

MRR Validation - Appendix B

CT Return Version 2.0

Corporation Tax Online

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1. Introduction

1.1 Purpose

The purpose of this document is to extend the business rules definition provided by the CT Return Business Rules document [Ref 1] to include validation of Marginal Rate Relief (MRR).

1.2 Scope

The MRR validation defined in this document supersedes the Business Rules [Ref 1] section entitled "Box 64: Computation of marginal starting rate relief (MSRR) or marginal small companies relief (MSCR)."

2. MRR Validation Rules

Marginal Rate Relief is a calculation used to ease the transition between different Corporation Tax Rates. A calculation is performed at each threshold to determine if a company is eligible for transitional relief.

To perform the calculations, the system has to pro-rata profits into their corresponding Financial Year, and checks them against the annual threshold and percentages appropriate to that Financial Year. The calculation also has to take into account the number of associated companies (if any) over which the Corporation Tax charges may be distributed.

There were originally two changes of rate from the standard full Corporation Tax rate dependent on the size of company profits: a Starting rate and a Small Companies rate. The Starting rate was abolished in 2006. Budget 2007 introduced an additional Small Companies rate for companies with ring fenced profits. In 2007, the fractions used to calculate Marginal Small Companies Rate Relief (MSCR) for ring fenced and non-ring fenced profits are different.

The following sections describe the calculation for companies with no ring fenced profits (Box 169 is not present or zero) and those with (Box 169 is greater than zero).

2.1 Calculation Glossary

Note: This is an extract from the COTAX system. Amendments have been made to make the extract relevant to the MRR calculator i.e. references to various boxes on forms have been removed.

DAYSINAP := number of days in Accounting Period (AP)
LIB52S := number of days between the start of an AP to the end of the next financial year (FY)
FY1DAYS := number of days in the FY in which the AP starts
FY2DAYS := next FY (used when AP straddles 2 FYs)
URMA1 := Upper Relevant Amount FY1 (1,500,000 since 1994)
LRMA1 := Lower Relevant Amount FY1 (300,000 since 1994)
FRA1 := First Relevant Amount FY1 (10,000 from 2000 until 2005)
SRA1 := Second Relevant Amount FY1 (50,000 from 2000 until 2005)
SSCFRATE1 := fraction used for calculating the lower band of MSCR (FY1)
SMCOFRAC1 := fraction used for calculating the upper band of MSCR (FY1) aka “the standard fraction”
URMA2 := Upper Relevant Amount FY2 (1,500,000 since 1994)
LRMA2 := Lower Relevant Amount FY2 (300,000 since 1994)
FRA2 := First Relevant Amount FY2 (10,000 from 2000 until 2005)
SRA2 := Second Relevant Amount FY2 (50,000 from 2000 until 2005)
SSCFRATE2 := fraction used for calculating the lower band of MSCR (FY2)
SMCOFRAC2 := fraction used for calculating the upper band of MSCR (FY2) aka “the standard fraction”
CHARGEPROF := Basic Profits Chargeable
FRANKINV := Franked Inv. Income
ASSCOFY := Associated companies in this period
ASSCOFY1 := Associated Companies (FY1)
ASSCOFY2 := Associated Companies (FY2)
mscrdu := Marginal Rate Relief
apdaysinfy1 := Number of AP days in FY1
apdaysinfy2 := Number of AP days in FY2
apfy1ratio := Ratio of AP days in FY1 compared to total AP
apfy2ratio := Ratio of AP days in FY2 compared to total AP
fy1ratio := Ratio of AP days in FY1 compared to full FY1
fy2ratio := Ratio of AP days in FY2 compared to full FY2
p1 := Total of profit and franked income pro-rata for FY1
p2 := Total of profit and franked income pro-rata for FY2
noasscos1 := Number of associated companies in FY1 (used for Small Company calculations)

