



Wits University Graduate School of
Public and Development Management

PADM5080

Costing & Pricing

A core course of the Wits P&DM
Master of Management in ICT Policy and Regulation

13 – 17 October 2009

Convenor: Robert Lipschitz

		LINK CENTRE	Learning Information Networking Knowledge
			Wits University Graduate School of Public and Development Management

CONTENTS

1 Content overview

This core course examines the regulation of pricing the telecommunications sector. Issues covered include: economic efficiency concepts relating to prices and costs; competitive and monopoly markets; price benchmarking; price cap; rate of return; cost accounting in telecommunications: separation of accounts, cost of services: LRIC, FLIC, FDC; CoA / CAM; market definition and market power; interconnection costs: fixed line and mobile call termination; ex-post price regulation: margin squeeze and excessive prices.

Date	Session	Time	Topic	Presenter
Tues 13 October	1	09:00 – 12:00	Fundamentals of price regulation	Robert Lipschitz, Genesis Analytics
	2	13:30 – 16:30	Instruments of price regulation 1: Price cap and rate of return	Robert Lipschitz, Genesis Analytics
Wed 14 October	3	09:00 – 12:00	Instruments for regulating price 2: cost accounting	Izaak Coetzee, pre-PhD, Telkom
	4	13:30 – 16:30	Price Regulation in South Africa: Historical overview and benchmarking	Charley Lewis
Thurs 15 October	5	09:00 – 12:00	Price Regulation in South Africa under the ECA	Robert Lipschitz, Genesis Analytics
	6	13:30 – 16:30	Case Study: Regulating Margin Squeeze	Ryan Hawthorne, Competition Commission
Fri 16 October	7	09:00 – 12:00	Case study: Regulating Interconnection prices in Namibia	Dr. Christoph Stork, Research ICT Africa
		13:30 – 16:30	Simulation Exercise: Price Cap Regulation	Charley Lewis
Sat 17 October		09:00 – 12:00	Exam	Charley Lewis / Michelle Roseborough

3 Course Outcomes

On completion of this course, participants will be able to:

- Articulate the key concepts related to costing and pricing, including economic efficiency concepts
- Assess the implications of different price regulatory instruments
- Articulate the rationales, principles and application of cost accounting models
- Critically analyse a range of models for the regulation of tariffs and prices
- Identify and assess different cost concepts
- Discuss market definition in South Africa and EU
- Understand the issue of margin squeeze

- Discuss the core arguments and issues in interconnection regulation

4 Core Readings

The following readings are recommended for the course. All are available in electronic format:

- Intven, H, Oliver, J & Sepúlveda, E (2000) 'Appendix B – The Economics of Telecommunications Prices and Cost' and 'Price Regulation', in Intven, H (ed) (2000) *Telecommunications Regulation Handbook*, World Bank, Washington DC, available online at <http://www.infodev.org/en/Publication.22.html>
- InfoDev (2007) 'ICT Regulation Toolkit Module 2: Competition, Interconnection and Price Regulation, Executive Summary', prepared by NERA Economic Consulting, InfoDev, Washington, available online at <http://www.ictregulationtoolkit.org//en/SectionPDF.1560.html>
- Cave, M, Majumdar, S & Vogelsang, I, *Handbook Of Telecommunications Economics, Volume 1: Structure, Regulation and Competition*, Elsevier Books, Amsterdam (available in the Library)

5 Required Readings

One or more readings are **required** to be completed for each session. A number of these are distributed by e-mail from several weeks in advance of the course. They are usually sent out in APA referencing format, and you are required to locate each via a search engine (such as Google or Google Scholar) or on the university's database of journals, print and read them (they will not be reprinted for the course pack).

Other readings are printed out and included in your course pack. You are expected to complete those readings required for each session **in advance**, as the lecture will assume familiarity with their content.

Lecturers / facilitators who use teaching aids or provide additional material, will distribute these notes to you as they become available. These notes should be added to your course file and included as part of your course materials.

6 Additional Resources

An electronic library of course notes and additional reference material relevant to this course is made available via the Wits Ignite web site at <http://ignite.wits.ac.za>. You will be given a logon ID and password to allow you to access this material, which is loaded under the folder 'PADM5080 Costing and Pricing'. You are strongly encouraged to make extensive use of resources and features of this course web site.

You may also be required to contribute to online discussions or to complete assignments and other forms of assessment via this web site.

Note that many of these readings are presented in Acrobat Reader format, which will require you to have Acrobat Reader installed on your computer.

