9. REGULATION

Readings for Lecture 9

- Goetz, A. R., & Vowles, T. M. (2009). The good, the bad, and the ugly: 30 years of US airline deregulation. *Journal of Transport Geography*, *17*(4), 251-263.

Learning Objectives

- Basic principles of regulation
- Case study of British infra provider

9.1 REGULATION

Introduction

- This presentation is concerned with control and specifically the control by relevant authorities on the levels and behaviour of transport users and operators under their control
- It concerns all areas of transport, whether that be public, private or freight

Forms of regulation

- Specify the price to be charged
- Specify the maximum increase in price allowed
- Regulate the (final) price through the tax charged on the good or service
- Specify the rate of return (profit) to be gained
- Through introducing yardstick competition
- Specify a minimum frequency
- Limit market entry

The rationale for the regulation

- To overcome the market failure or imperfect/asymetric information
- The market can no longer regulate itself
- To correct for externalities
- To ensure the quality of the service provided
- To provide a transport service where none existed before
- To improve efficiency within the industry

The drawbacks of economic regulation

- Limits free enterprise
- Inefficient, second best solution
- Asymmetry of information
- The issue of regulatory capture
- Cumbersome regulatory procedures make avoidance of regulatory measures possible

Discussion questions

1. What are some of the main problems associated with government regulation of transport industries?
2. What are some of the ways in which the effects of an airport monopoly might be countered in the marketplace?
3. If monopolies are social undesirable why does a government actually support having some?

Discussion questions

4. Provide examples illustrating how markets change from one structure to another when technology or other market conditions change.

5. What are the implications for the regulatory authorities of the existence of contestable markets?

6. Outline the main role and responsibilities of a regulator in the transport industries.

9.2 Regulation and deregulation

Based on Ch. Nash (2005)
Privatization in Transport

History (1)

- 1970s – in much of the world, transport had become a largely public sector activity
- Roads, railways, airports and many ports were publicly owned
- Rail most bus and coach services and many air services were provided by public sector operators
- The one big exception to the rule was road haulage

History (2)

- 1980s – transport policy moved progressively in the direction of the market approach and widespread privatization of transport operations and sometimes even infrastructure took place
- UK under M. Thatcher – deregulation of express coach services in 1980s; deregulation and privatization of most local bus services, privatization of the major airports, ports and British Airways; privatization of rail

Why public ownership?

- Natural monopoly argument
- Transport so fundamental that it requires a degree of central planning and control
- Large external benefits and costs of the transport

What went wrong?

- Government decision taking may not always be competent (SR political advantage x LR objectives)
- Publicly owned organizations lacked strong incentives to achieve high quality services at minimum cost
- Transport sector has heavy requirements for investment

Is privatization the solution?

- Privatization can lead to clear and explicit objectives, where operators are motivated by profits
- Politicians need to make explicit arrangements, through regulation, taxes, or subsidy, to achieve their political and social objectives
- Together with hard budget constraint and takeover threats should be enough to increase efficiency

Competition …. ?

- However, privatization has most often been accompanied by action to open up the market to competition, by removing regulatory and other barriers to entry
- Competition would lead to provision of services and infrastructure at minimum costs and maximum innovations

Potential pitfalls

- Much of the transport sector was seen as a natural monopoly – competition can lead to loss of economies of density
- Technical efficiency is likely to be maximized by a competitive approach, whereas revenue from asset sale is highest when the company concerned retains a monopoly

Solution?

- Natural monopoly confined to the infrastructure and it is perfectly possible to have competing operators over the same infrastructure.
- What about the infrastructure? – privatization, cost-plus regulation, franchising?

9.3 Rail freight deregulation in North America

Exercise

Larson (2013) analysed deregulation of US rail industry that happened after 1980. Based on the table would you call this deregulation success or failure?

	CDRR	BTM	TnC	Haul	TM/EH	Track	Class I	Oil	Prime
1970	5.96	765	2.363	490.4	605	336.3	71	3.35	7.91
1980	5.94	919	3.059	615.8	863	270.6	40	37.38	15.26
1990	3.69	1034	6.207	725.7	1901	200.1	14	24.49	10.01
2000	2.54	1466	9.177	843.3	3293	168.5	8	30.30	9.23
2007	2.82	1771	12.027	912.8	4182	161.1	7	72.36	8.05

CDRR (constant dollar rail rates) = revenue per ton-mile/GDP price deflator (2005 = 1.0); BTM (billion ton-miles); TnC = millions of trailers and containers; Haul = average haul length (miles); TM/EH = ton-miles per employee hour; Track = miles of track (thousands); Class 1 = # of class 1 railroads.