noassocos2 := Number of associated companies in FY2 (used for Small Company calculations)
fsraassocos1 := Number of associated companies in FY1 (used for Starting Rate calculations)
fsraassocos2 := Number of associated companies in FY2 (used for Starting Rate calculations)
msfy1ratio := Ratio of AP days in FY1 compared to full FY1 (used for Small Company calculations)
msfy2ratio := Ratio of AP days in FY2 compared to full FY2 (used for Small Company calculations)
srfy1ratio := Ratio of AP days in FY1 compared to full FY1 (used for Starting Rate calculations)
srfy2ratio := Ratio of AP days in FY2 compared to full FY2 (used for Starting Rate calculations)
fradue1 := Adjusted Starting Rate lower limit (FY1)
fradue2 := Adjusted Starting Rate lower limit (FY2)
sm1 := Adjusted Starting Rate upper limit (FY1)
sm2 := Adjusted Starting Rate upper limit (FY2)
lrmadue1 := Adjusted Small Company lower limit (FY1)
lrmadue2 := Adjusted Small Company lower limit (FY2)
m1 := Adjusted Small Company upper limit (FY1)
m2 := Adjusted Small Company upper limit (FY2)
i1 := Total of basic profit pro-rata for FY1
i2 := Total of basic profit pro-rata for FY2
fsraband1 := indication of possible Marginal Relief for FY1
fsraband2 := indication of possible Marginal Relief for FY2
mscrduap1 := result of the Marginal Rate Relief calculation for FY1
mscrduap2 := result of the Marginal Rate Relief calculation for FY2
part1 := result of the Marginal Rate Relief calculation for FY1 after comparison with thresholds
part2 := result of the Marginal Rate Relief calculation for FY2 after comparison with thresholds

Additional variables required for the ring fenced profit calculation:

RFProfit := Ring Fenced Profits Included (Box 169)
PR1 := Profits for the AP that consist of Ring Fenced Profits pro-rata for FY1
PR2 := Profits for the AP that consist of Ring Fenced Profits pro-rata for FY2
PNR1 := Profits for the AP that do not consist of Ring Fenced Profits pro-rata for FY1
PNR2 := Profits for the AP that do not consist of Ring Fenced Profits pro-rata for FY2
IR1 := Basic profits for the AP that consist of Ring Fenced Profits pro-rata for FY1
IR2 := Basic profits for the AP that consist of Ring Fenced Profits pro-rata for FY2
INR1 := Basic profits for the AP that do not consist of Ring Fenced Profits pro-rata for FY1
INR2 := Basic profits for the AP that do not consist of Ring Fenced Profits pro-rata for FY2
MR1 := Adjusted Small Company upper limit for Profits that consist of Ring Fenced Profits for FY1
MR2 := Adjusted Small Company upper limit for Profits that consist of Ring Fenced Profits for FY2
MNR1 := Adjusted Small Company upper limit for Profits that do not consist of Ring Fenced Profits for FY1
MNR2 := Adjusted Small Company upper limit for Profits that do not consist of Ring Fenced Profits for FY2
FY2MSCRFY1RF := MSCR (FY1) for Profits consisting of Ring Fenced Profits
MSCRFY1NRF := MSCR (FY1) for Profits that do not consist of Ring Fenced Profits
MSCRFY2RF := MSCR (FY2) for Profits consisting of Ring Fenced Profits
MSCRFY2NRF := MSCR (FY2) for Profits that do not consist of Ring Fenced Profits
SMRFFRAC1 := Marginal small companies' fraction for ring fence trades (FY1) aka "the ring fence fraction"
SMRFFRAC2 := Marginal small companies' fraction for ring fence trades (FY2) "the ring fence fraction"

Note that "Profits" include any Franked Investment Income (FII) where as "Basic Profits" do not.

2.2 MRR Calculation – Calculation for Companies with no Ring Fenced Profits

If Box 169 (Ring Fenced Profits Included) is either zero or not present in the submission then the calculation in this section should be applied.

apdaysinfy1 := if **DAYSINAP** IS LESS THAN **LIB52S** then use **DAYSINAP**, otherwise use **LIB52S**.

apdaysinfy2 := if **DAYSINAP** - apdaysinfy1 IS LESS THAN 1 then use 0
otherwise use **DAYSINAP** - apdaysinfy1.

apfy1ratio := apdaysinfy1 / **DAYSINAP**.

apfy2ratio := if apdaysinfy2 IS EQUAL TO 0 then use 0, otherwise use apdaysinfy2 / **DAYSINAP**

fy1ratio := apdaysinfy1 / **FY1DAYS**.

fy2ratio := apdaysinfy2 / **FY2DAYS**.

p1 := (**CHARGEPROF** + **FRANKINV**) * apfy1ratio.

p2 := (**CHARGEPROF** + **FRANKINV**) * apfy2ratio.