7 Preparation Requirements

Your preparation work – mainly reading - should be done individually before you come on the course. Please note that there may be tasks to prepare for specific sessions. These will assist you to work through the conceptual and theoretical understandings in each of the readings and begin to apply these to cases and issues. Read through each session outline carefully to ensure that there are no mishaps.

We assume that for every 1 hour that you spend in the classroom, 24 in total, you will need to spend approximately 4 additional hours in preparation. This includes reading, writing assignments and examinations. You should therefore budget a total of 120 hours of your time in order to achieve the course outcomes.

8 Syndicates and Group Learning

An interactive and intensive learning methodology is utilised, which involves a combination of lectures, case studies, group and individual projects. Given that many participants are active in shaping the telecommunications sector, the P&DM endorses the “syndicate method” of teaching, which requires that some of the learning will be done in groups. This approach is designed to enable course participants to contribute to the course, bringing in their own practical experience, knowledge and expertise together with those of their peers to create a rich learning environment.

Each participant will be assigned to a syndicate group. Syndicates and group work are a vital component of the learning process and attendance at all syndicate meetings is required and compulsory.

Syndicate meetings will be organised by the group members at a time and place suitable to them in accordance with the programme’s schedule. Although the P&DM will make syndicate meeting rooms available, these meetings need not be held on campus. Syndicate meetings and interactions may also take place virtually, through the course WebCT site and via the mailing lists which will be made available for this purpose.

Problems within syndicate groups are to be reported timeously to the Academic Convenor of this course, so that steps may be taken to resolve them. Syndicates will only be able to change their syndicate group composition under exceptional circumstances, and at the sole discretion of the Academic Convenor.

9 Course Assessment

There are several components to the assessment for this course, viz:

- individual participation in online discussion - 5%
- individual (online) quizzes - 5%
- group assignment - 20%
- individual examination - 70%

You are required to contribute to the online discussion at <http://ignite.wits.ac.za> before the course commences, and your contribution will be assessed.

You will also be assessed by means of a short quiz, possibly online, designed to test your grasp of key concepts from the preparatory readings.

The group assignment, which is done in syndicate groups during the week, takes the form of a simulation exercise, and will count 20% towards your final mark for the course.

Your course convenor will give you full details of the individual examination during the week.


9 Information on Content Sessions

Session 1: Fundamentals of Price Regulation	
Presenter	Robert Lipschitz, Genesis Analytics
Outcomes	Participants will be able to: <ul style="list-style-type: none"> • Articulate and analyse the rationale for price regulation in ICT markets using economic theory
Content	<ul style="list-style-type: none"> • Market failure, dead weight loss and economic concepts of efficiency • Regulatory trade-offs under information asymmetry • Objectives of retail regulation versus wholesale regulation
Core Readings	<ul style="list-style-type: none"> • Laffont, J (2003) 'Overview of Regulatory Issues', in <i>Regulation and Development</i>, Cambridge University Press • Crampes, C & Estache, A (1997) 'Regulatory trade-offs in the design of concession contracts', Paper no 97.462, GREMAQ, Univeristy of Toulouse, available online at http://rru.worldbank.org/Documents/Toolkits/Highways/pdf/98.pdf
Additional References	<ul style="list-style-type: none"> • Wellenius, B (2000) 'Extending Telecommunications beyond the Market: Toward universal service in competitive environments', Public Policy for the Private Sector, Note No 206, World Bank, Washington, available online at http://rru.worldbank.org/documents/publicpolicyjournal/206welle.pdf
About your lecturer	<p>Robert Lipschitz is a competition and regulation economist for Genesis Analytics. He is one of the country's foremost experts in the telecommunications industry and its regulation. Robert has played a central role in advising both regulators and companies in the more important communications competition cases and regulatory initiatives in recent years with clients that include MTN, the Competition Commission and the Independent Communications Authority of South Africa. His competition work has also involved advising clients on complex prohibited practice issues in South Africa, including vertical competition concerns. He holds the degree of Master of Science in Economics from the University of London.</p> 