History

- Railways in North America privately owned and vertically integrated
- From 1890s – tight regulation of rail freight tariffs + obligation to operate loss-making passenger rail services
- 20th century → tight regulation + increasing competition from road and air = problems (losses) for US rail companies

Penn Central

- 1970 – bankruptcy of Penn Central – threat to all rail traffic and industrial production in north-east of the US
- US government took action → it took over Penn Central, restructured it (7.8 bn USD) and privatized again (2 bn USD) in 1987

Amtrak

- 1971 – US government created Amtrak – state owned operator of passenger rail services that took over from private companies 50% of the operation of unprofitable passenger rail operations. The other 50% was cancelled one for all
- Amtrak subsidized by US government by 1 bn USD per year
- Amtrak owns 1000 km of attractive infra (North East Corridor) -

Amtrak

- Amtrak owns 1000 km of attractive infrastructure in North East (Boston-New York-Washington) where due to high speed parameters creates about 50% of total revenues
- In the rest of the network is Amtrak host operator on the infrastructure of freight railways, however it has the legal right for entry at marginal costs

Deregulation

- 1980 → Staggers Act; higher freedom to set rates
- Results: impressive growth of output + significant employment decline = efficiency improvement jump
- Welfare gains → net benefits to customers because due to competition, tariffs went down
- Operators → profitable again

Competition

- Competition of vertically integrated firms
- Significant process of mergers and acquisitions
- 7 big Class I railways

Recommendations

- Eliminate cross-subsidies
- Intermodal competition and competition of vertically integrated rail companies
- Deregulation leads to better services
- Rail freight to be vertically integrated and private
- To have pragmatic approach both in ownership and competition attitude

9.4 Deregulation of US airlines

Based on Goetz, A. R., & Vowles, T. M. (2009). The good, the bad, and the ugly: 30 years of US airline deregulation. *Journal of Transport Geography*, *17*(4), 251-263.

Deregulation

- Deregulation Act – October, 1978
- The government no longer engaged in economic regulation of the airline industry
- Private airlines allowed to make all decisions regarding entry, exit and fares

History

Table 1
The historical periods of US airline deregulation, 1978–2008.

Dates	Period	Airlines in ascendancy
1978–1983	Rise of the New Entrants, Part I	PEOPLExpress, New York Air, Midway, America West, Southwest
1983–1993	The Majors Strike Back: mergers, acquisitions, and increased concentration	American, Continental, Delta, Northwest, United, US Air
1993–1996	Rise of the New Entrants, Part II	ValuJet/AirTran, Frontier, Kiwi, Spirit, Vanguard, Western Pacific
1996–2000	Major responses	American, Continental, Delta, United
2000–2008	LCC Growth and 'Legacy' Decline	Southwest, JetBlue

Source: Authors.

Assessment

- Many experts claim the deregulation is a big success in terms of fares and ridership
- Others expressed concern regarding concentration, profitability and pockets of pains
- What is the fair assessment of the results of US airline deregulation?