noasscos1 :=

if **ASSCOFY** is present

then use 1 + **ASSCOFY**

otherwise if **URMA1** & **URMA2** are the same AND **LRMA1** & **LRMA2** are the same
then use 1 + the greater of **ASSCOFY1** and **ASSCOFY2**

otherwise (ie. **URMA** or **LRMA** changed from one FY to the next, therefore)
use **ASSCOFY1**+1 when **ASSCOFY1** is present OTHERWISE use **ASSCOFY2**+1

noasscos2 :=

if **ASSCOFY** is present

then use 1 + **ASSCOFY**

otherwise if **URMA1** & **URMA2** are the same AND **LRMA1** & **LRMA2** are the same
then use 1 + the greater of **ASSCOFY1** and **ASSCOFY2**

otherwise (ie. **URMA** or **LRMA** changed from one FY to the next, therefore)
use **ASSCOFY2**+1 when **ASSCOFY2** is present OTHERWISE use **ASSCOFY1**+1

fsraasscos1 :=

if **ASSCOFY** is present

then use 1 + **ASSCOFY**

otherwise if **SRA1** & **SRA2** are the same AND **FRA1** & **FRA2** are the same
then use 1 + the greater of **ASSCOFY1** and **ASSCOFY2**

otherwise (ie. **SRA** or **FRA** changed from one FY to the next, therefore)
use **ASSCOFY1**+1 when **ASSCOFY1** is present OTHERWISE use **ASSCOFY2**+1

fsraasscos2 :=

if **ASSCOFY** is present

then use 1 + **ASSCOFY**

otherwise if **SRA1** & **SRA2** are the same AND **FRA1** & **FRA2** are the same
then use 1 + the greater of **ASSCOFY1** and **ASSCOFY2**

otherwise (ie. **SRA** or **FRA** changed from one FY to the next, therefore)
use **ASSCOFY2**+1 when **ASSCOFY2** is present OTHERWISE use **ASSCOFY1**+1

msfy1ratio :=

if **URMA1** is different to **URMA2** then use fy1ratio
otherwise (ie. **URMA** has not changed)
 use apdaysinfy1 / 366 when **DAYSINAP** IS EQUAL TO 366
 otherwise use apdaysinfy1 / 365.

msfy2ratio :=

if **URMA1** is different to **URMA2** then use fy2ratio
otherwise (ie. **URMA** has not changed)
 use apdaysinfy2 / 366 when **DAYSINAP** IS EQUAL TO 366
 otherwise use apdaysinfy2 / 365.

srfy1ratio :=

if **SRA1** is different to **SRA2** then use fy1ratio
otherwise (ie. **SRA** has not changed)
 use apdaysinfy1 / 366 when **DAYSINAP** IS EQUAL TO 366
 otherwise use apdaysinfy1 / 365.

srfy2ratio :=

if **SRA1** is different to **SRA2** then use fy2ratio
otherwise (ie. **SRA** has not changed)
 use apdaysinfy2 / 366 when **DAYSINAP** IS EQUAL TO 366
 otherwise use apdaysinfy2 / 365.

fradue1 :=

if **FRA1** is applicable then use **FRA1** * srfy1ratio / fsraasscos1
OTHERWISE use a null value

fradue2 :=

if **FRA2** is applicable then use **FRA2** * srfy2ratio / fsraasscos2
OTHERWISE use a null value

sm1 :=

if **SRA1** is applicable then use **SRA1** * srfy1ratio / fsraasscos1
OTHERWISE use a null value

sm2 :=

if **SRA2** is applicable then use **SRA2** * srfy2ratio / fsraasscos2
OTHERWISE use a null value

lrmadue1 := **LRMA1** * msfy1ratio / noasscos1.

lrmadue2 := **LRMA2** * msfy2ratio / noasscos2.

m1 := **URMA1** * msfy1ratio / noasscos1.

m2 := **URMA2** * msfy2ratio / noasscos2.

i1 := **CHARGEPROF** * apfy1ratio.

i2 := **CHARGEPROF** * apfy2ratio.

fsraband1 :=

if **FRA1** and **SRA1** are not applicable
then use 1
otherwise if **p1** IS GREATER THAN **fradue1** AND
 EITHER **p1** IS LESS THAN **sm1**
 OR **p1** IS EQUAL TO **sm1**
then use 0
otherwise use 1.

fsraband2 :=
 if **FRA2** and **SRA2** are not applicable
 then use 1
 otherwise if p2 IS GREATER THAN fradue2 AND
 EITHER p2 IS LESS THAN sm2
 OR p2 IS EQUAL TO sm2
 then use 0
 otherwise use 1.

