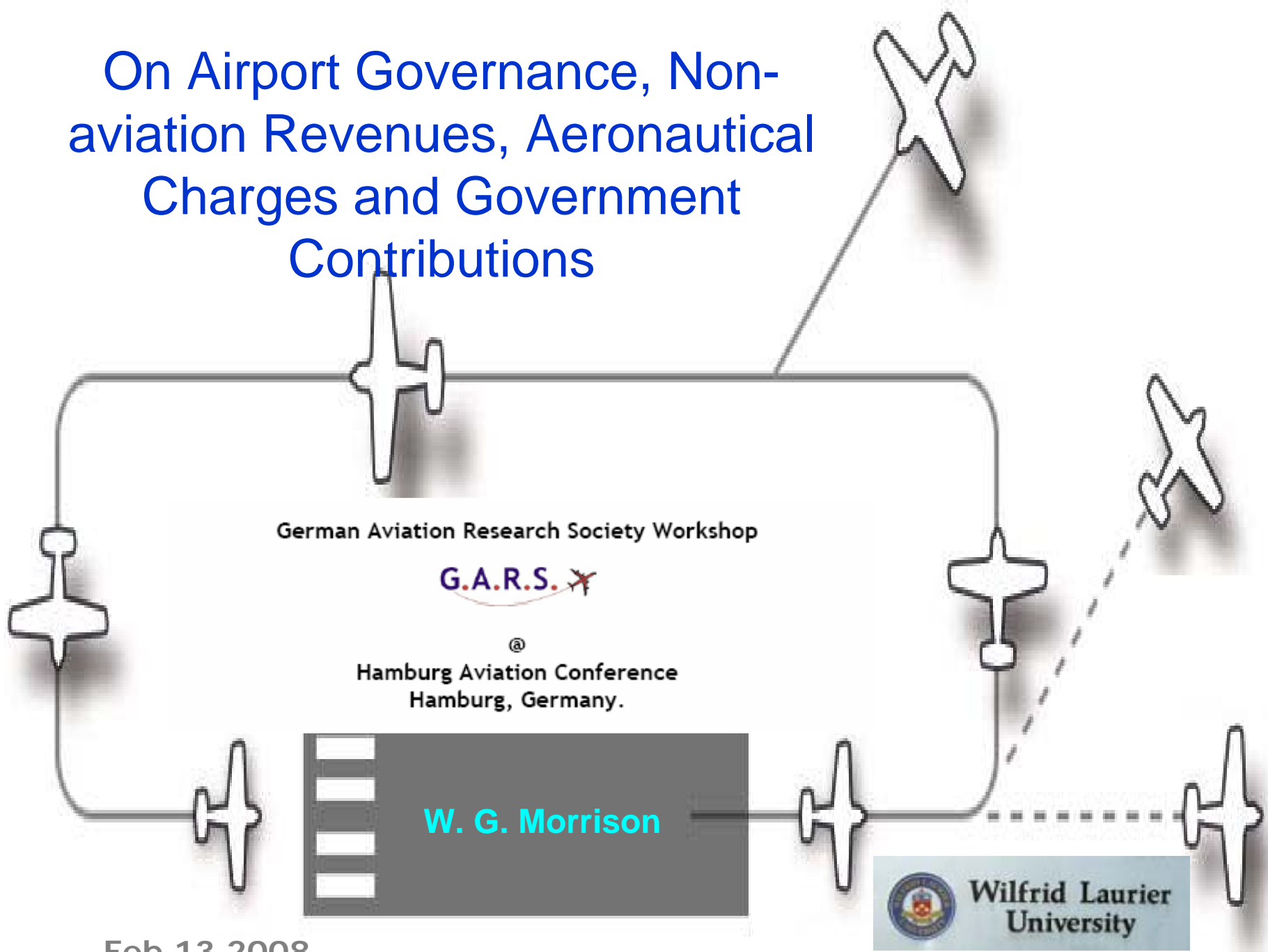


# On Airport Governance, Non-aviation Revenues, Aeronautical Charges and Government Contributions



Feb 13 2008

# Agenda

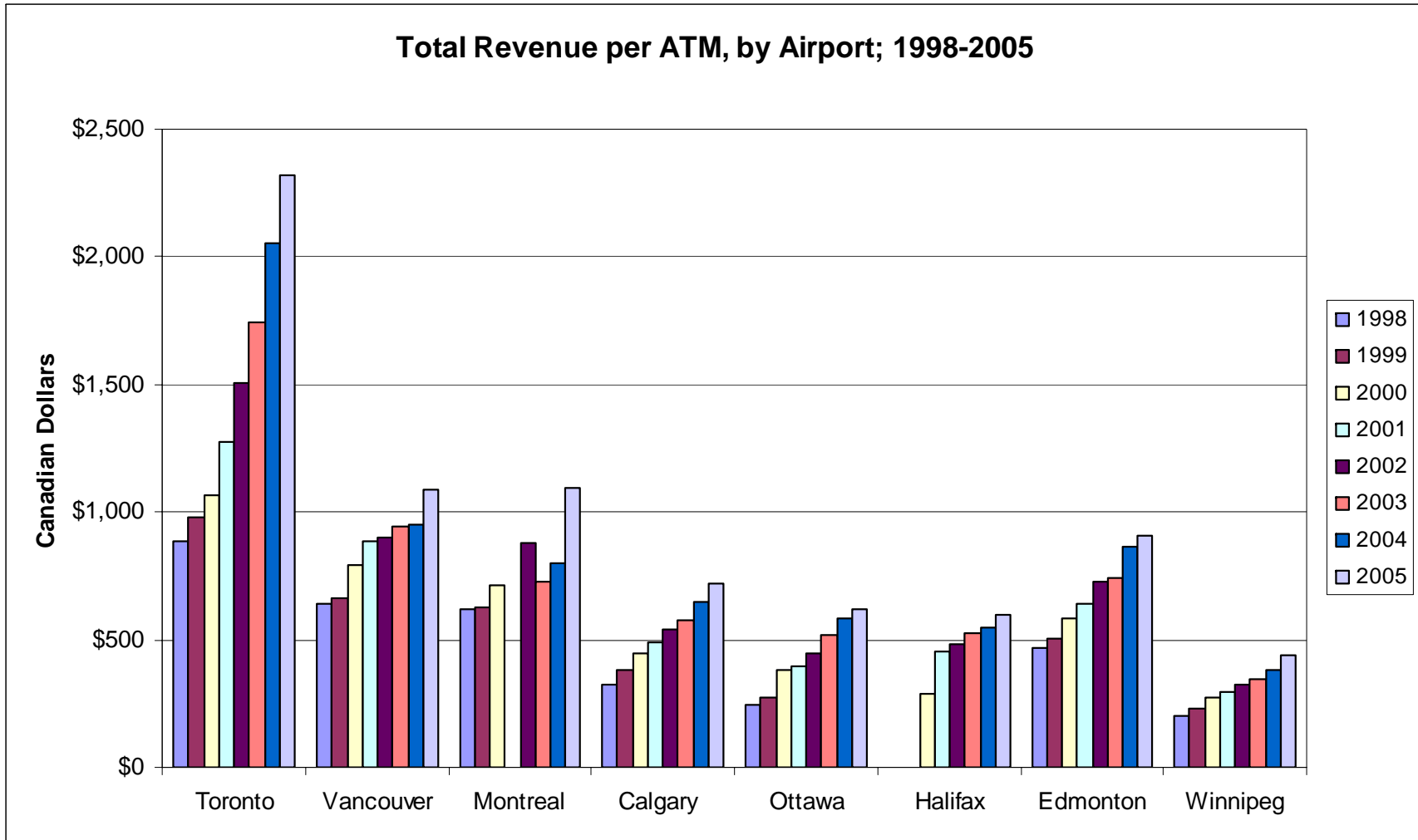
- Introduction
- Airports are different
  - Non-aviation activities at Canada's airports
- Modeling airports as 'dual till' entities
- A simple (workable) model structure
- Application of the model:
  - Issues arising from the payment of ground rent by Canadian airports

