

\$TITLE Model M10-2: TWOxTWOxONE economy -- MPS/GE version of model M3-4b

\$ONTEXT

This is the exact same model as M3-4b.GMS but uses the MPS/GE format.

<i>Markets</i>	<i>Production Sectors</i>			<i>Consumers</i>
	<i>X</i>	<i>Y</i>	<i>W</i>	<i>CONS</i>
<i>PX</i>	100		-100	
<i>PY</i>		100	-100	
<i>PW</i>			200	-200
<i>PL</i>	-25	-75		100
<i>PK</i>	-75	-25		100

\$OFFTEXT

PARAMETERS

TX ad-valorem tax rate for X sector inputs
 TY ad-valorem tax rate for Y sector inputs
 LENDOW labor endowment multiplier
 KENDOW capital endowment multiplier;

```
TX = 0; TY = 0;  
LENDOW = 1;  
KENDOW = 1;
```

```
$ONTEXT
```

```
$MODEL:M10_2
```

```
$SECTORS:
```

```
    X      ! Activity level for sector X  
    Y      ! Activity level for sector Y  
    W      ! Activity level for sector W (Hicksian welfare index)
```

```
$COMMODITIES:
```

```
    PX      ! Price index for commodity X  
    PY      ! Price index for commodity Y  
    PL      ! Price index for primary factor L  
    PK      ! Price index for primary factor K  
    PW      ! Price index for welfare (expenditure function)
```

```
$CONSUMERS:
```

```
    CONS    ! Income level for consumer CONS
```

\$PROD:X s:1

O:PX Q:100

I:PL Q:25 A:CONS T:TX

I:PK Q:75 A:CONS T:TX

\$PROD:Y s:1

O:PY Q:100

I:PL Q:75 A:CONS T:TY

I:PK Q:25 A:CONS T:TY

\$PROD:W s:1

O:PW Q:200

I:PX Q:100

I:PY Q:100

\$DEMAND:CONS

D:PW Q:200

E:PL Q:(100*LENDOW)

E:PK Q:(100*KENDOW)

\$OFFTEXT

\$SYSINCLUDE mpsgeset M10_2

PW.FX = 1;

```
$INCLUDE M10_2.GEN
```

```
SOLVE M10_2 USING MCP;
```

```
*           Solve the counterfactuals
```

```
TX = 0.5;
```

```
$INCLUDE M10_2.GEN
```

```
SOLVE M10_2 USING MCP;
```

```
TX = 0.5;
```

```
TY = 0.5;
```

```
$INCLUDE M10_2.GEN
```

```
SOLVE M10_2 USING MCP;
```

```
TX = 0;
```

```
TY = 0;
```

```
LENDOW = 2;
```

```
$INCLUDE M10_2.GEN
```

```
SOLVE M10_2 USING MCP;
```

```
LENDOW = 2;
```

```
KENDOW = 2;
```

```
$INCLUDE M10_2.GEN  
SOLVE M10_2 USING MCP;
```