mscrdueap1 :=
 if p1 IS EQUAL TO 0 then use 0
 otherwise
 if fsraband1 IS EQUAL TO 0
 then use $((sm1 - p1) * (i1 / p1)) * (SSCFRATE1)$
 otherwise use $((m1 - p1) * (i1 / p1)) * (SMCOFRAC1)$.

mscrdueap2 :=
 if p2 IS EQUAL TO 0 then use 0
 otherwise
 if fsraband2 IS EQUAL TO 0
 then use $((sm2 - p2) * (i2 / p2)) * (SSCFRATE2)$
 otherwise use $((m2 - p2) * (i2 / p2)) * (SMCOFRAC2)$.

part1 :=
 if ALL of the following conditions are met:-
 • fsraband1 IS EQUAL TO 0
 • p1 IS GREATER THAN fradue1
 • p1 IS LESS THAN (sm1 + 0.01)
 then use mscrdueap1
 otherwise
 if ALL of the following conditions are met:-
 • fsraband1 IS EQUAL TO 1
 • p1 IS GREATER THAN lrmadue1
 • p1 IS LESS THAN (m1 + 0.01)
 then use mscrdueap1
 otherwise use 0.

part2 :=
 if ALL of the following conditions are met:-
 • fsraband2 IS EQUAL TO 0
 • p2 IS GREATER THAN fradue2
 • p2 IS LESS THAN (sm2 + 0.01)
 then use mscrdueap2
 otherwise
 if ALL of the following conditions are met:-
 • p2 IS GREATER THAN lrmadue2
 • p2 IS LESS THAN (m2 + 0.01)
 then use mscrdueap2
 otherwise use 0.

mscrdue := **Marginal Rate Relief**
 use part1 + part2.

2.3 MRR Calculation – Calculation for Companies with Ring Fenced Profits

If Box 169 (Ring Fenced Profits Included) is greater than zero then the calculation in this section should be applied.

The following variables are calculated in the same way as specified in section 2.2:

- **apdaysinfy1**
- **apdaysinfy2**
- **apfy1ratio**
- **apfy2ratio**
- **fy1ratio**
- **fy2ratio**
- **p1**
- **p2**
- **noasscos1**
- **noasscos2**
- **msfy1ratio**
- **msfy2ratio**
- **lrmadue1**
- **lrmadue2**
- **m1**
- **m2**
- **i1**
- **i2**

PR1 = Profits for the AP that consist of Ring Fenced Profits pro-rata for FY1
= $\text{RFProfit} * \text{apfy1ratio}$

PR2 = Profits for the AP that consist of Ring Fenced Profits pro-rata for FY2
= $\text{RFProfit} * \text{apfy2ratio}$

PNR1 = Profits for the AP that do not consist of Ring Fenced Profits pro-rata for FY1
= $\text{p1} - \text{PR1}$

PNR2 = Profits for the AP that do not consist of Ring Fenced Profits pro-rata for FY2
= $\text{p2} - \text{PR2}$

IR1 = Basic profits for the AP that consist of Ring Fenced Profits pro-rata for FY1
= **PR1**

IR2 = Basic profits for the AP that consist of Ring Fenced Profits pro-rata for FY2
= **PR2**

INR1 = Basic profits for the AP that do not consist of Ring Fenced Profits pro-rata for FY1
= $\text{i1} - \text{IR1}$

INR2 = Basic profits for the AP that do not consist of Ring Fenced Profits pro-rata for FY2
= $\text{i2} - \text{IR2}$

MR1 = Adjusted Small Company upper limit for Profits that consist of Ring Fenced Profits for FY1
= $((\text{URMA1} * \text{msfy1ratio}) / \text{noasscos1}) * (\text{PR1} / \text{p1})$

MR2 = Adjusted Small Company upper limit for Profits that consist of Ring Fenced Profits for FY2
= $((\text{URMA2} * \text{msfy2ratio}) / \text{noasscos2}) * (\text{PR2} / \text{p2})$

MNR1 = Adjusted Small Company upper limit for Profits that do not consist of Ring Fenced Profits for FY1

$$= ((URMA1 * msfy1ratio) / noasscos1) * (PNR1 / p1)$$

MNR2 = Adjusted Small Company upper limit for Profits that do not consist of Ring Fenced Profits for FY2

$$= ((URMA2 * msfy2ratio) / noasscos2) * (PNR2 / p2)$$

fsraband1 = if $p1 > 0$
and $p1 > lrmadue1$
and $p1 < (m1 + 0.01)$ then use 1
else use 0

