

The Hong Kong Polytechnic University

Subject Description Form

Subject Code	LGT5161
Subject Title	Air Transport Regulatory Policy
Credit Value	3
Level	5
Normal Duration	1-semester
Pre-requisite	Nil
Objectives	Air transport markets have undergone fundamental changes in their regulatory environments in the last couple of decades and face major challenges today (and in the future). This subject explains general facts of the air transport industry, and how airport businesses have developed over time, why airlines may be exempted from antitrust regulations, while airports are often subject to heavy economic regulation, and how regulation shapes airline and airport businesses today. The purpose is to help the students to develop a profound understanding of the most important drivers of economic aviation regulation today, and to offer ways to successfully address the challenges arising from historic and current industry developments.
Intended Learning Outcomes	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none"> Develop an understanding of the challenges virus outbreaks and climate change poses to air transport and how to manage (or not manage) these challenges. Understand how public and private institutions govern national and international air transport markets. Understand why airlines and especially airports are subject to regulation until now. Critically assess current regulatory practice in the air transport industry.
Subject Synopsis/ Indicative Syllabus	<p>Biggest challenges to aviation</p> <ul style="list-style-type: none"> <u>Covid-19</u>: The air transport industry is among the industries that are hardest hit by the Covid-19 pandemic. This part discusses how governments, regulators and industries responded to this challenge and how regulation can help to better prepare for future virus outbreaks. <u>Climate change</u>: Although aviation contributes relatively little to greenhouse gas emissions compared to other industries today, it is expected that the contribution would substantially grow and reach critical future levels in the absence of decisive regulatory actions. Emissions Trading Schemes, other carbon offsetting and reduction schemes such as CORSIA, the electrification of the aircraft fleet and the role of Sustainable Aviation Fuels are discussed in this part.

	<p>Other airline- and airport-related topics (mostly airports)</p> <ul style="list-style-type: none"> • <u>Airline alliances & mergers:</u> Antitrust regulations should protect customers from excessive pricing by companies. But, airlines are often exempted from antitrust regulations because collaborative price setting can reduce airline ticket prices. This part discusses empirical evidence on this issue and the effects of collaboration on ticket prices for transfer and non-stop passengers. • <u>Airports as natural monopolies:</u> Here students will be provided with a data set and some econometric methods to analyze airport cost structures. This helps to understand why airports are often considered as “natural monopolies.” • <u>Airport competition:</u> Although airports are often considered as natural monopolies, they compete amongst each other and other modes of transport in various dimensions. This part covers the competition between neighboring airports, competition for transfer passengers, and the role of the evolving airline businesses and high-speed rail services for airport market power. • <u>Airport concession businesses:</u> Many airports earn a large share of their revenues from the supply of services that are not primarily related to airport infrastructure (so called concession services). The implications for the optimal pricing of airport infrastructure and the potential need for the regulation of airport infrastructure charges is a major theme of this part. • <u>Airport privatization and regulation:</u> Whereas airports are often owned and operated by government agencies nowadays private involvement in airport ownership in operation has substantially increased. Private involvement often comes together with some form of airport infrastructure charges regulation. The benefits and drawbacks of different forms of regulation are discussed in detail in this class. Regulation forms discussed in class include cost-based regulation, price-cap regulation • <u>Airport congestion and slots:</u> Air traffic growth often leads to shortages in infrastructure supply and increased airline delays. This part discusses the use of airline permits for airport infrastructure use (slots) for the management of airline delays. 																																						
<p>Teaching/Learning Methodology</p>	<p>A combination of lectures, guest talks by industry experts, real case studies and students-directed learning activities will be included in this subject.</p>																																						
<p>Assessment Methods in Alignment with Intended Learning Outcomes</p>	<table border="1"> <thead> <tr> <th rowspan="2">Specific assessment methods/tasks</th> <th rowspan="2">% weighting</th> <th colspan="6">Intended subject learning outcomes to be assessed (Please tick as appropriate)</th> </tr> <tr> <th>a</th> <th>b</th> <th>c</th> <th>d</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>Coursework</td> <td>35%</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>Examination</td> <td>65%</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>Total</td> <td>100 %</td> <td colspan="6"></td> </tr> </tbody> </table>	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)						a	b	c	d			Coursework	35%	✓	✓	✓	✓			Examination	65%	✓	✓	✓	✓			Total	100 %						
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	Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:	
Student Study Effort Expected	Class contact:	
	<ul style="list-style-type: none"> ▪ Lectures / Tutorials 	39 Hrs.
	<ul style="list-style-type: none"> ▪ 	
	Other student study effort:	
	<ul style="list-style-type: none"> ▪ Self study 	87 Hrs.
	Total student study effort	126 Hrs.
Reading List and References	<p>Czerny, A.I., forthcoming. Airport regulation. Encyclopedia of Transportation. Elsevier.</p> <p>Czerny, A.I., Guiomard, C. and Zhang, A., 2016. Single-till versus dual-till regulation of airports. Where do academics and regulators (dis)agree? <i>Journal of Transport Economics and Policy</i> 50, 350-368.</p> <p>Czerny, A. I., Fu, X., Lei, Z. and Oum, T. H., 2021. Post pandemic aviation market recovery: Experiences and lessons from China. <i>Journal of Air Transport Management</i> 90, 101971.</p> <p>Czerny, A.I. and Lang, H., forthcoming. Privatization and deregulation of the airline industry. Encyclopedia of Transportation. Elsevier.</p> <p>Maertens, S., Grimme, W., Scheelhaase, J. and Jung, M., 2019. Options to continue the EU ETS for aviation in a CORSIA-world. <i>Sustainability</i> 11, 5703.</p> <p>McKinsey, 2020. Clean skies for tomorrow. Sustainable aviation fuels as a pathway to net-zero aviation. Insight Report.</p> <p>OAG, 2018. Battle for the Bay. Competitive pressures for airports around the Pearl River.</p> <p>Thelle, M. H. and la Cour Sonne, M., 2018. Airport competition in Europe. <i>Journal of Air Transport Management</i> 67, 232-240.</p> <p>Wiltshire, J., 2018. Airport competition: Reality or myth? <i>Journal of Air Transport Management</i> 67, 241-248.</p>	