

TOUR OPERATORS MARGIN SCHEME
THE PROFIT & LOSS, NUMBERS AND ANNUAL CALCULATION

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This spreadsheet is the Appendix to my TOMS notes. It uses the numbered steps in the full annual calculation in Notice 709/5/2009 as well as the algebra used when TOMS was introduced in 1988. The answer is the same. Page 1 goes from the P&L account to the TOMS numbers and shows the annual calculation under the old rules. Page 2 shows the full annual calculation under the new rules and the optimum transport company mark up. Page 3 shows how to estimate the returns next year. The market value & simplified calculations are not shown. The layout on page 1 is a contrived example. Provided the correct principles are followed and the margin reconciles to the accounts, you can ignore page 1. In practice most operators extract the appropriate numbers from the accounts and just use page 2.

1 PROFIT & LOSS A/C

Sales	18,500,000
net of commission	1,101,000
net of TOMS	300,000
incl. cancellations	198,000
incl. insurance	427,000

SHADED BOXES ARE DATA
 all other boxes are formulae

2 SALES

Sales per accounts =	18,500,000
Add back agents' commission deducted from sales in the accounts =	1,101,000
Add back TOMS VAT deducted in the accounts =	300,000
Less cancellation income included in accounts =	-198,000
Less insurance @ selling price included in accounts =	-427,000
Total sales for TOMS purposes =	19,276,000

3 COST OF SALES

Step from 709/5/2009	step 2	step 2	step 3	step 3	step 4	step 5	step 6	step 7	step 8	step 9
Algebra from 1988	B	B1	C	C1	D	E	E	F	B	C
Description	Std-rated	Std-rated	Zero-rated	Zero-rated	Inhouse UK	Inhouse	Inhouse	Inhouse	Agency	Agency
/example	EU hotels	via Newco	NEU hotel	via Newco	std-rated	zero-rated	exempt	non UK	std-rated	not SR
Cost of sales	EU transport	NEU transport	own hotel	own coach	own EFL	own chalet	car hire UK	ferry		
Transport via Newco	3,479,000	2,056,000	1,423,000							
Hotels etc	7,464,000	4,307,000	3,157,000							
Agency costs	120,000								40,000	80,000
Inhouse UK SR	390,000				390,000					
Inhouse non UK	930,000							930,000		
Inhouse transport ZR	1,083,000					1,083,000				
Inhouse exempt	100,000						100,000			
Reps' salaries	265,000	disallowed			Add VAT =		TVA regd so add 19.6% =		Adjust for any	
Personal insurance	198,000	disallowed		Add UK VAT to inhouse	78,000		Add notional TVA	182,280	change in rate of TVA	
Total =	14,029,000	4,307,000	2,056,000	3,157,000	1,423,000	468,000	1,083,000	100,000	1,112,280	40,000 80,000
Gross profit =	4,471,000									

4 ANNUAL CALCULATION - OLD RULES

	1988 algebra:	2009 step	
Sales above =	A	step 1	19,276,000
SR costs eg EU hotels above =	B	step 2	4,307,000
Cost EU transport via Newco =	B1	step 2/3	2,056,000
ZR costs eg non EU hotels =	C	step 3	3,157,000
Cost non EU transport via Newco =	C1	step 3	1,423,000
Inhouse SR costs eg own UK hotel =	D	step 4	468,000
Inhouse ZR costs eg own coaching =	E	step 5	1,083,000
Inhouse exempt eg own EFL =	E	step 6	100,000
Inhouse ZR non UK eg own chalet =	F	step 7	1,112,280
Agency commission standard-rated	B	step 8	40,000
Agency commission not std-rated	C	step 9	80,000
Total costs = B+B1+C+C1+D+E+F	G	step 10	13,826,280
Margin = A-G	H	step 11	5,449,720
SR TOMS margin = H x B/G	J	step 12	VAT fn= 1,713,399
TOMS VAT for year = J x VAT fn	K	step 20+22	16.6667% 285,566
Inhouse SR selling price = D x A/G	O	skipped	652,465
Inhouse VAT for year = O x VAT fn	P	step 21	16.6667% 108,744
Total VAT for year = K+P	T	step 30	394,311
Paid during year	V	step 31	300,000
Annual adjustment = difference		step 32	94,311