Session 2: Instruments of price regulation 1: price cap and rate of return	
Presenter	Robert Lipschitz, Genesis Analytics
Outcomes	Participants will be able to: <ul style="list-style-type: none"> • Critically assess the advantages and disadvantages in rate of return versus price cap regulation
Content	<ul style="list-style-type: none"> • Overview of price regulation instruments • Price cap regulation • Rate of return regulation • Ramsey pricing • Efficient component pricing
Core Readings	<ul style="list-style-type: none"> • Intven, H, Oliver, J & Sepúlveda, E (2000) 'Price Regulation', in Telecommunications Regulation Handbook, Intven, H (ed), World Bank, Washington DC, available online at http://rru.worldbank.org/Documents/Toolkits/telecom_mod4.pdf • Armstrong, M (2002) 'The Theory of Access Pricing and Interconnection', in Cave, M, Majumdar, S & Vogelsang, I, <i>Handbook Of Telecommunications Economics, Volume 1: Structure, Regulation and Competition</i>, Elsevier Books, Amsterdam
Additional References	<ul style="list-style-type: none"> • Hodge, J (nd) 'Administered Prices: Telecommunications - A report for National Treasury', Republic of South Africa, Pretoria • Sappington, D (2002) 'Price Regulation', in Cave, M, Majumdar, S & Vogelsang, I, <i>Handbook Of Telecommunications Economics, Volume 1: Structure, Regulation and Competition</i>, Elsevier Books, Amsterdam
About your lecturer	See above.

Session 3: Telecommunications Cost Concepts & Cost Accounting	
Presenter	Izaak Coetzee
Outcomes	<p>Participants will be able to:</p> <ul style="list-style-type: none"> • Apply the key concepts of costs of services; • Assess the implications of applying cost accounting for telecommunications regulation.
Content	<ul style="list-style-type: none"> • Cost accounting concepts and principles • Cost characteristics of networks and communications service applications
Core Readings	<ul style="list-style-type: none"> • Melody, W (1997) 'Network Cost Analysis: Concepts and Methods', in Melody, W (ed) <i>Telecom Reform: Principles, Policies and Regulatory Practices</i>, Den Private Ingeniørfond, Technical University of Denmark, Lyngby, available online at http://lirne.net/2003/resources/tr/chapter17.pdf • Jamison, M (nd) 'The Role of Costing as a Ratemaking Tool in an Environment of Dynamic Change', Public Utility Research Center, University of Florida, available online at http://www.cba.ufl.edu/purc/purcdocs/papers/0003_Jamison_The_Role_of.pdf
Additional References	<ul style="list-style-type: none"> • Wheatly, J. (1999) "World Telecommunication Economics, IEE Series 41. • ODTR (2002) 'Mobile Accounting Separation and Costing Methodologies', Consultation Paper, Office of the Director of Telecommunications Regulation, Dublin, Ireland, available online at http://www.comreg.ie/_fileupload/publications/odtr0286.pdf
About your lecturer	<p>Izaak Coetzee is a prospective PhD fellow at the LINK Centre. He has 12 years experience in the telecommunications industry and his career spans positions at the Department of communications, ICASA and Telkom. He was instrumental in setting up the Economic and Policy Unit at ICASA (then called SATRA) at its inception. He has been extensively involved in matters relating to Interconnection, Facilities Leasing, Universal Service and Access Fund, Regulatory Accounting, Price Controls, Product Development, Carrie Pre-selection, Number Portability and Licence conversion. He holds an MBA as well as various post graduate certificates related to telecommunications and information policy.</p>

Session 4: Historical overview and benchmarking	
Presenter	Charley Lewis, LINK Centre
Outcomes	Participants will be able to: <ul style="list-style-type: none"> • Assess price regulation in South Africa prior to the ECA • Discuss the methodology of international comparison of telecommunications prices
Content	<ul style="list-style-type: none"> • Assess South Africa price regulation prior to the implementation of ECA; • Price performance studies using benchmarking • Methodology of benchmarking
Core Readings	<ul style="list-style-type: none"> • Genesis Analytics (2007) 'South African telecommunications prices – An updated international price comparison, with regulatory recommendations', Occasional paper no 3, prepared for Business Leadership South Africa, Genesis Analytics, Johannesburg, available online at http://www.businessleadership.org.za/documents/BLSA%20OP%203%20Telcom%20Prices-20071126.pdf • Melody, W (2002), 'Assessing Telkom's 2003 Price Increase Proposal: Price Cap Regulation as a Test of Progress in South African Telecom Reform, and E-economy Development', LINK Centre Policy Research Paper No 2, University of the Witwatersrand, Johannesburg, available online at http://link.wits.ac.za/papers/wm20021130.pdf • OECD (2006) 'Revised OECD Price Benchmarking Baskets 2006', Organisation for Economic Co-operation and Development, Paris, available online at http://www.oecd.org/dataoecd/56/23/41049579.pdf • Thornton, L & Hodge, J (2006) 'Telecommunications Pricing Regulation', in Thornton, L, Carrim, Y, Mtshaulana, P & Reburn, P (2006) Telecommunications Law in South Africa, IDRC, Ottawa & STE Publishers, Johannesburg, available online at http://link.wits.ac.za/papers/telelaw9.pdf


