

Peak Pricing and Price Regulation of Airports



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Key Points



- While working of slot markets for airports capacity are important, price structures are equally so
- Efficiency aspects: Use of the off peak capacity, and who gets the slots
- Regulation influences choice of price structures
- Average revenue price caps work tolerably well but not perfectly

Outline



- Background
- Efficient pricing/ regulatory incentives
- Efficient pricing under price caps
- Perspectives on actual pricing
- Conclusions

Background



- Busy airports- busy peaks or always busy
- Slots ration demand to capacity
- Prices cannot ration- constrained to be too low
- Hence less attention to price structures
- Still extensive use of differentiated prices (weight/ passenger) based even at busy airports
- Concentrate here on SR

Institutions



- Originally public ownership
- Extensive full privatisation- UK, NZ, Australia
- Partial privatisation- Germany, Greece, Austria
- Price regulation- often of price cap form
- Regulation impacts on incentives

Efficient Pricing



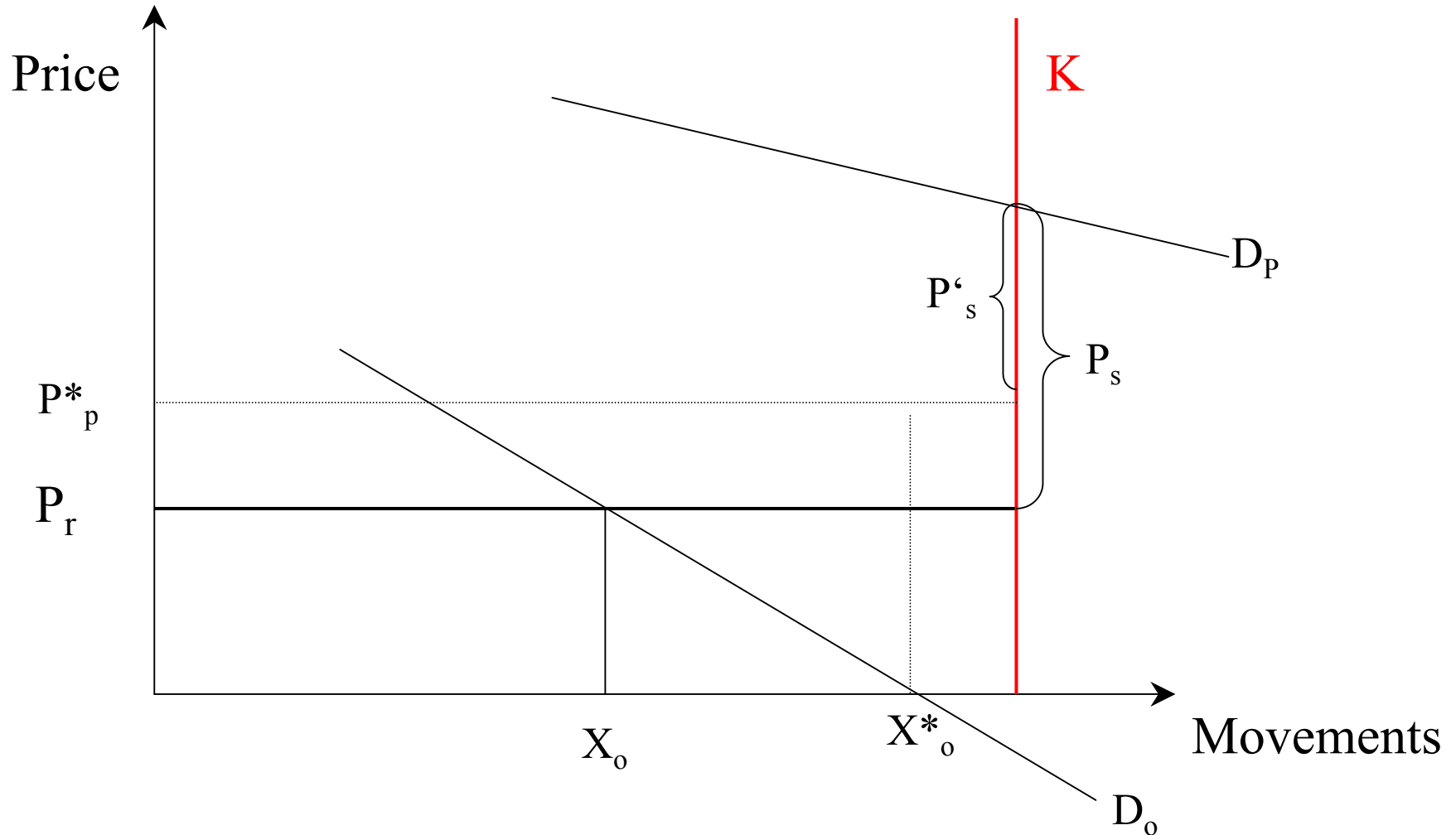
- Adequate capacity- MC; if cost recovery problem, use Ramsey pricing
- Modest peaks- peak pricing, with Ramsey pricing if cost recovery a problem
- Unregulated moderately busy airports- peak pricing without Ramsey