5 RECONCILIATION

Gross profit per P&L =	4,471,000
Add agents' commission =	1,101,000
Add VAT deducted from sales in accounts =	300,000
Less cancellation income not liable =	-198,000
Less insurance selling price =	-427,000
Add insurance cost =	198,000
Add reps' salaries disallowed =	265,000
Less UK VAT on inhouse UK =	-78,000
Less notional foreign VAT inhouse non UK =	-182,280
Total expected =	5,449,720
Margin per annual calculation =	5,449,720
Difference =	0.0000

NOTES

- Special cases are not covered eg details of inhouse supplies, using the EU only method, different FX rules, market values, simplified calculation etc.
- The annual calculation above is on the old rules ie the margin on EU transport is zero-rated. This is because most operators have set up a transport company (Newco) to mitigate the 1996 increase and the Newco calculation uses the old rules. See page 2 for the new rules. The annual calculation above is a short cut and is not to be used in place of the correct calculation on page 2.
- This spreadsheet is available on request but all responsibility for the results is with the user.

**TOUR OPERATORS MARGIN SCHEME
THE ANNUAL CALCULATION & TRANSPORT COMPANY SCHEME**

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ANNUAL CALCULATION SECTION 9			WITHOUT NEWCO				WITH NEWCO	
			Algebra 1988	Numbered steps from 709/5/2009	Old rules	New rules	New rules	Newco P&L
Sales adjusted for TOMS-M2-M3 if MV	A	step 1		19,276,000	19,276,000	19,276,000	5,187,560	
Standard-rated costs eg EU hotels	B	step 2	VAT fraction	4,307,000	4,307,000	4,307,000	0	
EU transport via Newco col 1 at cost	B1	step 3/2	sales	2,056,000	2,056,000	3,065,715	2,056,000	
Zero-rated costs eg non EU hotel	C	step 3	rate	3,157,000	3,157,000	3,157,000	0	
Non EU transport via Newco col 1 at cost	C1	step 3	fraction	1,423,000	1,423,000	2,121,845	1,423,000	
Inhouse standard-rated eg own UK hotel	D	step 4	Period 1	468,000	468,000	468,000	0	
Inhouse zero-rated eg own coach	E	step 5	Period 2	1,083,000	1,083,000	1,083,000	0	
Inhouse exempt eg own EFL	E	step 6	Total =	100,000	100,000	100,000	0	
Inhouse non UK eg non UK ski chalet	F	step 7	Use this method to derive hybrid VAT fraction if	1,112,280	1,112,280	1,112,280	0	
Agency commission standard-rated	B	step 8	your accounts straddle two different VAT rates.	40,000	40,000	40,000	0	
Agency commission not std-rated	C	step 9	Using 20% here:	80,000	80,000	80,000	0	
Total cost =	G=total	step 10=total steps 2 to 9	In practice you may want to use this page of the spreadsheet by itself. If so, insert your data at cells 110-120 & 144 and ignore other pages.	13,826,280	13,826,280	15,534,840	3,479,000	
Margin =	H=A-G	step 11=step 1 - step 10	Market value calculation S 8	5,449,720	5,449,720	3,741,160	1,708,560	
Subtotal standard-rated costs=	B	step 2 =	M1=total sales	4,307,000	6,363,000	7,372,715		
Subtotal zero-rated costs =	C	step 3 =	M2=MV SR inhouse sales (D)	6,636,000	4,580,000	5,278,845		
Standard-rated margin =	J=HxB/G	step 12=step 11 x step 2/10	M3=MV ZR/OS inhouse sales (E/F)	1,697,633	2,508,019	1,775,526	The Newco P&L should also show any transport sold direct to other operators and transport to non EU destns if the EU only method is used.	
Zero-rated margin =	M	step 13=step 11 x step 3/10	M4=M2+M3	2,615,623	1,805,237	1,271,272		
Inhouse standard-rated margin =	N	step 14=step 11 x step 4/10	M5=M1-M4 ie sales not at MV	184,465	184,465	112,706		
Inhouse zero-rated margin =	R	step 15=step 11 x step 5/10	M5 replaces step 1	426,872	426,872	260,812		
Inhouse exempt margin =	skipped	step 16=step 11 x step 6/10	M2 is added at step 21/25	39,416	39,416	24,082		
Inhouse non UK margin =	skipped	step 17=step 11 x step 7/10	M3 is added at step 26	438,413	438,413	267,864		
Agency commission std-rated =	B	step 18=step 11 x step 8/10	Formula ignores inhouse exempt eg EFL	15,766	15,766	9,633		
Agency commission not standard-rated =	C	step 19=step 11 x step 9/10	Need to restrict costs picked up at steps 4-7 ie D, E & F for MV proportion.	31,533	31,533	19,266		
VAT due on standard-rated margin =	K=VAT fnxJ	step 20=VAT fn x step 12		282,938.77	418,003.11	295,920.95		
VAT due on inhouse standard-rated =	P=VAT fnxDxA/G	step 21=VAT fn x (step4+step14+M2 if MV)		108,744.22	108,744.22	96,784.26		
VAT due on standard-rated commission =	skipped	step 22=VAT fn x step 18		2,627.71	2,627.71	1,605.49		
Standard-rated margin excl VAT =	L	step 23=step 12-step 20		1,414,694	2,090,016	1,479,605		
Zero-rated margin above =	M	step 24=step 13 (added 2009 to make step 29 formula easier)		2,615,623	1,805,237	1,271,272		
Standard-rated inhouse excl VAT =	Q	step 25=step 4+step 14-step 21+M2 if MV		543,721	543,721	483,921		
Zero-rated inhouse excl VAT =	S	step 26=step 5+step 15 +M3 if MV		1,509,872	1,509,872	1,343,812		
Exempt inhouse excl VAT =	skipped	step 27=step 6+step 16		139,416	139,416	124,082		
Non UK inhouse excl VAT =	U	step 28=step 7+step 17		1,550,693	1,550,693	1,380,144	Saving=diff	
Value of supplies for year =	skipped	step 29=total steps 23-28 (HMRC formula omits steps 18+19)		7,774,018	7,638,954	6,082,836		
VAT due total =	T=K+P	step 30=step 20+step 21+step 22		394,310.70	529,375.04	394,310.70	135,064	
VAT paid in year =	V	step 31		300,000.00	300,000.00	300,000.00		
Annual adjustment = difference	W	step 32=step 30-step 31		94,310.70	229,375.04	94,310.70		
Provl. % 1 for tax next yr = step 12/step 1+step 18/step 1+step 4/step 10 or J/A+D/G. Tax is VAT fn x this % of sales in period. +MV					16.48%	12.27%		
Provl. % 2 for outputs next year (box 6)=(steps 4+5+6+7+11-step 30)/step 1 if same VAT fn. + MV. Using VAT fn:				16.6667%	39.86%	31.70%		
Your annual calculation is column 3 if you use Newco or column 2 if not. You cannot use column 1 after 1995.								