<p>Additional References</p>	<ul style="list-style-type: none"> • Genesis Analytics (2005) 'Telecommunications prices in South Africa: An international peer group comparison', Occasional Paper No 1/2005, South Africa Foundation, Johannesburg, available online at http://www.tips.afrihost.com/research/papers/pdfs/satpp-telecom.pdf • Gillwald, A & Esselaar, S (2007) 'South African 2007 ICT Sector Performance Review', LINK Centre, University of the Witwatersrand, Johannesburg, available online at http://link.wits.ac.za/papers/TSPR2007.pdf • ICASA (2004) '2004 Price Control Review Draft Consultation Document', Notice No 26977, Independent Communications Authority of South Africa, Sandton • ICASA (2005) 'Discussion Document: Mobile Prices', Notice No 1200 of 2005, Government Gazette No 27814, Independent Communications Authority of South Africa, Sandton, available online at http://www.icasa.org.za/manager/clientfiles/Articles/Mobile_Pricing_180705.pdf • Smit, D, Neilson, B & Roetter, M (2008) 'International peer benchmarking study on the cost to communicate in South Africa', Vols 1 & 2, November 2008, Department of Communications, Pretoria
<p>About Your Lecturer</p>	<p>Charley Lewis is a senior lecturer, researcher and consultant at the LINK Centre of the School of Public and Development Management at the University of the Witwatersrand. His areas of interest include: labour, work and ICT; ICT sector policy and regulation; universal service and access; the Internet, and business process outsourcing. He has lectured and presented widely, on a number of ICT policy, regulation and development issues. He has undertaken research in a number of areas, including the Internet, call centres, e-learning and universal access and service. He holds the degree of Master of Commerce in the Management of Information Systems from the University of the Witwatersrand.</p> 

Session 5: Justifying the implementation of price regulation: the Electronic Communications Act (ECA) and ICASA	
Presenter	Robert Lipschitz, Genesis Analytics
Outcomes	<p>Participants will be able to:</p> <ul style="list-style-type: none"> • Elucidate the current approach to price regulation as established by the Electronic Communications Act • Apply market definition principles to telecommunication markets
Content	<ul style="list-style-type: none"> • Market definition; SSNIP test; supply-side substitution; geographic market; national pricing policy; switching costs; impact of different platform technologies • Significant market power and effectiveness of competition • Selecting remedies and justifying intervention • Discuss market definition in South Africa and EU
Core Readings	<ul style="list-style-type: none"> • RSA (2005) <i>Electronic Communications Act, No 36 of 2005</i>, Republic of South Africa, Pretoria, (Section 67), available online at http://www.icasa.org.za/Manager/ClientFiles/Documents/EComsAct_2005_No_36.pdf • OFT (2004) 'Market Definition: understanding competition law', Office of Fair Trading, London, available online at http://www.offt.gov.uk/shared_offt/business_leaflets/ca98_guidelines/offt403.pdf • ICASA (2007) 'ICASA Regulations Pursuant to section 67(4) of the electronic Communications Act No 36 of 2005', General Notice 1809 of 2007', Government Gazette No 30622, Independent Communications Authority of South Africa, Johannesburg, available online at http://www.info.gov.za/view/DownloadFileAction?id=76282. • EC (2002) 'Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services', Official Journal of the European Communities, European Commission, Brussels, available online at http://www.ictregulationtoolkit.org/en/Document.2615.pdf • EC (2003) 'Commission recommendation of 11 February 2003 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services', Official Journal of the European Union, European Commission, Brussels, (focus on the list fo markets) available online at http://ec.europa.eu/information_society/topics/telecoms/regulatory/publicconsult/documents/relevant_markets/l_11420030508en0045004_9.pdf

<p>Additional References</p>	<ul style="list-style-type: none"> • Cave, M, Stumpf, U & Valletti, T (2006) 'A Review of certain markets included in the Commission's Recommendation on Relevant Markets subject to ex ante Regulation', European Union, Brussels, available online at http://ec.europa.eu/information_society/policy/ecomm/doc/info_centre/studies_ext_consult/review_experts/review_regulation.pdf • Gual, J (2003) 'Market definition in the telecoms industry', IESE Business School, University of Navarra, Barcelona, available online at http://www.iese.edu/research/pdfs/DI-0517-E.pdf. • ICASA Regulation Pursuant to Section 67(4)(a) of the Electronic Communications Act No.36 of 2005, Notice 335 of 2008, Government Gazette, 6 March 2008 • Additional information on the European Commission's recent reforms to regulation is available at http://ec.europa.eu/information_society/policy/ecomm/tomorrow/index_en.htm. See especially "Factsheet 9: From 18 to 7 regulated markets" downloadable at http://ec.europa.eu/information_society/newsroom/cf/itemlongdetail.cfm?item_id=3701
<p>About Your Lecturer</p>	<p>See above.</p>