Ridership

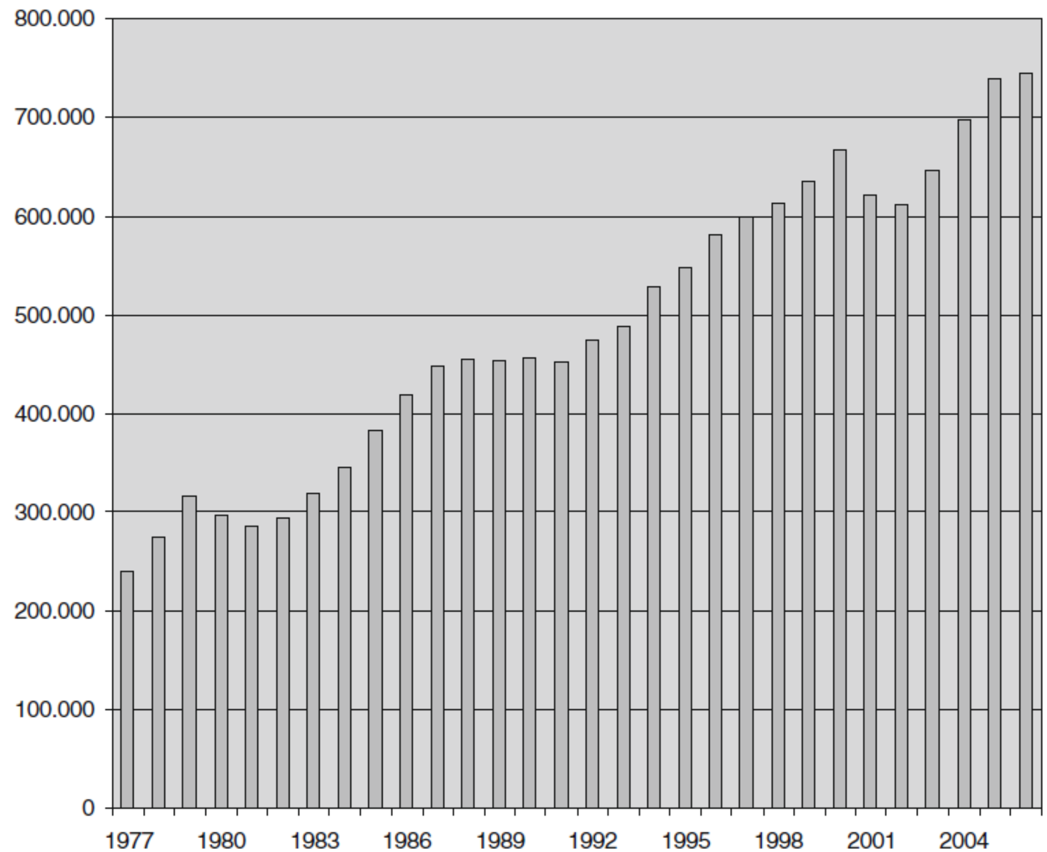
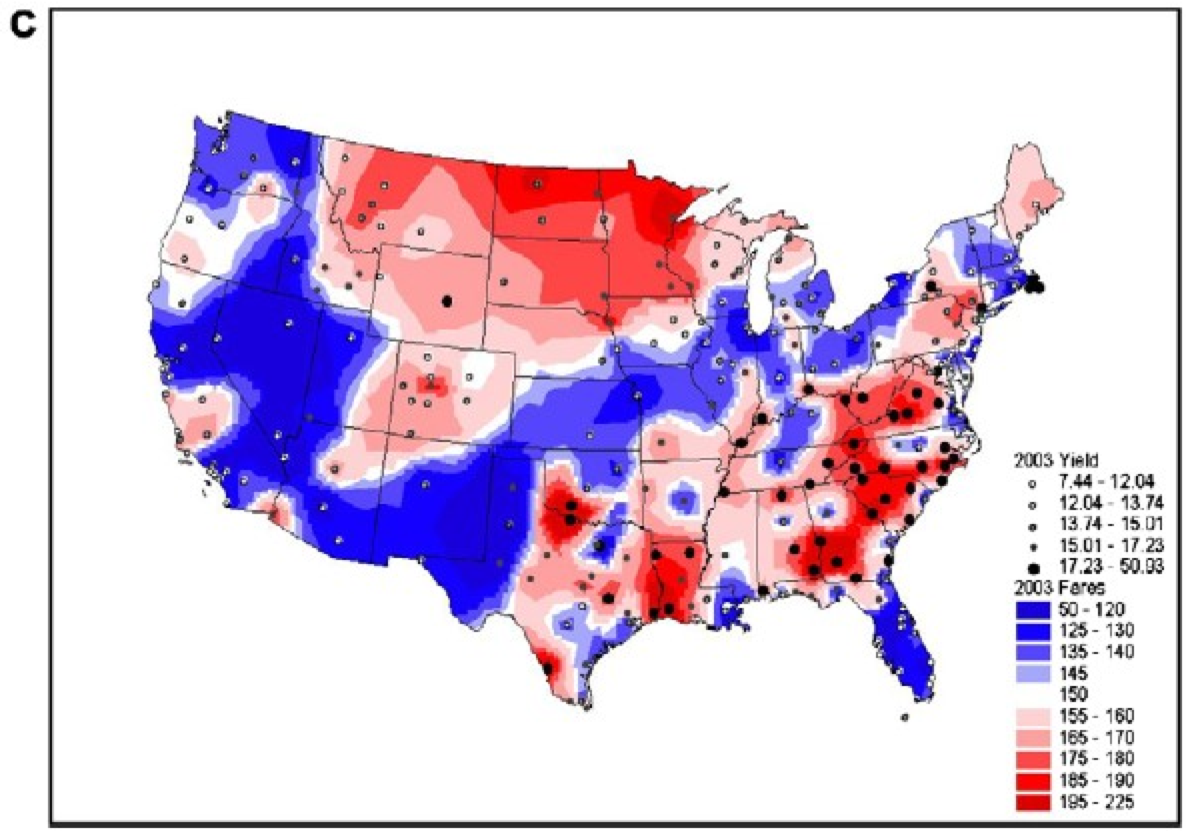