TRANSPORT COMPANY MARK UP

The mark up making the liability under the new rules equal what it would have been under the old rules is found from a quadratic:			
Mark up $Y = (-b + \sqrt{b^2 - 4ax}) / (2a)$ where:	49.1107%	Cost EU transport = B1	2,056,000
a = B1 x (B1+C1)	7.153E+12	Mark up = Y x B1	1,009,715
b = (B1+C1) x (B+D) x A/G - B1 x (A-G-B1-C1)	1.93E+13	Marked up EU =	3,065,715
c = B1 x (G-A)	-1.12E+13	Cost non EU transport = C1	1,423,000
Short cut to Newco mark up	Total margin =	Mark up = Y x C1	698,845
This only works if there are no inhouse or zero-rated supplies.	Standard-rated margin =	Marked up non EU =	2,121,845
	Difference = mk up	Total EU + non EU =	5,187,560

FORMULA FOR MARK UP

There is a simpler formula for the mark up, as set out in Information Sheet 1/97. However, it does not always give the correct answer (eg if D is non zero it produces a liability below that which would have obtained under the old rules). In addition, it assumes that Newco only marks up EU transport whereas my more complicated formula, which is also reproduced in Information Sheet 1/97, assumes Newco marks up EU and non EU transport by the same percentage. The total mark up required is lower on my formula. You can use either formula, or trial and error, but make sure that the TOMS liability is the same under the old rules without Newco mark up and under new rules with Newco mark up. The 1988 algebra is preferred to the numbered steps since it is used in Information Sheet 1/97.