# Airports in Canada

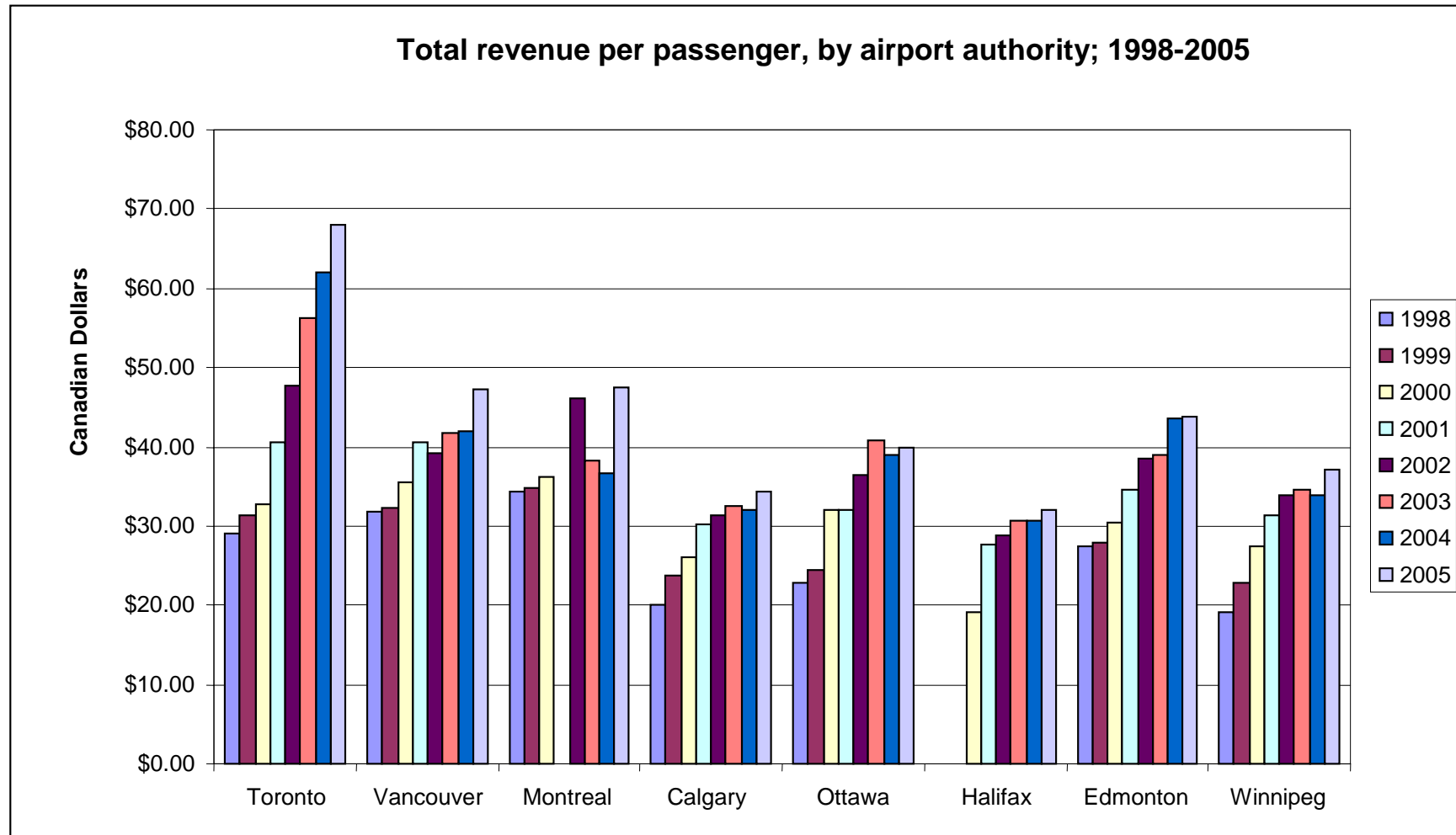
**2004**  
**pax and rent:**  
**top eight airports, Canada.**