Fig. 1. Total US Airline Passengers, 1977–2006 (in thousands). *Source:* FAA Terminal Area Forecast (TAF), 2007.

Fares

Fig. 5. Average One-Way Fares, 1993–2007 (in US dollars). *Source:* The Airline Origin and Destination Survey (DB1B), Office of Airline Information of the Bureau of Transportation Statistics, 2008.

Fare distribution



Profitability

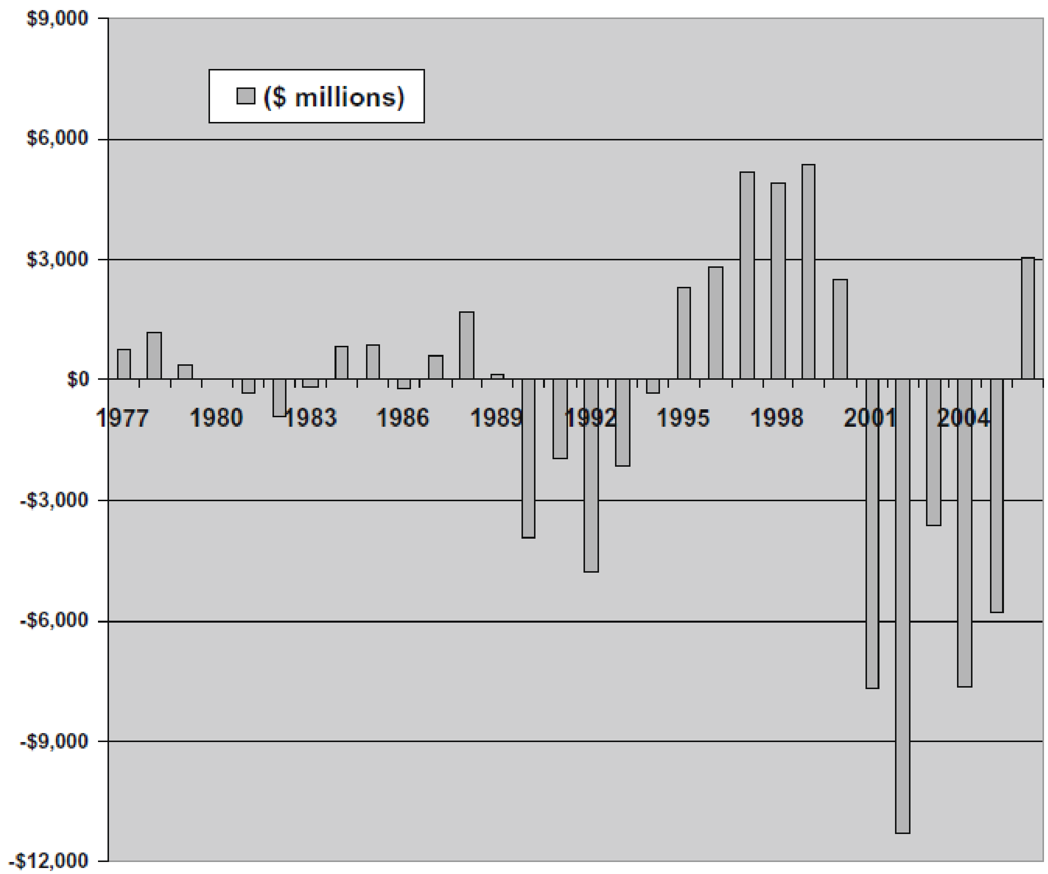


Fig. 10. Profits and Losses in the US Airline Industry, 1977–2006 (millions of US dollars). *Source:* US Air Transport Association, Annual Report of the US Airline Industry, 2007.

