (2) Risk-adjusted discount rate is 15%.
- (3) CPM return to routine functions is net cost plus 8%.
- (4) Taxpayer projections are reliable.
- (5) Revenues and routine costs are distributed between U.S. parent and CFC pro rata to RAB share.

Exhibit A.1 (cont'd)

Terminal value calculation
Terminal value calculated using Gordon Constant Growth Model, which treats value in Year 10 of payments from Year 11 onward as equal to (payment in Year 11)/(Discount Rate -Growth Rate). In this Exhibit, after Year 10, current dollar sales and all costs are assumed to grow at 0% rate.

		COGS, SG&A &		
	Revenues	other operating expenses	Operating Income	Intang. Devel. Costs
Year 11 amounts, current dollars	750	450	300	75
Terminal value in middle of Year 10	5,000	3,000	2,000	500
PV of terminal value at start of Year 1	1,325.38	795.23	530.15	132.54

Initial Buy-in: CPM-based Income Method

Calculating a Lump Sum Buy-in Payment Using Projections Based on Extrapolation from Actual Experience.

(units = millions of US dollars)

This Example addresses simultaneous transfers to CFC of: (1) make-sell rights for current product; and (2) "platform" rights, allowing further R&D to be conducted. Half-year convention is used for present value calculations. Terminal value calculations are presented on page 2.

	Year 1 (actual)	Year 2 (actual)	Year 3 (actual)	Year 4 (actual)	Year 5 (actual)	Year 6 (extrapo- lated)	Year 7 (extrapo- lated)	Year 8 (extrapo- lated)	Year 9 (extrapo- lated)	Year 10 (extrapo- lated)	Present Value of Years 1 - 10 (A)	Present Value of Terminal <u>Value</u> (B)	TOTAL (A+B=C)
Sales from current and future generations of product	900	1,100	1,300	1,400	1,500	1,575	1,654	1,736	1,823	1,914	6,586	2,207	8,794
COGS, SG&A and other operating expenses attributable to product exploitation (routine costs so does not include intangible development costs)	495	605	715	770	825	866	910	955	1,003	1,053	3,622	1,214	4,836
Operating Income from exploitation	405	495	585	630	675	709	744	781	820	861	2,964	993	3,957
Intangible Development Costs	180	220	195	210	225	236	248	260	273	287	1,072	331	1,403

Lump-Sum Buy-in Calculation		
<u>ltem</u>	<u>Amount</u>	<u>Explanation</u>
PV of CFC's operating		
income	1,582.85	Total Operating Income * 40% RAB share
less PV of CFC's return to routine costs	-96.73	(Total oper. costs * .05) * 40% RAB share
less PV of CFC's cost sharing payments	<u>-561.35</u>	Total Intang. Dev. Costs * 40% RAB share
equals lump sum buy-in	924.77	(Note: Totals from column (C), above)

Assumptions:

- (1) RAB share of buy-in payor is 40%.
- (2) Risk-adjusted discount rate is 18%.
- (3) CPM return to routine function is net cost plus 5%.
- (4) Taxpayer projections are not available or are not reliable.
- (5) Actual results for CSA are available for first 5 years after inception.
- (6) Revenues and routine costs are distributed between U.S. parent and CFC pro rata to RAB share.

Projections:

- (1) Years 1 to 5 are actual results.
- (2) Projections for years 6 to 10 are based on constant 5% growth factor from Year 5.

- (3) R&D costs are set at 15% of gross sales after year 5.(4) Routine costs are assumed to be the same percentage of sales (55%) as in Years 1 to 5.

Exhibit A.2 (cont'd)

Terminal value calculation
Terminal value calculated using Gordon Constant Growth Model, which treats value in Year 10 of payments from Year 11 onward as equal to (payment in Year 11)/(Discount Rate -Growth Rate). In this Exhibit, after Year 10, current dollar sales and all costs are assumed to grow at 0% rate.

	Revenues		Operating Income	Intang. Devel. <u>Costs</u>
Year 11 amounts, current dollars	1,914.42	1,052.93	861.49	287.16
Terminal value in middle of Year 10	10,635.68	5,849.62	4,786.06	1,595.35
PV of terminal value at start of Year 1	2.207.43	1.214.08	993.34	331.11

Initial Buy-in: CPM-based Income Method

Converting a Lump-sum Buy-in Payment (from Exhibit A.2) into a Perpetual Royalty.