	PAX	Ground Rent
YYZ	26,830,507	\$130,394,000
YYC	8,712,061	\$24,263,000
YWG	2,899,299	\$2,905,000
YEG	3,911,045	\$7,920,000
YVR	14,279,953	\$73,900,000
YMX/YUL	10,291,510	\$19,452,000
YOW	3,581,396	\$11,643,000
YHZ	2,903,951	\$4,240,000
Total (top 8)	73,409,722	\$274,717,000
Canada	87,484,550	
Top 8 as % of Canada	83.91%	
YYZ as % of Canada	30.67%	
<b>YYZ as % of top 8</b>	<b>36.55%</b>	<b>47.46%</b>

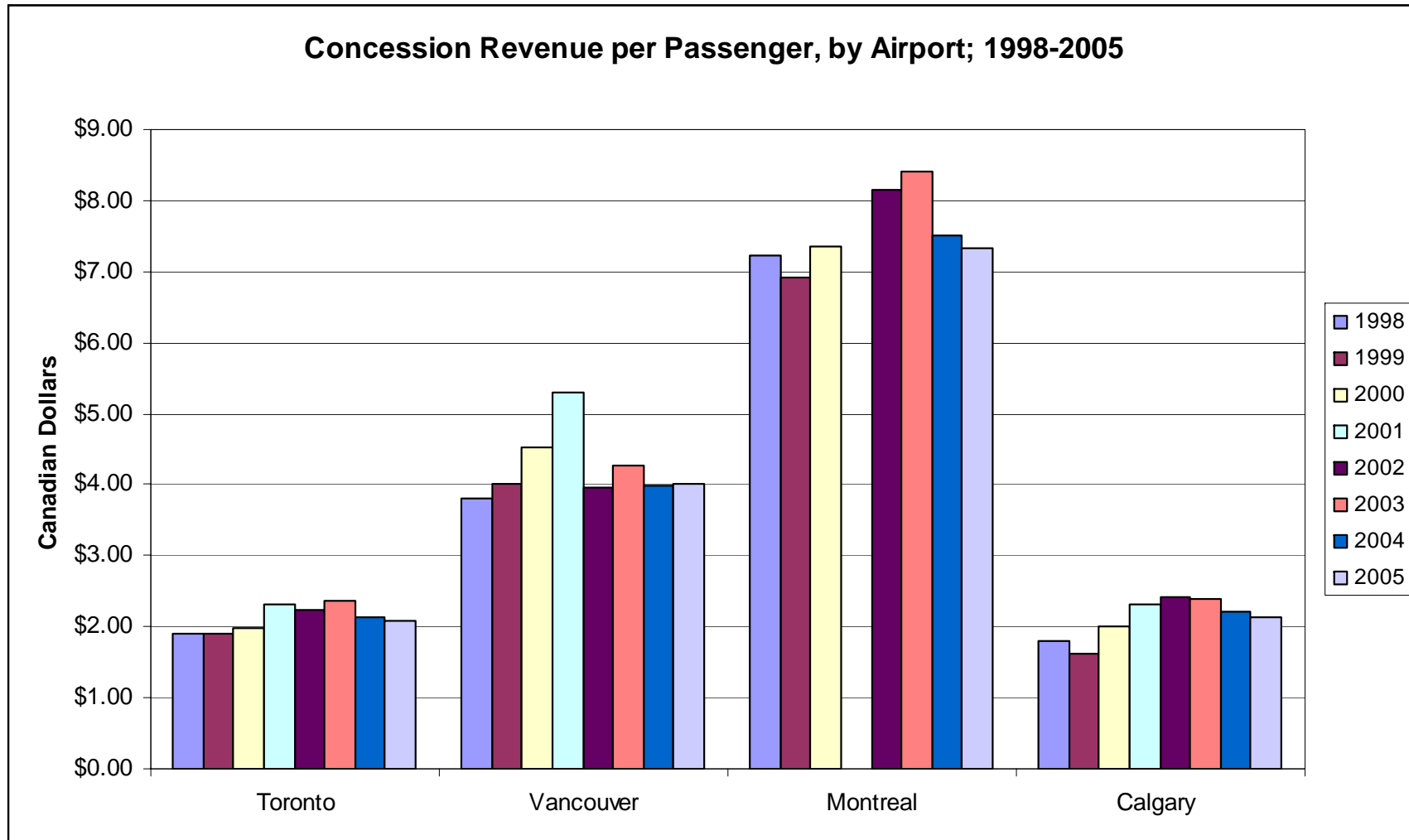
# Airports in Canada



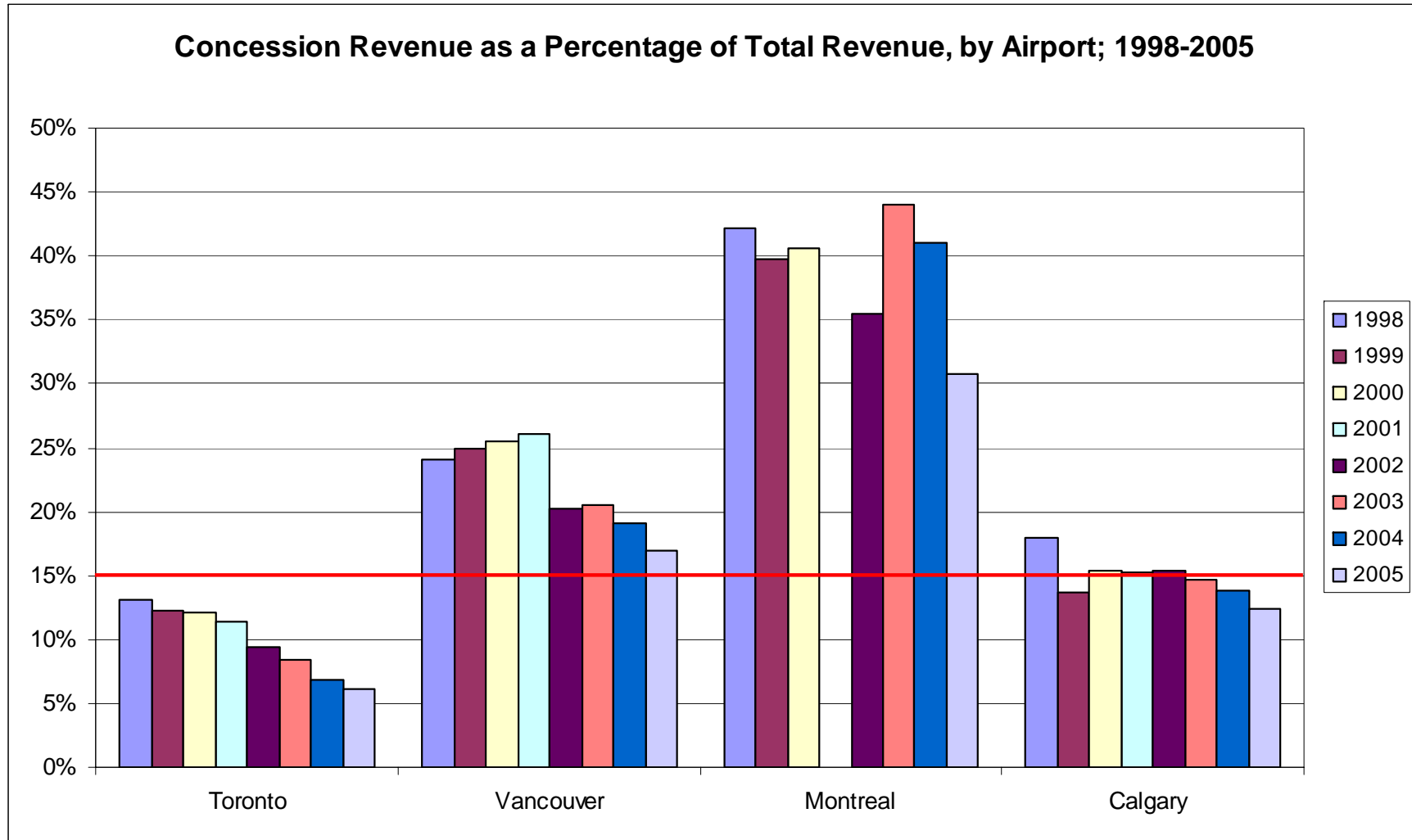
# Airports in Canada



# Airports in Canada

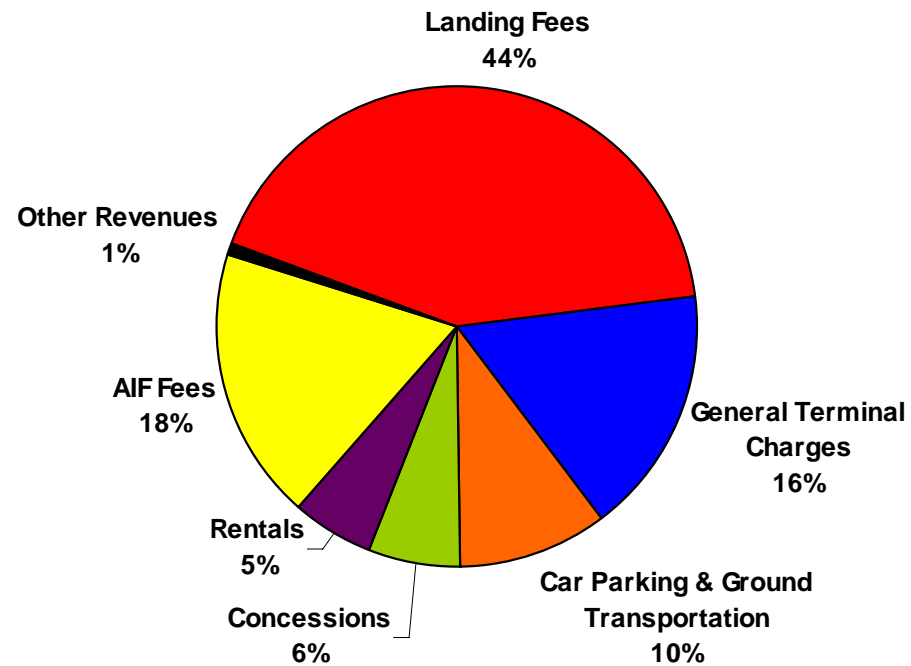


# Airports in Canada



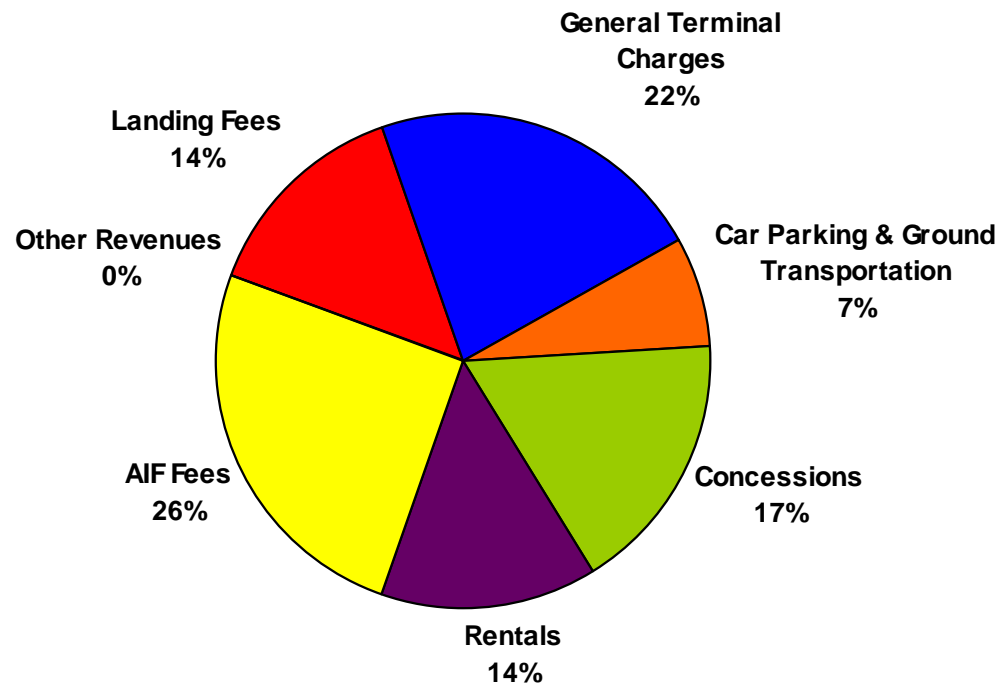