Bankruptcies

Significant US airline bankruptcies, terminations, mergers, and acquisitions, 2000–2008.

Airline	Entered bankruptcy	Exited bankruptcy	Ceased operations
Bankruptcies and terminations			
Midway	August 2001		October 2003
Sun Country			January 2002
Vanguard			July 2002
US Airways	August 2002	March 2003	
United	December 2002	February 2006	
Hawaiian	March 2003	June 2005	
US Airways	September 2004	September 2005	
ATA	November 2004	March 2006	April 2008
Delta	September 2005	April 2007	
Comair	September 2005	April 2007	
Northwest	September 2005	May 2007	
Independence	November 2005		January 2006
Big Sky			January 2008
Champion	March 2008		May 2008
Aloha			March 2008
Skybus			April 2008
Frontier	April 2008		

Airlines	Date
Mergers and acquisitions	
TWA acquired by American	April 2001
US Airways merged with America West	September 2005
Delta merged with Northwest	April 2008 (subject to regulatory approval)
United alliance agreement with Continental	June 2008

Source: US Air Transport Association (2008). http://www.airlines.org/economics/specialtopics/USAirlineBankruptcies.htm. Accessed August 8, 2008.

Conclusions

- Good → fares, services, ridership
- Bad → uneven distribution of results
- Ugly → financial and employment instability

9.5 Regulation of the infrastructure provider. Case study: Railtrack

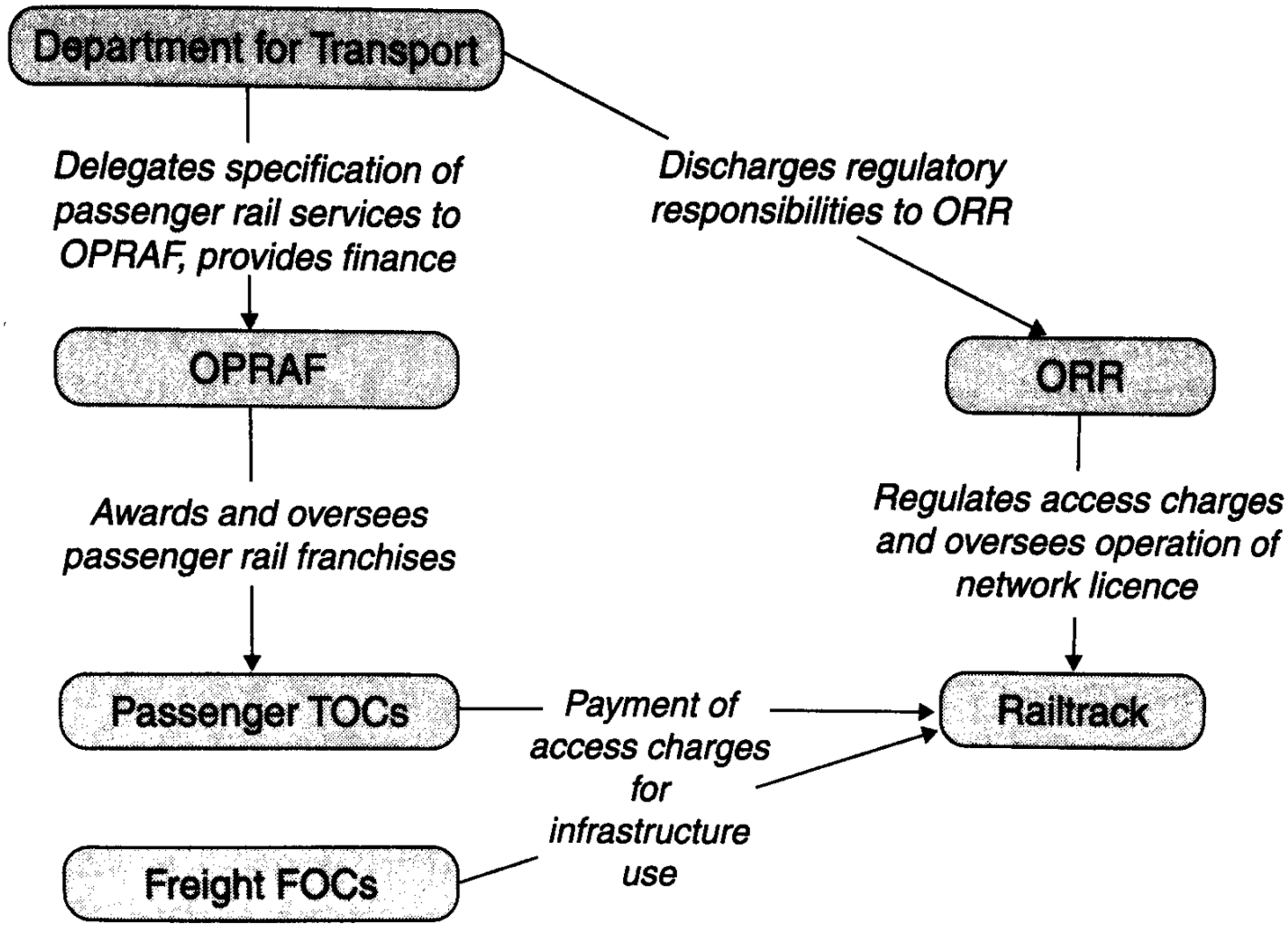
Case: Regulation of the British railway industry