(units = millions of US dollars or percentages)

Calculation of lump sum buy-in payment is from Exhbit A.2

	Year 1 (actual)	Year 2 (actual)	Year 3 (actual)	Year 4 (actual)	Year 5 (actual)	Year 6 (extrapo- lated)	Year 7 (extrapo- <u>lated)</u>	Year 8 (extrapo- <u>lated)</u>	Year 9 (extrapo- lated)	Year 10 (extrapo- lated)	Present Value of Years 1 - 10 (A)	Present Value of Terminal <u>Value</u> (B)	TOTAL (A+B=C)
Sales from current and future generations of product	900	1,100	1,300	1,400	1,500	1,575	1,654	1,736	1,823	1,914	6,586	2,207	8,794
COGS, SG&A and other operating expenses attributable to product exploitation (routine costs so does not include intangible development costs)	495	605	715	770	825	866	910	955	1,003	1,053	3,622	1,214	4,836
Operating Income from exploitation	405	495	585	630	675	709	744	781	820	861	2,964	993	3,957
Intangible Development Costs	180	220	195	210	225	236	248	260	273	287	1,072	331	1,403

Determine royalty rate required in perpetuity as % of g	ross sales	
<u>Item</u>	<u>Amount</u>	Explanation
lump sum buy-in payment	<u>924.77</u>	(From Exhibit A.2)
divided by PV of CFC's total sales	3517.45	Total Sales *40% RAB share
equals perpetual royalty rate	26.29%	

<u>Assumptions:</u> (1) For assumptions, See Exhibit A.2.

Exhibit A.4 Initial Buy-in: CPM-based Income Method

Converting a Lump-sum Buy-in Payment (from Exhibit A.2) into a Royalty payable over 10 years. (units = millions of US dollars or percentages)

Calculation of lump sum buy-in payment is from Exhbit A.2

	Year 1 (actual)	Year 2 (actual)	Year 3 (actual)	Year 4 (actual)	Year 5 (actual)	Year 6 (extrapo- lated)	Year 7 (extrapo- <u>lated)</u>	Year 8 (extrapo- <u>lated)</u>	Year 9 (extrapo- lated)	Year 10 (extrapo- lated)	Present Value of Years 1 -10
Sales from current and future generations of product	900	1,100	1,300	1,400	1,500	1,575	1,654	1,736	1,823	1,914	6,586
COGS, SG&A and other operating expenses attributable to product exploitation (routine costs so does not include intangible development costs)	495	605	715	770	825	866	910	955	1,003	1,053	3,622
Operating Income from exploitation	405	495	585	630	675	709	744	781	820	861	2,964
Intangible Development Costs	180	220	195	210	225	236	248	260	273	287	1.072

Determine royalty rate required over 10 years as % of gross	sales	
Item Iump sum buy-in payment divided by PV of CFC's Sales in Years 1 to 10	<u>Amount</u> <u>924.77</u> 2634.48	Explanation (From Exhibit A.2) Sales in years 1-10 *40% RAB share
equals royalty rate payable over 10 years	35.10%	

<u>Assumptions:</u> (1) For assumptions, See Exhibit A.2.

Exhibit A.5 Initial Buy-in: CPM-based Income Method

Arm's Length Range of Results. (units = millions of US dollars)

This Example addresses simultaneous transfers to CFC of: (1) make-sell rights for current product; and (2) "platform" rights, allowing further R&D to be conducted. Half-year convention is used for present value calculations. Ranges calculated on page 2. Terminal value calculated on page 3.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Sales from current and future generations of product	60	65	70	80	92	106	122	140	147	154
COGS, SG&A and other operating expenses attributable to product exploitation (routine costs so does not										
include intangible development costs)	24	26	28	32	37	42	49	56	59	62
Operating Income from exploitation	36	39	42	48	55	63	73	84	88	93
Intangible Development Costs	30	30	21	20	18	16	18	21	22	23

	13% Discour	nt Rate		10% Discou	nt Rate	
	0% Growth F	Rate Post Y	ear 10	5% Growth	Year 10	
		Present		Present		
	Present	Value of		Present	Value of	
	Value of	Terminal		Value of	Terminal	
	Years 1 -10	<u>Value</u>	TOTAL	Years 1 -10	<u>Value</u>	TOTAL
	(A)	(B)	(A+B=C)	(A)	(B)	(A+B=C)
Sales from current and future	. ,	,	,	, ,	,	,
generations of product	533	372	904	610	1,310	1,920
COGS, SG&A and other operating expenses attributable to product						
exploitation (routine costs)	213	149	362	244	524	768
Operating Income from exploitation	320	223	543	366	786	1,152
Intangible Development Costs	132	56	188	146	196	343

Ranges:

 Lump Sum Buy-in payment
 119.07 to 272.57

 Perpetual Royalty Rate
 13.17% to 14.20%

 Royalty Payable over 10 Years
 22.36% to 44.67%

Exhibit A.5 (cont'd)

Calculation of lump sum buy-in payment, perpetual royalty rate and royalty payable over 10 years.