**TOUR OPERATORS MARGIN SCHEME
RETURNS NEXT YEAR**

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THE GENERAL IDEA

The general idea is what goes in each box in the VAT return for each company is as below.		
	Oldco, the tour operator	Newco, the transport company
Box 1 Output tax	Quarter after year end: annual adjustment All quarters: provisional % 1 of sales x VAT fraction Tax on management charge from Newco Any tax on other non TOMS income	There is no VAT on sales to Oldco (zero-rated) Any tax on other income
Box 4 Input tax	Do claim input tax on any inhouse UK costs Do not claim on TOMS costs eg bought in UK hotels Any tax on other non TOMS purchases	Tax on management charge from Oldco There should be no tax on transport purchases Any tax on other purchases
Box 6 Sales	All quarters: provisional % 2 of sales Any other non TOMS income	Sales of transport to Oldco, marked up Any other income
Box 7 Purchases	Do not include TOMS purchases Any other non TOMS purchases including inhouse	Purchases of transport Any other purchases
Notes	Boxes 8 and 9 only apply if you buy or sell goods from/to other members of the EU. Box 3 is a subtotal. The VAT fraction may vary from month to month but this spreadsheet uses 1/6 (20%) throughout (picked up from page 2).	

THE NUMBERS

Alternatively, the numbers are calculated as below, showing only the TOMS elements.				
	Oldco, the tour operator		Newco, the transport company	
	Box 1	Box 6	Box 7	Box 6
	Output VAT	Outputs (margin)	Inputs (purchases)	Outputs (sales)

First quarter of year

Annual adjustment										
Annual liability page 2		394,310.70								
Provl payments page 2		<u>300,000.00</u>								
Annual adjt = difference		94,310.70		NA					NA	NA
Provisional percentages										
Sales	Prov % 1 tax	SR margin	Tax @ VAT fn	Prov % 2 outputs	Outputs	Transport cost	Newco mk up	Mark up*	Outputs	
3,000,000	12.27%	368,209	<u>61,368.13</u>	31.70%	950,944	700,000	49.11%	<u>343,775</u>	<u>1,043,775</u>	
Total first quarter			155,678.83		950,944	700,000			1,043,775	

Second quarter

Sales	Prov % 1 tax	SR margin	Tax @ VAT fn	Prov % 2 outputs	Outputs	Transport cost	Newco mk up	Mark up*	Outputs
5,000,000	12.27%	613,681	102,280.22	31.70%	1,584,906	1,000,000	49.11%	491,107	1,491,107

Third quarter

Sales	Prov % 1 tax	SR margin	Tax @ VAT fn	Prov % 2 outputs	Outputs	Transport cost	Newco mk up	Mark up*	Outputs
6,000,000	12.27%	736,418	122,736.26	31.70%	1,901,887	1,500,000	49.11%	736,660	2,236,660

Fourth quarter

Sales	Prov % 1 tax	SR margin	Tax @ VAT fn	Prov % 2 outputs	Outputs	Transport cost	Newco mk up	Mark up*	Outputs
5,276,000	12.27%	647,557	107,926.09	31.70%	1,672,393	279,000	49.11%	137,019	416,019

PROOF

The proof is that this reconciles to page 2, if you force the sales to be equal to the previous year's. See below.

Total provisional 4 quarters above

Sales	Tax @ VAT fn	Outputs	Transport cost	Outputs
<u>19,276,000</u> Total above	<u>394,310.70</u>	Total above <u>6,110,129</u>	<u>3,479,000</u> Total above	Total above <u>5,187,560</u>
Previous year's calculation page 2				
Sales A	VAT T	Margin H	2,056,000 B1 EU transport	
<u>19,276,000</u>	<u>394,310.70</u>	Less VAT T -394,311	<u>1,423,000</u> C1 non EU	Newco sales p2 <u>5,187,560</u>
		The value of a TOMS supply is the margin but add inhouse D+E+F <u>2,763,280</u>	<u>3,479,000</u> Total	
		since the value of an inhouse supply is its selling price ie cost + margin. <u>6,110,129</u>		
		0.0000 Difference = 0.0000		Difference = 0.0000

Compare HMRC formula for step 29

Step 29 of 709/5/2009 says total for box 6 for year (previous page) =	6,082,836	Step 29 is not used so this difference is not important.
Step 29 omits margin on agency supplies: correcting	Add step 18 = 9,633	Step 29 says "Include this total in box 6 of your VAT return"
	Add step 19 = 19,266	but this is the annual total, calculated after the year end and
And the VAT on the agency supplies is taken off:	Less step 22 = -1,605	it is too late to include it in a return. TOMS provides for you
Corrected total =	<u>6,110,129</u>	to adjust the tax paid but not the margin declared. But if
	Difference above = 0.0000	you want to reconcile you need to use the right formula.