

\$TITLE: M10-4b.gms

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

\*TRADE SURPLUS OF 5

\*cross-hauling modeled with Armington assumption

\$ONTEXT

		Ag	Man	Ser	Cons	Exports	Imports		
		1	2	3	4	5	6	SUM(1:5) - (6)	
Ag	1	5	6	9	30	5	10	45	
Man	2	10	15	20	60	20	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	25	-20		

Micro consistent: total value added (205 = 105+100) =  
consumption + trade surplus (205 = 200 + 20 - 10)

	<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	10	-30		0
<i>Man</i>	-10	100	-20	-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>				25	-20		-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\_D*

*PAGR\_F*

*PMAN\_D*

*PMAN\_F*

*PSER*

*PL*

*PK*

*PFX*

*PWEL*

\$CONSUMERS :

*CONS*

\$PROD:AGR    s:1

*O:PAGR\_D    Q:45*

*I:PAGR\_D    Q:5*

*I:PMAN\_D    Q:10*

*I:PSER*      *Q:12*  
*I:PL*        *Q:9*  
*I:PK*        *Q:9*

**\$PROD:MAN**      **s:1**  
*O:PMAN\_D*      *Q:115*  
*I:PAGR\_D*      *Q:6*  
*I:PMAN\_D*      *Q:15*  
*I:PSER*        *Q:13*  
*I:PL*         *Q:30*  
*I:PK*         *Q:51*

**\$PROD:SER**      **s:1**  
*O:PSER*        *Q:140*  
*I:PAGR\_D*      *Q:9*  
*I:PMAN\_D*      *Q:20*  
*I:PSER*        *Q:5*  
*I:PL*         *Q:66*  
*I:PK*         *Q:40*

**\$PROD:IMAGR**  
*O:PAGR\_F*      *Q: 10*  
*I:PFX*         *Q:(10\*PWA)*

**\$PROD:EXMAN**  
*O:PFX*         *Q:(20\*PWA)*

*I:PMAN\_D Q: 20*

\$PROD:EXAGR

*O:PFX Q:(5\*PWA)*

*I:PAGR\_D Q: 5*

\$PROD:IMMAN

*O:PMAN\_F Q: 10*

*I:PFX Q:(10\*PWM)*

\$PROD:WELFARE s:1 a:5 b:5

*O:PWEL Q:200*

*I:PAGR\_D Q:20 a:*

*I:PAGR\_F Q:10 a:*

*I:PMAN\_D Q:50 b:*

*I:PMAN\_F Q:10 b:*

*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 = 1;
```

```
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;