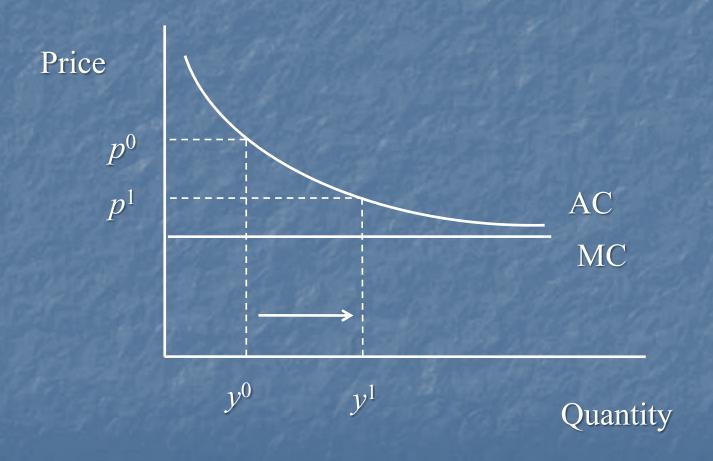
# Firm Effects of Increased Competition



# Industry Effects of Increased Competition

#### Output increases:

US carriers: 0.5% to 3.1%

■ EU carriers: 0.8% to 4.4%

#### Number of firms decreases:

US carriers: 10.2% to 16.8%

■ EU carriers: 9.9% to 15.8%

## Other Impacts

- Output reduction for other air transport
  - Range from 0.04% to 0.2%
- Increase output of tourism-related sectors in US and EU
  - US: \$725 million to \$4,159 million increase in value of output
  - EU: \$164 million to \$856 million increase in value of output
- Decrease in CO<sub>2</sub> emissions
  - US carriers: 1.03 million to 5.54 million MT
  - EU carriers: 0.37 million to 2.62 million MT
  - Global: 0.97 million to 4.97 million MT

## Welfare Impacts

■ US gains 13% more than EU

■ US: \$675 million to \$3,741 million

■ EU: \$601 million to \$3,300 million

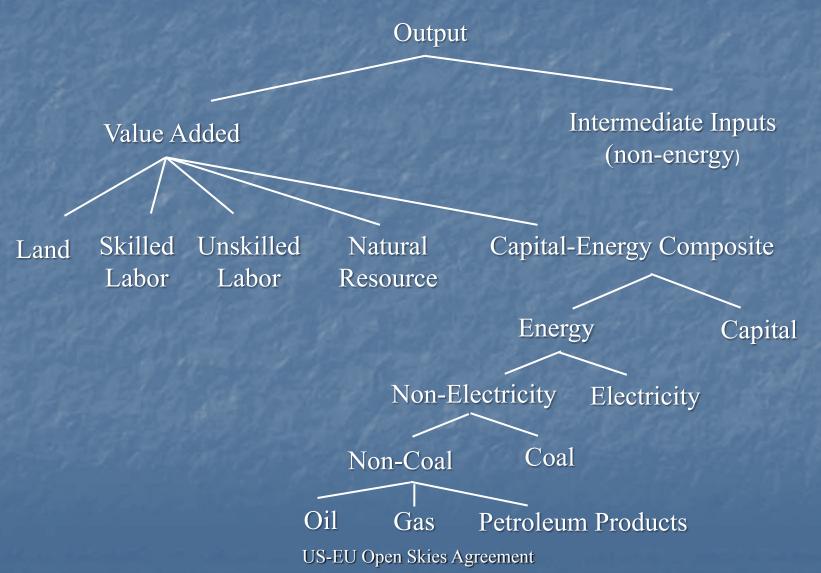
<b>Equivalent Variation (\$ millions)</b>	m =	m = 0.5		
	US	EU		
Increased competition/scale economies	\$1,768.6	\$2,445.0		
Terms-of-trade	561.0	-94.9		
Savings-investment	209.0	-39.2		
Allocative efficiency	36.9	-35.5		
Total	\$2,575.5	\$2,275.4		

### Summary

- Range of fare decreases lower than previous studies
  - Smaller increases in output
- Welfare estimates: \$1.3 billion to \$7.0 billion annually
  - Lower range comparable to previous studies
- Policy change need not lead to an increase in CO<sub>2</sub> emissions
- Limitations
  - Tourism data
  - Incomplete data to disaggregate air transportation sector
  - Symmetric firms

# Extra Slides for Questions

#### GTAP-E Production Structure



# Comparison of Tourism Data and GTAP Trade Data

Country	Country Tourism Data			GTAP Data		
	Year	Imports	Exports	Imports	Exports	
	(\$ millions)					
United States	2001	60,200	71,893	52,272	41,415	
United Kingdom	2004	54,772	24,240	33,389	19,148	
Portugal	2001	2,606	6,238	1,289	1,731	
Netherlands	2003	11,049	9,169	3,953	7,931	

# Tourism Expenditure Share by Region

Region	Imports	Domestic	Total
Australia/New Zealand	0.022	0.043	0.065
United States	0.008	0.040	0.048
Canada	0.025	0.036	0.061
European Union	0.020	0.052	0.072
Rest of EFTA	0.016	0.044	0.060
Rest of Europe and Former Soviet Union	0.029	0.017	0.046
Central and South America	0.013	0.025	0.038
Middle East and Africa	0.022	0.020	0.042
Rest of Asia	0.018	0.030	0.048
All Regions	0.015	0.039	0.054

# Change in CO<sub>2</sub> Emissions

Region	m=0.2	m=0.4	m=0.5	m=0.6
	Million MT			
Australia/New Zealand	-0.03	-0.02	-0.01	-0.01
United States	-4.85	-3.36	-2.29	-0.90
Canada	0.04	0.03	0.02	0.01
European Union	-1.23	-0.83	-0.56	-0.21
Rest of EFTA	0.02	0.01	0.01	0.003
Rest of Europe and Former Soviet Union	0.21	0.15	0.10	0.04
Central and South America	0.11	0.07	0.05	0.02
Middle East and Africa	0.14	0.1	0.07	0.03
Rest of Asia	0.62	0.43	0.29	0.11
Global	-4.97	-3.42	-2.33	-0.91

# Change in Equivalent Variation

Region	m=0.2	m=0.4	m=0.5	m=0.6
	\$ Millions			
Australia/New Zealand	-5.6	-14.4	-21.2	-30.8
United States	674.8	1,754.4	2,575.6	3,740.6
Canada	-22.8	-59.4	-87.3	-126.8
European Union	601.1	1,552.5	2,275.4	3,300.2
Rest of EFTA	-7.7	-20.0	-29.3	-42.5
Rest of Europe and Former Soviet Union	-18.0	-46.6	-68.4	-99.2
Central and South America	-30.0	-77.7	-113.9	-165.3
Middle East and Africa	-48.5	-125.2	-183.6	-266.6
Rest of Asia	-40.2	-105.0	-154.1	-223.7