This defines whether or not the company is eligible for MSCR in FY1. The company is eligible if:

- FY1 Profits are greater than 0
- FY1 Profits are greater than the Adjusted Small Company lower limit (FY1)
- FY1 Profits are less than the Adjusted Small Company upper limit (FY1) + 0.01

fsraband2 = if $p2 > 0$
and $p2 > lrmadue2$
and $p2 < (m2 + 0.01)$ then use 1
else use 0

This defines whether or not the company is eligible for MSCR in FY2. The company is eligible if:

- FY2 Profits are greater than 0
- FY2 Profits are greater than the Adjusted Small Company lower limit (FY2)
- FY2 Profits are less than the Adjusted Small Company upper limit (FY2) + 0.01

MSCRFY1RF = MSCR (FY1) for Profits consisting of Ring Fenced Profits
If **fsraband1** = 0 then use 0
otherwise

if **SMRFFRAC1** is applicable
then use $(MR1 - PR1) * (IR1 / PR1) * SMRFFRAC1$
else use $(MR1 - PR1) * (IR1 / PR1) * SMCOFRAC1$

If the ring fence fraction is not defined for the FY then use the standard fraction for that FY to calculate MSCR.

MSCRFY1NRF = MSCR (FY1) for Profits that do not consist of Ring Fenced Profits
If **fsraband1** = 0 then use 0

otherwise use $(MNR1 - PNR1) * (INR1 / PNR1) * SMCOFRAC1$

MSCRFY2RF = MSCR (FY2) for Profits consisting of Ring Fenced Profits
if **fsraband2** = 0 then use 0
otherwise

if **SMRFFRAC2** is applicable
then use $(MR2 - PR2) * (IR2 / PR2) * SMRFFRAC2$
else use $(MR2 - PR2) * (IR2 / PR2) * SMCOFRAC2$

If the ring fence fraction is not defined for the FY then use the standard fraction for that FY to calculate MSCR.

MSCRFY2NRF = MSCR (FY2) for Profits that do not consist of Ring Fenced Profits
If **fsraband** = 0 then use 0

otherwise use $(MNR2 - PNR2) * (INR2 / PNR2) * SMCOFRAC2$

part1 = **MSCRFY1RF** + **MSCRFY1NRF**

part2 = **MSCRFY2RF** + **MSCRFY2NRF**

mscrduel = **Marginal Rate Relief**
= **part1** + **part2**.

2.4 Annual Constants

Marginal Relief Rates Year beginning 1 April	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Main Rate of Corporation Tax on profits other than ring fence	30%	30%	30%	30%	30%	30%	30%	30%	28%	28%	28%
Rate of Corporation Tax on ring fence profits of companies	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Starting Rate CTSTRTRATE	10%	10%	0%	0%	0%	0%	N/A	N/A	N/A	N/A	N/A
Starting Rate Marginal Relief Lower Limit FRA1/FRA2	£10,000	£10,000	£10,000	£10,000	£10,000	£10,000	N/A	N/A	N/A	N/A	N/A
Starting Rate Marginal Relief Upper Limit SRA1/SRA2	£50,000	£50,000	£50,000	£50,000	£50,000	£50,000	N/A	N/A	N/A	N/A	N/A
Starting Rate Marginal Relief Fraction SSCFRATE1/SSCFRATE2	10/400	10/400	19/400	19/400	19/400	19/400	N/A	N/A	N/A	N/A	N/A
Small Company Rate SCTRATE	20%	20%	19%	19%	19%	19%	19%	20%	21%	21%	21%
Small Company Marginal Relief Lower Limit LRMA1/LRMA2	£300,000	£300,000	£300,000	£300,000	£300,000	£300,000	£300,000	£300,000	£300,000	£300,000	£300,000
Small Company Marginal Relief Upper Limit URMA1/URMA2	£1,500,000	£1,500,000	£1,500,000	£1,500,000	£1,500,000	£1,500,000	£1,500,000	£1,500,000	£1,500,000	£1,500,000	£1,500,000
Small Company Marginal Relief Fraction SMCOFRAC1/SMCOFRAC2	10/400	10/400	11/400	11/400	11/400	11/400	11/400	1/40	7/400	7/400	7/400
Small Companies' rate for ring fence trades (offshore North Sea Oil and Gas companies only) SPECIAL_RF_RATE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19%	19%	19%	19%
Marginal small companies' fraction for ring fence trades SMRFFRAC1/ SMRFFRAC2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11/400	11/400	11/400	11/400