# Airports in Canada

Toronto Revenue Breakdown - 2005



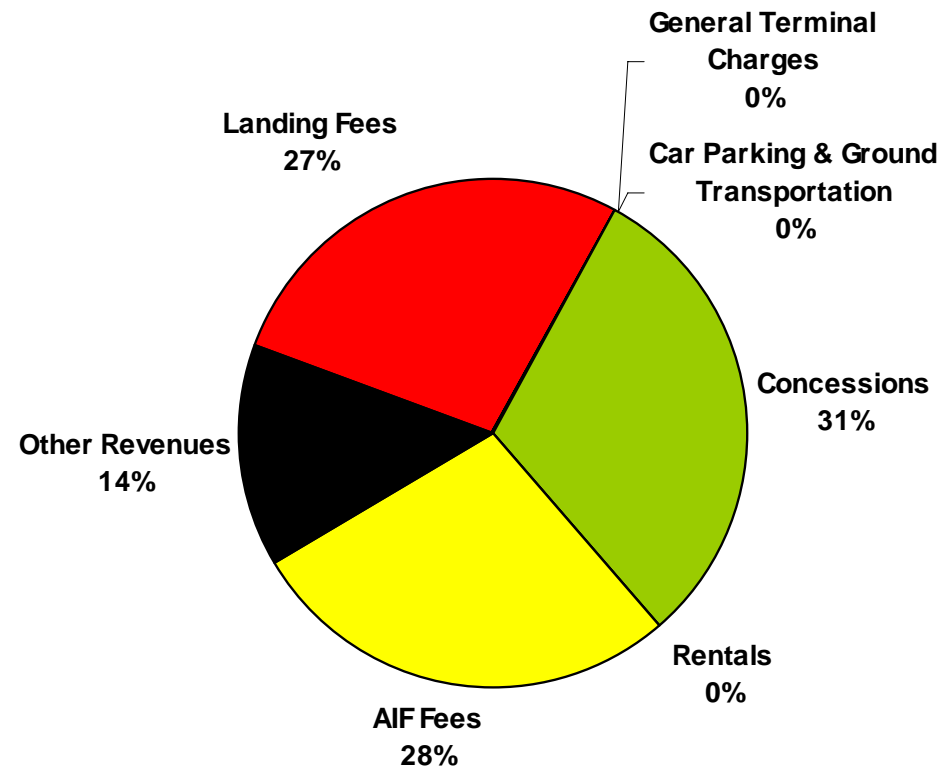
# Airports in Canada

Vancouver Revenue Breakdown - 2005



# Airports in Canada

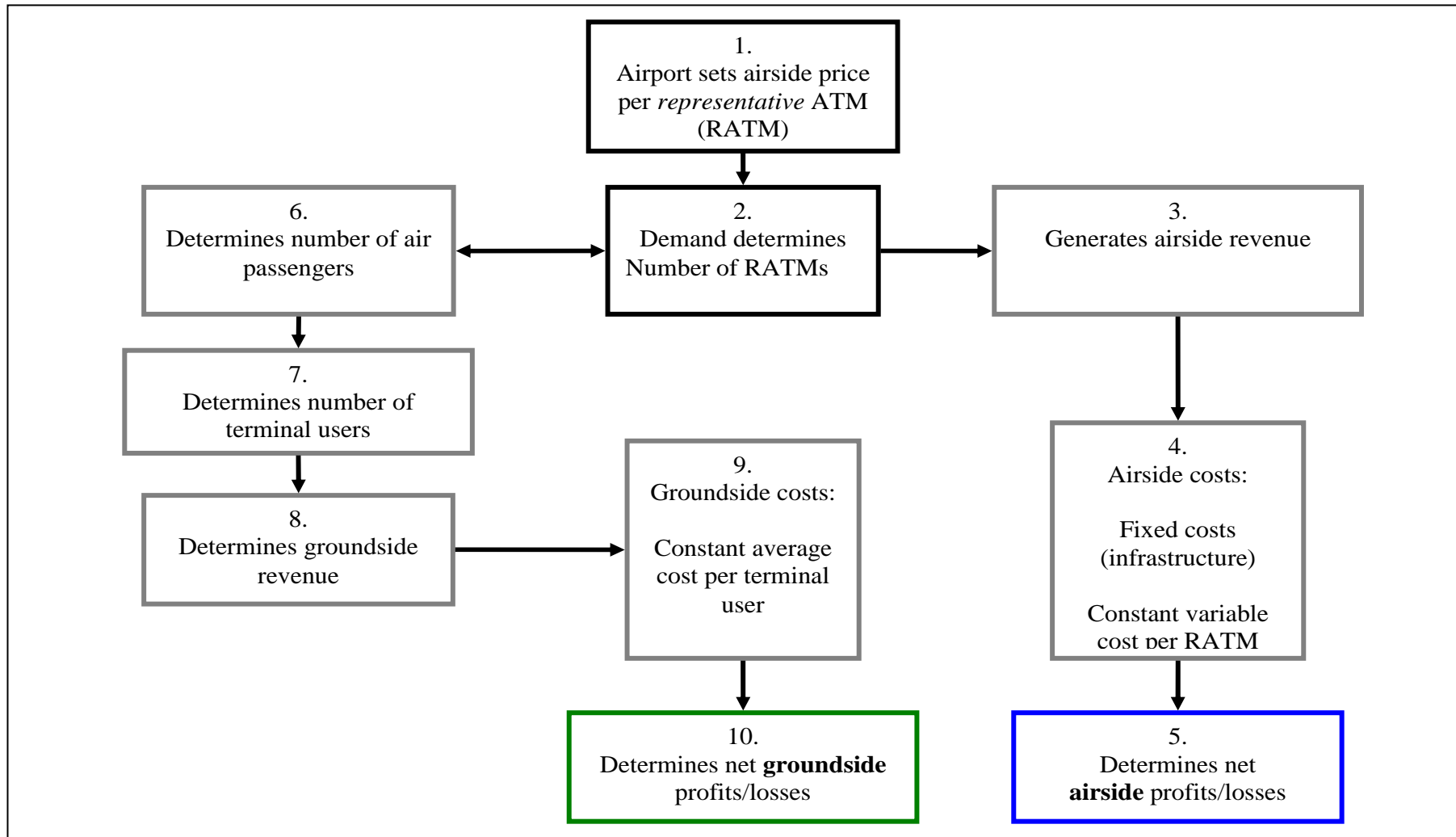
Montreal Revenue Breakdown - 2005



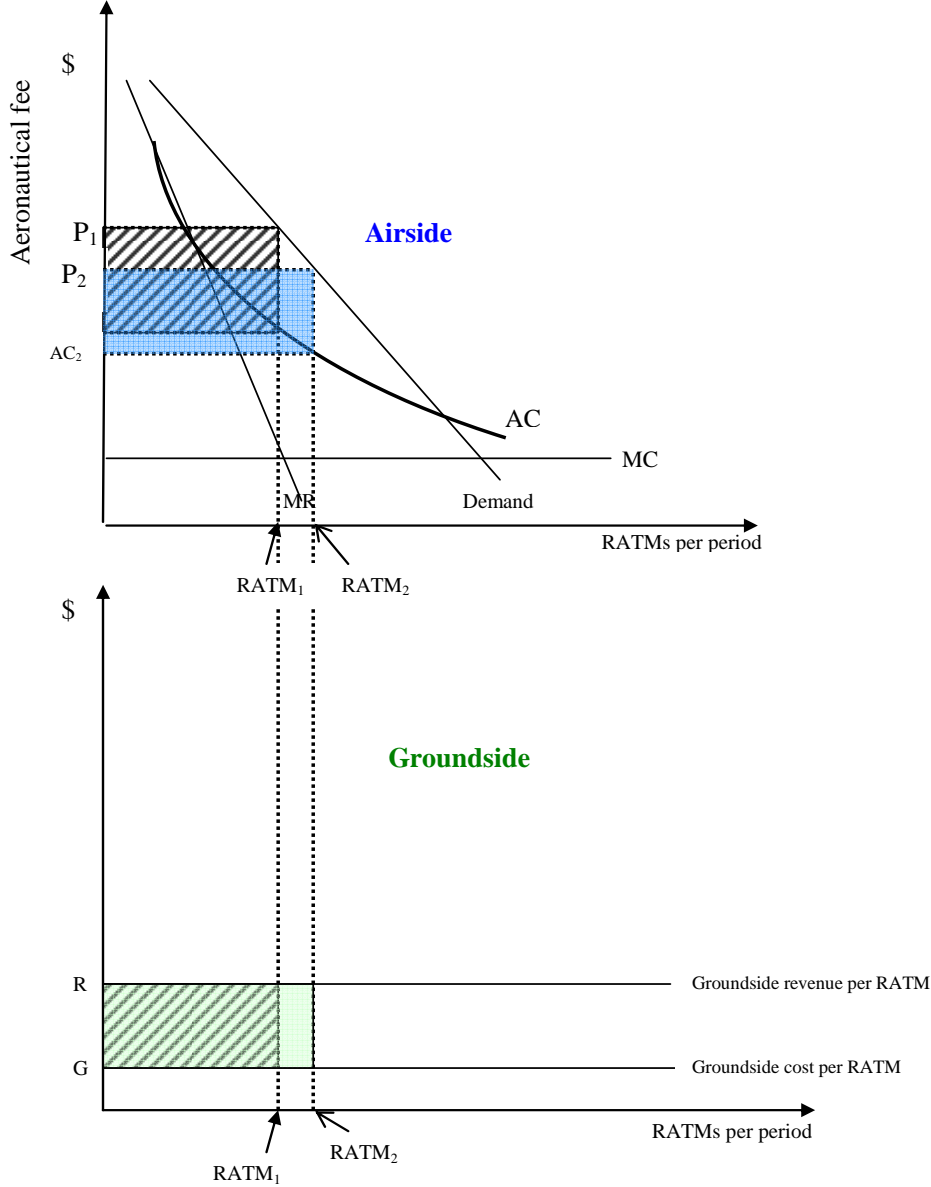
# Model assumptions

- Linear demand for “representative” ATMs by airlines (RATMs)
- A single RATM is assumed as the implicit weighted average of all ATMs at the airport
  - ❖ The airport charges a single RATM price (the weighted average of all ATM prices at the airport).
- Constant unit operating costs per RATM on the airside
- A constant number of terminal users per RATM is assumed (pax + other users)