Pricing under Regulation



- Regulation stops rationing prices from being used
- Slots must be allocated
- Peak prices are irrelevant- slots do the rationing
- But off peak prices are relevant- set at MC
- Achieve efficient use of airport at off peak

Moderately Busy Peak

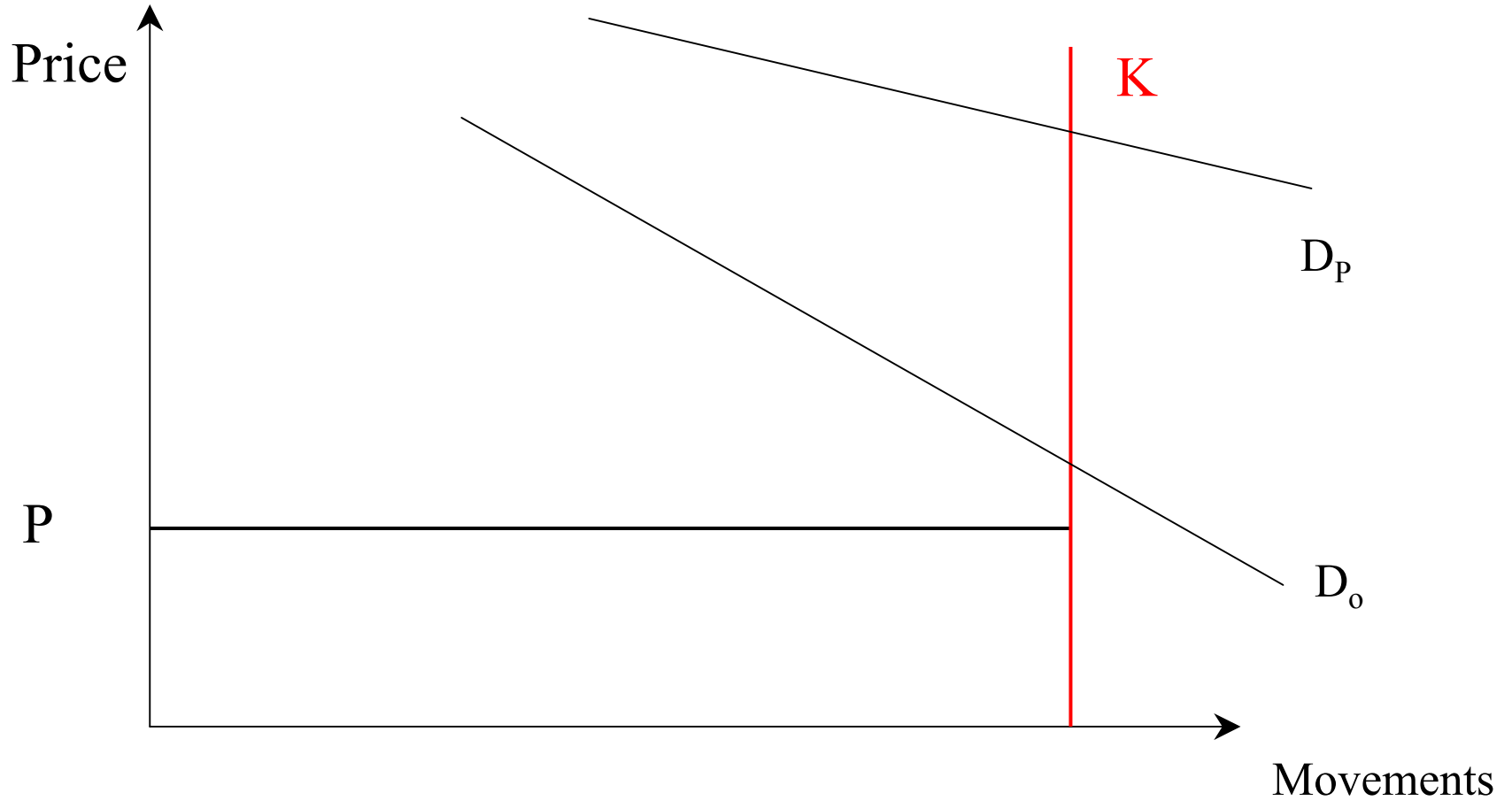


Very Busy Regulated Airports



- Price regulation means that prices at peak and off peak are too low to ration capacity- slots must be used all the time
- Prices are irrelevant- slots do it all
- With non homogeneous movements, there should be uniform prices

Very Busy Airports



Two Efficiency Issues



- First: peak/off peak pricing. Peak prices are irrelevant but off peak prices should =MC and optimise utilisation
- Second: Slots for a specific period should go to users with the highest WTP-achieved with a uniform charge
- Does price regulation of airports encourage this?

Incentives for Pricing Efficiency



- Not true that price caps = efficient price structures
- Some forms of price caps induce efficient pricing under some circumstances
- Eg price basket caps and peak prices
- Airports pose particular problems- capacity constraints and slot rationing change the optimisation problem
- Price caps have induced (been accompanied by) some changes in prices in London

Moderately Busy Airports

- Suppose price cap on average revenue (per movement/passenger)
- Common
- Airport gains from maximising output
- But; will try to have negative prices for the off peak
- Where the MC of a passenger > 0 , will set passenger charge less than MC