	13% Discount Rate	10% Discount Rate
	0% Growth Rate Post Year 10	5% Growth Rate Post Year 10
Lump-Sum Buy-in Calculation	0% Glowiii Rate Fost Teal 10	5% Glowiii Rale Post Teal To
Lump-Sum Buy-in Calculation		
PV of CFC's operating income	189.88	403.23
less PV of CFC's routine returns	-5.06	-10.75
less PV of cost sharing payments	<u>-65.75</u>	<u>-119.91</u>
equals lump sum buy-in	119.07	272.57
equals fulfip suffi buy-iii	113.07	212.51
Determine royalty rate required in		
perpetuity as % of gross sales		
perpetuity do 70 or gross sales		
Item		
lump sum buy-in payment	119.07	<u>272.57</u>
divided by PV of CFC's total sales	904	1,920
divided by FV of CFC's total sales	904	1,920
equals perpetual royalty rate	13.17%	14.20%
oqualo porpoladi Toyaliy Talo	10111 /0	14.2070
Determine royalty rate required over		
10 years as % of gross sales		
10 yours as 70 or gross saiss		
Item		
lump sum buy-in payment	119.07	272.57
divided by PV of CFC Sales to Year		610
equals royalty rate payable over 10 year	ars 22.36 %	44.67%

Assumptions:

- (1) RAB share of buy-in payor is 35%.
- (2) Risk-adjusted discount rate is 10 to 13%.
- (3) CPM return to routine function is net cost plus 4%.
- (4) Revenues and routine costs are distributed between U.S. parent and CFC pro rata to RAB share.

Projections:

- (1) Projection accepted as reliable (but source not specified).
- (2) Terminal value calculated assuming perpetual growth of either 0% or 5% per annum after year 10.

Note: other combinations of assumptions (10% discount rate and 0% growth rate after Year 10 or 13% discount rate and 5% growth rate after Year 10) produce lump sum buy-in payments and royalty rates that fall within the arm's length range reported above. Therefore, calculations of the lump sum buy-in payment or royalty rates under these assumptions are not reproduced in this exhibit.

Exhibit A.5 (cont'd)

<u>Terminal value calculation</u>
Terminal value calculated using Gordon Constant Growth Model, which treats value in Year 10 of payments from Year 11 onward as equal to (payment in Year 11)/(Discount Rate -Growth Rate).

13% discount rate; 0% growth post Year 10

10% discount rate, 5% growth post Year 10

	COGS, SG&A & other Intang. operating Operating Devel. Revenues expenses Income Costs				Revenues	Intang. Devel. <u>Costs</u>		
Year 11 amounts, current dollars	154.26	61.70	92.56	23.14	161.98	64.79	97.19	24.30
Terminal value in middle of Year 10 PV of terminal value at start of Year 1	1,186.63 371.59	474.65 148.64	711.98 222.96	178.00 55.74	3,239.51 1,309.93	1,295.80 523.97	1,943.71 785.96	485.93 196.49

Initial Buy-in: CPM-based Income Method

Providing separate return to Marketing Intangibles used privately by CFC in exploiting the results of the CSA. (units = millions of US dollars)

This Example addresses simultaneous transfers to CFC of: (1) make-sell rights for current product; and (2) "platform" rights, allowing further R&D to be conducted. Half-year convention is used for present value calculations. Method of calculating terminal value not specified in thie Exhibit.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	<u>Year 10</u>	Present Value of Years 1 -10 (A)	Present Value of Terminal <u>Value</u> (B)	TOTAL (A+B=C)
Sales from current and future generations of product	1,000	1,100	1,200	1,300	1,375	1,444	1,516	1,592	1,671	1,755	8,962	1,500	10,462
COGS, SG&A and other operating expenses attributable to product exploitation (routine costs so does not include intangible development costs)	800	825	840	910	894	938	910	875	919	965	5,878	825	6,703
Operating Income from exploitation	200	275	360	390	481	505	606	716	752	790	3,084	675	3,759
Intangible Development Costs	250	220	240	195	206	217	227	239	251	263	1,537	225	1,762

Calculate residual attributable to CFC's interest in buy-in an	nd other pre-existing (i.e., marketi	ng) intangibles
<u>Item</u>	<u>Amount</u>	<u>Explanation</u>
PV of CFC's operating income	2,067.69	Total Operating Income * 55% RAB share
less PV of CFC's return to routine costs	-258.06	(Total oper. costs * .07) * 55% RAB share
less PV of CFC's cost sharing payments	<u>-969.00</u>	Total Intang. Dev. Costs * 55% RAB share
equals residual attributable to CFC intangibles	840.63	(Note: Totals from column (C), above)

Calculate Lump Sum Buy-in payment as the value of CFC's in of CFC interest in other pre-exixting (i.e.marketing) intangible	-	<u>le</u>
Item Value of CFC intangible assets less value of marketing intangibles of CFC	<u>Amount</u> 840.63 <u>-336.25</u>	Explanation Residual calculated above 40% of value of CFC's intangible assets.
equals lump sum Buy-in Payment	504.38	

Assumptions:

- (1) RAB share of CFC (buy-in payor) is 55%.
- (2)Risk-adjusted discount rate is 9%.
- (3) CPM return to routine function is net cost plus 7%
- (4) Projection accepted as reliable (but source not specified).

- (5) Revenues and routine costs are distributed between U.S. parent and CFC pro rata to RAB share.
- (6) Terminal value taken as given (but source not specified).
- (7) Study indicates relative value of buy-intangible to CFC and private marketing intangible of CFC is 60%/40%.