# Theoretical model

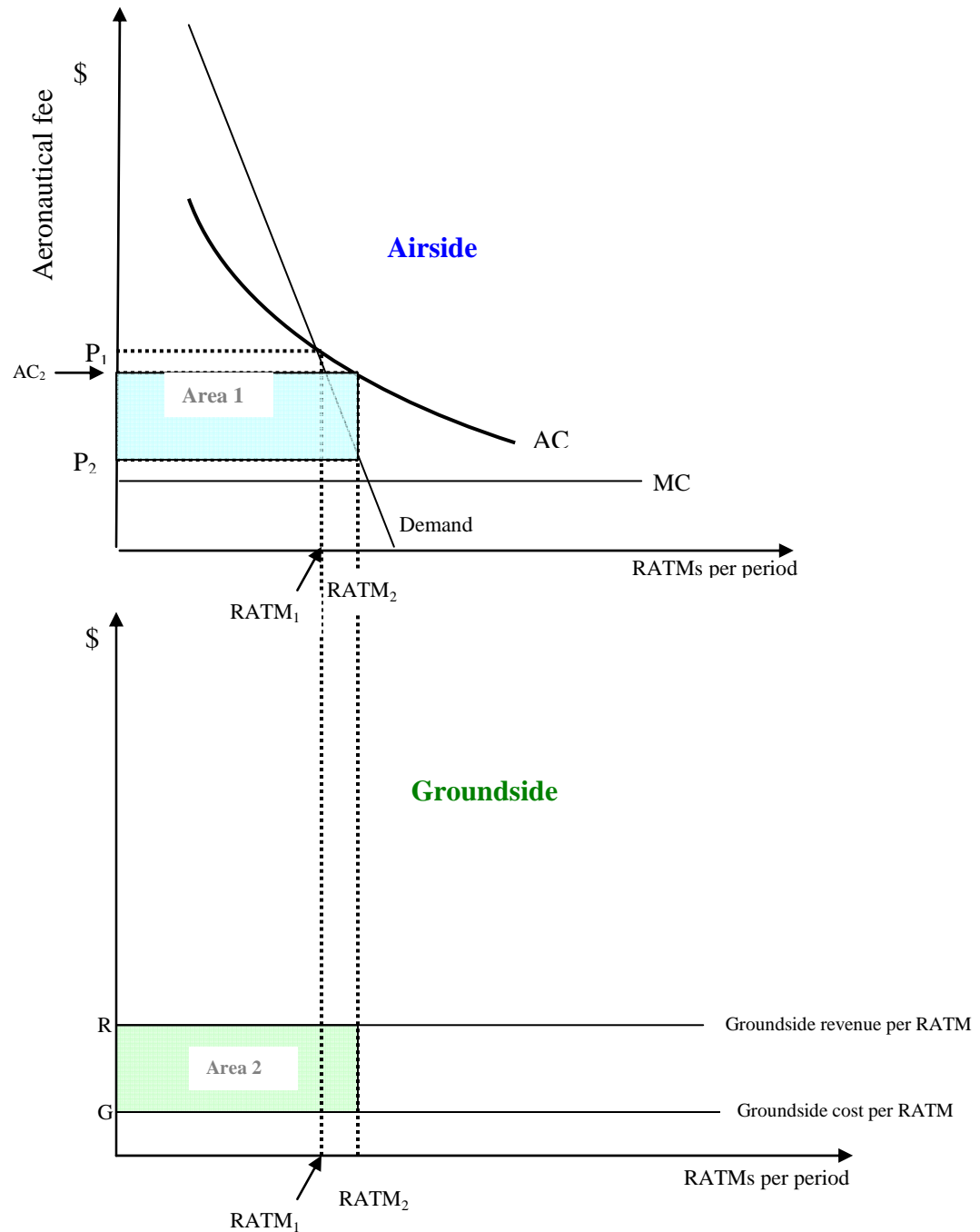


# Unconstrained dual-till operations: for-profit airport



# Theoretical model

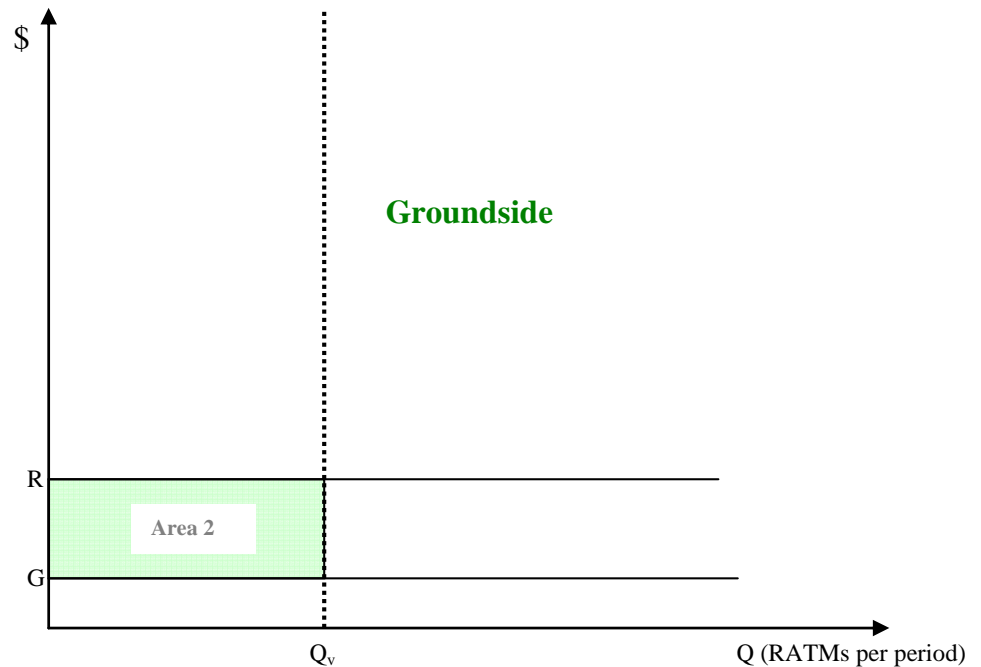
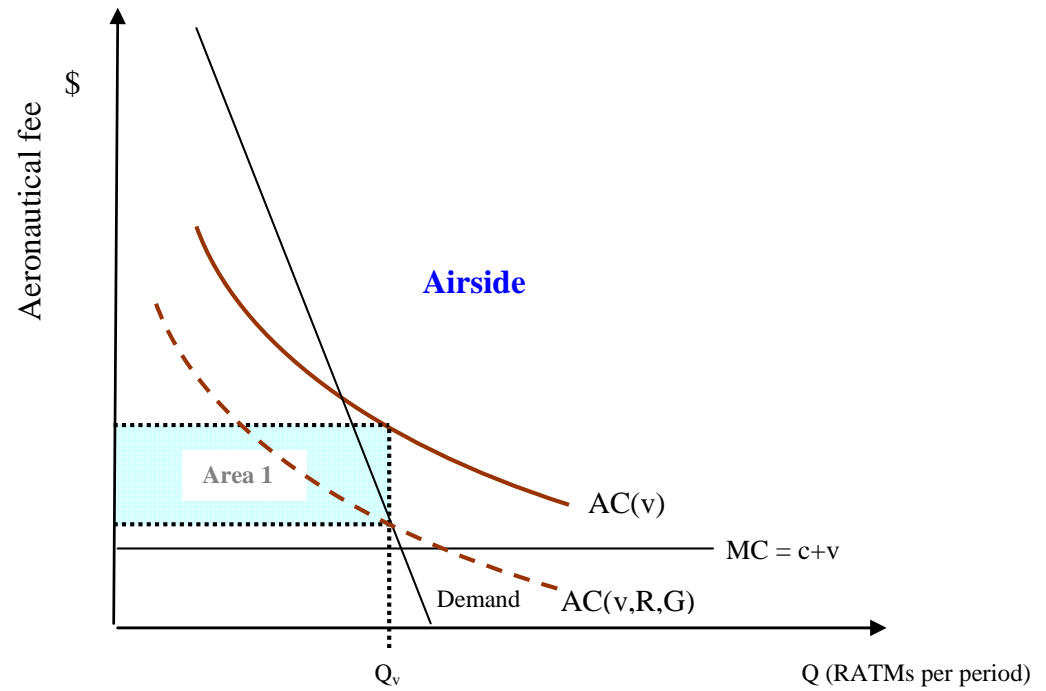
# Non-profit Dual Till



