

\$TITLE: M10-4a.gms

*CALIBRATES MODEL TO SHEET IO-1 IN M10-IOTABLE.XLS

*TRADE SURPLUS OF 5

*NETS OUT CROSS-HAULING: domestic and foreign goods perfect substitutes

*acutal MAN exports 20, imports 10; AGR exports 5, imports 10

\$ONTEXT

		Ag	Man	Ser	Cons	Exports	Imports		
		1	2	3	4	5	6	UM(1:5) - (6)	
Ag	1	5	6	9	30		5	45	
Man	2	10	15	20	60	10		115	
Ser	3	12	13	5	110			140	
Wages	4	9	30	66				105	
Rents	5	9	51	40				100	
		<hr/>							
		45	115	140	200	10	-5		

Micro consistent: total value added (205 = 105+100) =
consumption + trade surplus (205 = 200 + 10 - 5)

	<i>Net Ag</i>	<i>Net Man</i>	<i>Net Ser</i>	<i>Export</i>	<i>Imports</i>	<i>Welf</i>	<i>Cons</i>	<i>Row</i>
<i>Ag</i>	40	-6	-9		5	-30		0
<i>Man</i>	-10	100	-20	-10		-60		0
<i>Ser</i>	-12	-13	135			-110		0
<i>Wages</i>	-9	-30	-66				105	0
<i>Rents</i>	-9	-51	-40				100	0
<i>For ex</i>				10	-5		-5	0
<i>Welfare</i>						200	-200	0
<i>Col sums</i>	0	0	0	0	0	0	0	

\$OFFTEXT

PARAMETERS

PWA world price of agriculture
 PWM world price of manufactures;

PWA = 1;

PWM = 1;

\$ONTEXT

\$MODEL:M10_4

\$SECTORS:

AGR
MAN
SER
IMAGR EXAGR
EXMAN IMMAN
WELFARE

\$COMMODITIES:

PAGR
PMAN
PSER
PL
PK
PFX
PWEL

\$CONSUMERS:

CONS

\$PROD:AGR s:1

O:PAGR Q:45
I:PAGR Q:5
I:PMAN Q:10
I:PSER Q:12
I:PL Q:9
I:PK Q:9

\$PROD:MAN s:1

O:PMAN Q:115

I:PAGR Q:6

I:PMAN Q:15

I:PSER Q:13

I:PL Q:30

I:PK Q:51

\$PROD:SER s:1

O:PSER Q:140

I:PAGR Q:9

I:PMAN Q:20

I:PSER Q:5

I:PL Q:66

I:PK Q:40

\$PROD:IMAGR

O:PAGR Q:5

I:PFX Q:(5*PWA)

\$PROD:EXMAN

O:PFX Q:(10*PWM)

I:PMAN Q:10

\$PROD:EXAGR

O: PFX Q: (5*PWA)
I: PAGR Q: (5*1.001)

\$PROD: IMMAN

O: PMAN Q: (10*0.999)
I: PFX Q: (10*PWM)

\$PROD: WELFARE s: 1

O: PWEL Q: 200
I: PAGR Q: 30
I: PMAN Q: 60
I: PSER Q: 110

\$DEMAND: CONS

D: PWEL
E: PL Q: 105
E: PK Q: 100
E: PFX Q: (-5)

\$OFFTEXT

\$SYSINCLUDE MPSGESET M10_4

PWEL.FX = 1;
EXAGR.L = 0;
IMMAN.L = 0;

```
M10_4.ITERLIM = 0;  
$INCLUDE M10_4.GEN  
SOLVE M10_4 USING MCP;
```

```
M10_4.ITERLIM = 2000;  
$INCLUDE M10_4.GEN  
SOLVE M10_4 USING MCP;
```

** counterfactual: double the world price of the export good M*

```
PWM = 2;
```

```
$INCLUDE M10_4.GEN  
SOLVE M10_4 USING MCP;
```

** counterfactual: double the world price of the import good A*

```
PWM = 1;
```

```
PWA = 2;
```

```
$INCLUDE M10_4.GEN  
SOLVE M10_4 USING MCP;
```