- 1945 - 1994 – British Rail. Vertically and horizontally integrated single nationalized operator in the UK.
- 1994 - 1997 – British railway reform. British Rail divided into 104 separate companies with the main purpose to introduce competition at all levels of railway operation (train operating companies, rolling stock leasing companies, infrastructure maintenance and renewal companies).
- The majority of these companies were privatized

British infrastructure provider

- The one exception was the infrastructure provider, where it was considered that the advantages of having a single national network operator significantly outweighed the drawbacks of splitting the network up into separate geographical areas.
- This therefore left a monopoly provider of the infrastructure throughout the country
- This was organized into a company called Railtrack which was floated on the stock exchange
- All infrastructure access charges were to be at full cost
- As a result, the firm would return a profit and receive no direct subsidy except to assist the funding of railway investment
- The strong regulation was introduced to prevent the abuse of monopoly power

British rail industry regulatory structure 1997 - 2001



What went wrong?

- Railtrack investment needs, costs overruns on the major infrastructure projects
- Railtrack had effectively very little control over its own costs; loss of engineering expertise
- Broken rail at Hatfield (October 2000), resulting in a train derailment and four fatalities. Railtrack panicked and overreacted imposing severe speed limits on the network leading to widespread delays and chaos (2000 – 2001).
- Under the terms of track access agreements, Railtrack had to pay more than 500m GBP to train operating companies as a result of the disruption caused.
- This combined with major cost overruns led to bankruptcy of Railtrack in October 2001 and it was replaced by non-profit organization Network Rail.