# Theoretical model

## Dual Till tax comparison

### pax tax

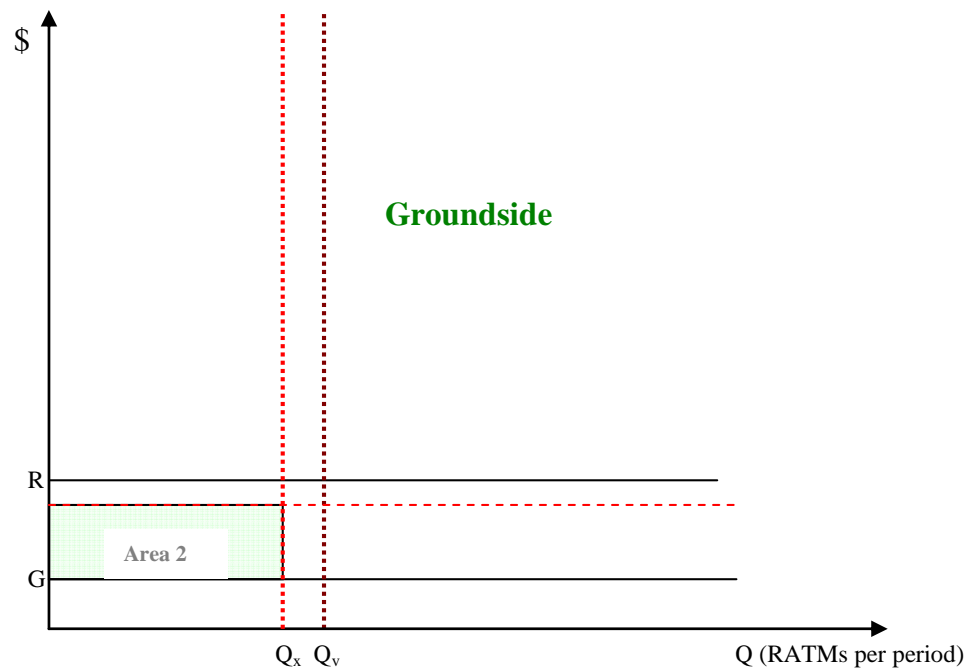
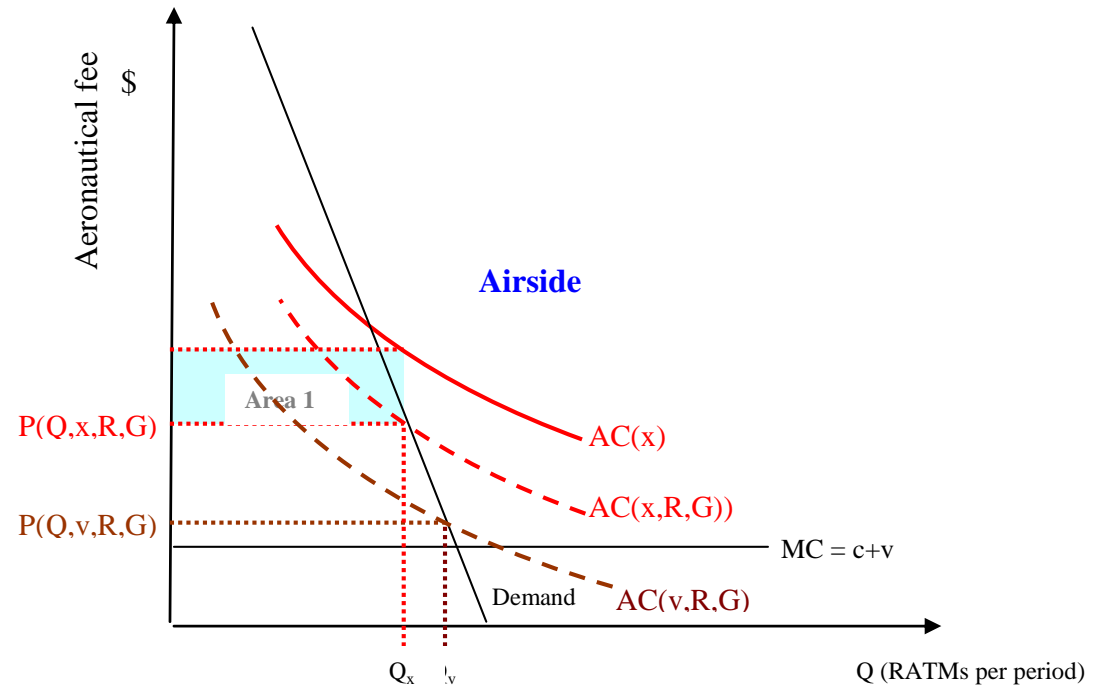


# Theoretical model

## Dual Till tax

## comparison:

## Ad valorem (revenue) tax



# Implications of dual till analysis of ground rent

- *The application of a unit (per passenger) tax as an alternative means of collecting ground rent from airports would likely mean de facto rent reduction for airports but would result in lower airside prices.*
- *These lower airside prices would create an increase in social welfare, in the form of additional consumer surplus, shared by airlines and passengers (to the extent that airlines pass on airport cost savings in the form of lower fares).*

*But...*

# Issues and extensions

- Cross-price elasticities and airport competition
  - Canadian versus US airports
  - International hub competitiveness
- Incentives and agency
  - Not-for profit incentives to 'gold plate'
    - ❖ Stage 1: Airport max  $V(S, \pi^*)$ , wrt  $S(E)$  at cost  $K(E)$
    - ❖ Stage 2: Max  $Q_1$  st  $\pi(Q_1, Q_2) = 0$
- Not-for-profit incentives and non-complementary non-aviation activities



*Vielen Dank!*