Very Busy Airports

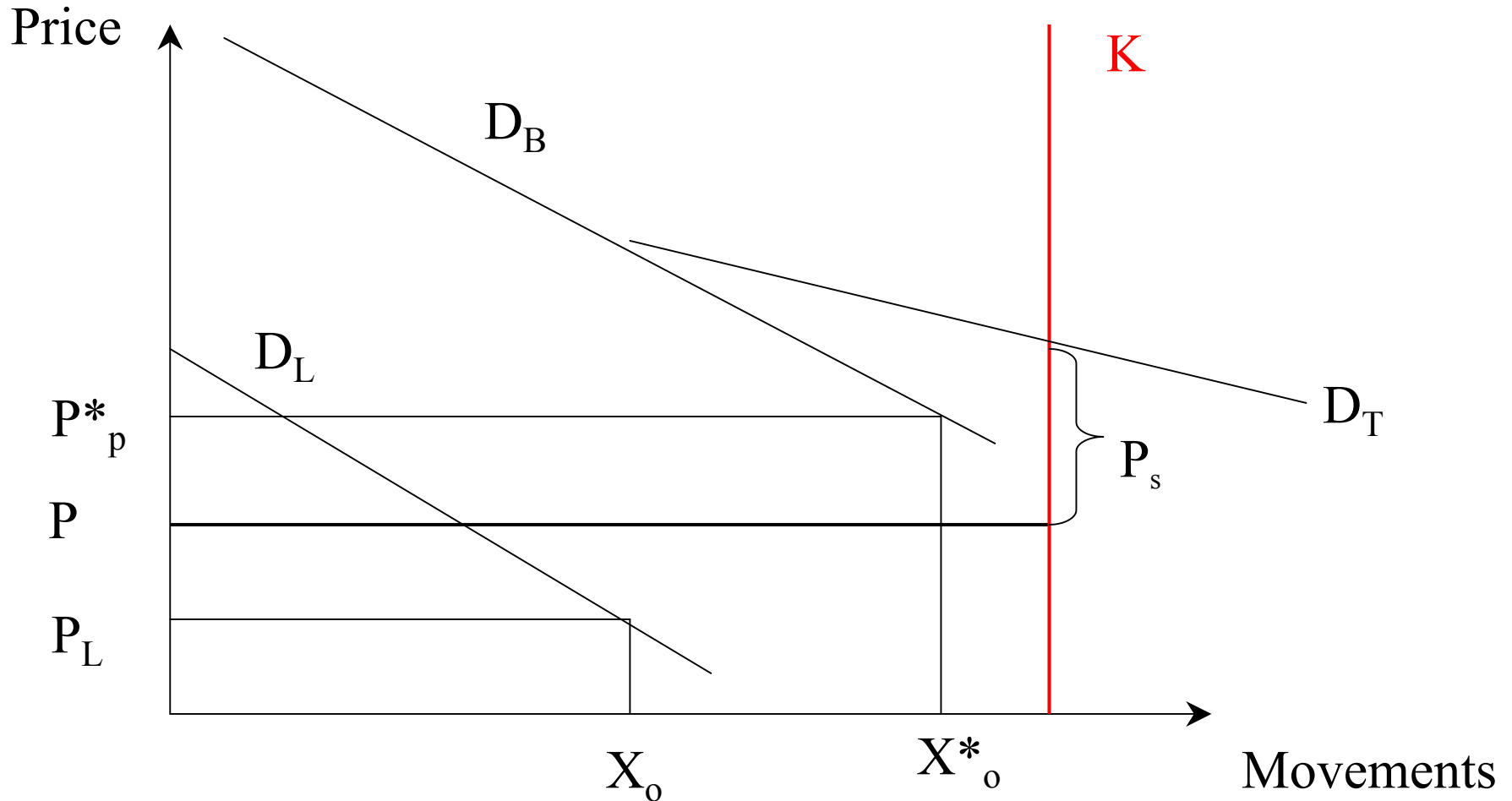


- Pricing irrelevant
- Regulation has no impact on pricing

Busy Airports with Differentiated Output

- Large and small movements
- *Correlated* with willingness to pay
- Differential prices are inefficient- uniform prices for all movements maximise efficiency
- Price cap on average revenue per movement has no effect- movements are constrained
- Price cap on average revenue per passenger creates incentives to maximise passengers per movements
- Not ideal, but uniform charges work well to do this
- Where $MC \text{ of pax} > 0$, will tend to set price per pax less than MC
- Encourages inefficiently large movements

Pricing with Differentiated Users



Perspective



- Most busy airports do not price efficiently
- May be government owned/dominated
- Results here apply for true price caps- actual “price caps” may be cost plus
- Strategic behaviour- getting the major airlines on side
- Learning process- takes time to adjust
- Legal restrictions on change?

Further Work



- Long run and investment
- Price baskets
- More complex price structures - MC of aircraft movements
- Evaluation of actual price structures
- Responses to actual price regulation

Conclusions



- Price structures are as important as slot markets
- Efficient price structures fairly straightforward
- Price regulation means slots are required to ration capacity, but prices still serve two important allocative functions
- Average revenue price caps work fairly well, though they create incentives to underprice passengers
- Airports have shown reluctance to implement efficient pricing

A Final Thought



- If we wish to allocate airport capacity efficiently, then we need to:
- Get slot market working well, and
- Get airports to adopt efficient price structures
- Relatively easy to set up an efficient slot market (but some reluctance)
- But it is difficult to design regulation to induce airports to choose efficient prices
- This problem, more so than slot markets, needs more research