British rail infrastructure provider – results

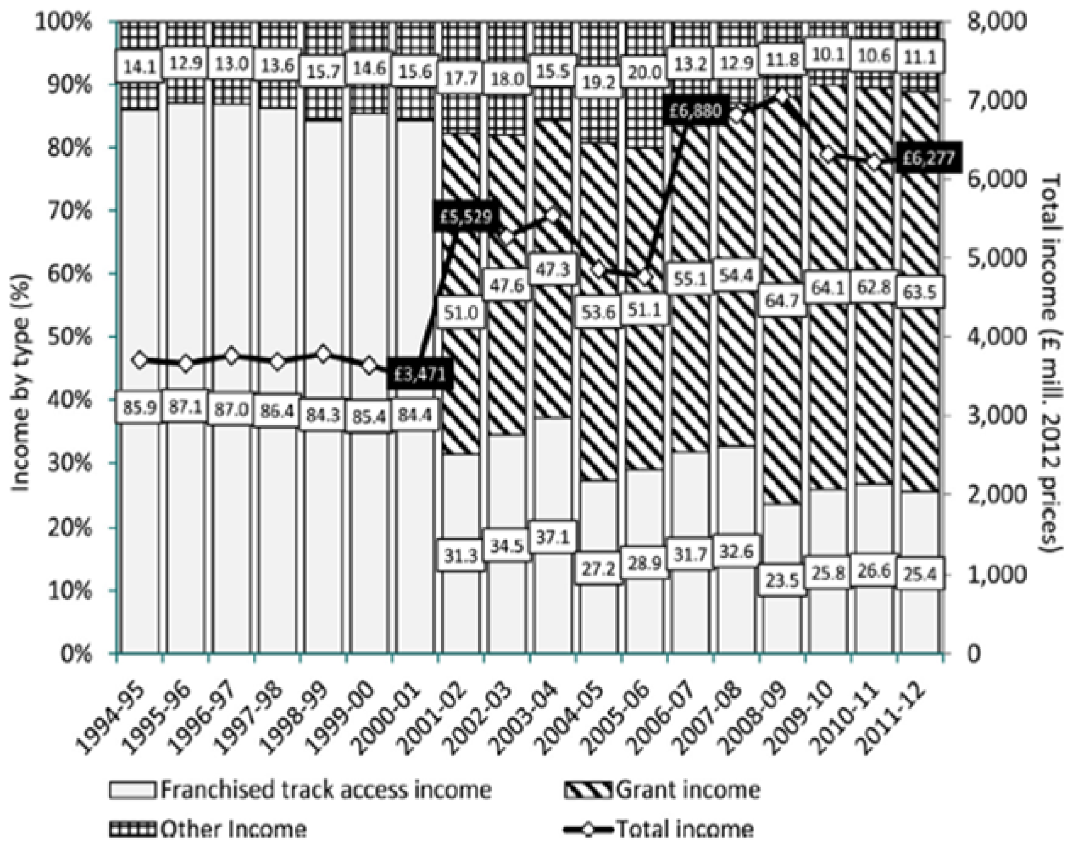
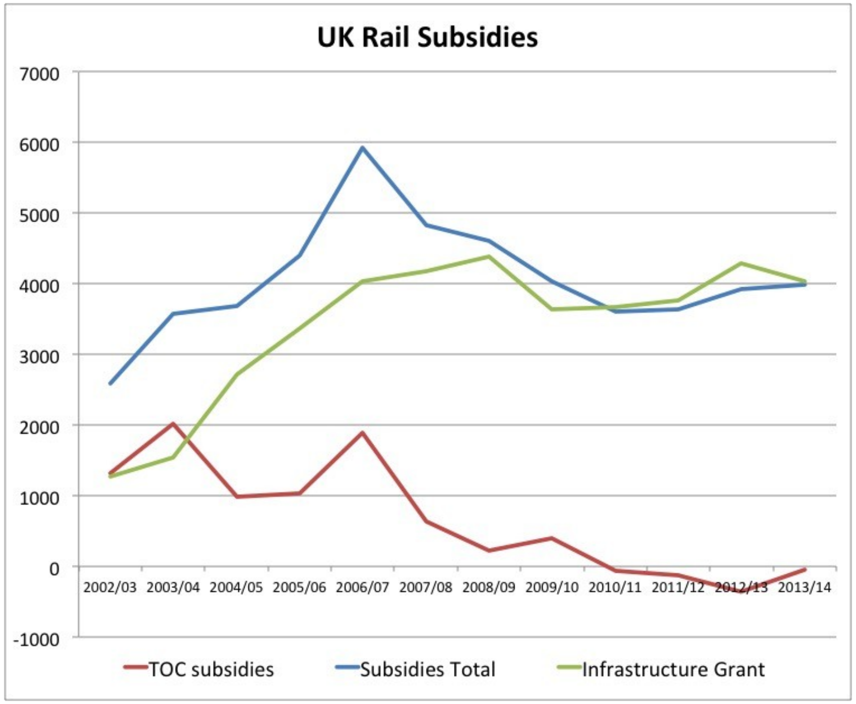


Fig. 2. *Railtrack and Network Rail share of income by type 1994–2012.* Source: Railtrack and Network Rail annual report and accounts, various years. Notes: Grants includes deferred grants and incentive adjustments.

Exercise: UK rail reform (again :-)



In the following graph you can observe the development of subsidies into British railway sector. How would you interpret it? One of crucial goals of British railway reform was to decrease rail subsidies. Was the reform successful in this respect?

9.6 Summary

Summary

- There is a balance between the issues of regulation and ownership
- The experiment with private ownership of rail infrastructure in Britain went wrong
- Subsidy plays a vital role in the operation of transport markets

Readings for Lecture 10

- Alexandersson, G., & Hultén, S. (2006). Predatory bidding in competitive tenders: A Swedish case study. *European Journal of Law and Economics*, *22*(1), 73-94.