Session 6: Regulating margin squeeze	
Presenter	Ryan Hawthorne, Competition Commission
Outcomes	<p>Participants will be able to:</p> <ul style="list-style-type: none"> • Assess where margin squeezes by telecommunications operators are a problem • Assess how margin squeezes are evaluated by regulatory authorities
Content	<ul style="list-style-type: none"> • What is margin squeeze? • In what instances is margin squeeze a problem? • Measuring a margin squeeze • Approaches to margin squeezes in the US and EU • The roles of the Competition Commission and ICASA: ex-post vx ex-ante • Excessive pricing, price discrimination and predatory pricing in margin squeeze cases
Core Readings	<ul style="list-style-type: none"> • O'Donoghue, R & Padilla, A (2006) 'Margin Squeeze', in O'Donoghue, R & Padilla, A (2006) <i>The Law and Economics of Article 82 EC</i>, Hart Publishing, Oxford • EU (2007) 'Antitrust: commission decision against Telefónica-frequently asked questions', European Union, Brussels, available online at http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/274&format=HTML&aged=0&language=EN&guiLanguage=en • Supreme Court of the US (2008) 'Pacific Bell Telephone Co., DBA AT&T California et al v. Linkline Communications, Inc. et al', Supreme Court of the United States, Washington, available online at http://www.supremecourtus.gov/opinions/08pdf/07-512.pdf • Competition Tribunal (2006) 'Competition Commission of South Africa v Senwes Limited, Case No 110/CR/Dec06, Reasons for Decision', Competition Tribunal, Johannesburg, available online at http://lawviatheinternet.org/za/cases/ZACT/2009/8.rtf. (Market definition (pp 13 - 21), Margin squeeze (pp 30 - 40), & Effects (pp 55 - 74). • Ngxiza, S (2008) 'The Regulatory Environment and its Impact on the Nature and Level of Economic Growth and Development in South Africa,' Conference 2008, Development Policy Research Unit, University of Cape Town, Cape Town, available online at at http://www.dpru.uct.ac.za/Conference2008/Conference2008_Papers/Municipal%20Regulation%20paperSonwabile_Ngxiza.pdf

<p>Additional References</p>	<ul style="list-style-type: none"> • Sidak, J (2008) 'Abolishing the price squeeze as a theory of antitrust liability', 4 <i>Journal of Competition Law and Economics</i> • Geradin, D & O'Donoghue, R (2004) "The concurrent application of competition law and regulation: the case of margin squeeze abuses in the telecommunications sector", paper prepared for <i>Margin Squeeze under EC Competition Law with a Special Focus on the Telecommunications Sector conference</i> organized by the Global Competition Law Centre (GCLC) in cooperation with British Telecom plc, BT Centre, London, 10 December 2004 • EC decision in <i>Deutsche Telekom</i>, Case T-271/03, Deutsche Telekom AG v. Commission (not yet reported) (judgment of Apr. 10 2008). • Carlton, D., 2008, 'Should "price squeeze" be a recognized form of anti-competitive conduct?', 4 <i>Journal of Competition Law and Economics</i> 271. • Baumol, W., & Sidak, J., 1995a, 'The pricing of inputs sold to competitors', <i>Yale Journal on Regulation</i>, no. 11, from p. 171. • Tye, W., 1994, 'The price of inputs sold to competitors: A response', <i>Yale Journal on Regulation</i>, no. 11, from p. 203. • Baumol, W., & Sidak, J., 1995b, 'The pricing of inputs sold to competitors: rejoinder and epilogue', <i>Yale Journal on Regulation</i> no. 12, from p. 177. • Polo, M., 2007, 'Price squeeze: lessons from the Telecom Italia case', <i>Journal of Competition Law and Economics</i>, 3(3), 453 - 470 • US 1st circuit court decision in <i>Town of Concord, Massachusetts, et al, v. Boston Edison Company</i>, 915 F.2d 17 (1st Cir. 1990).
<p>About Your Lecturer</p>	<p>Ryan Hawthorne is a principal analyst at the Competition Commission's policy and research division. Ryan presented a conference paper on margin squeeze at the 2008 UCT Development Policy Research Unit conference along with his colleague Kate Morris.</p>

Session 7: Price regulation of interconnection: a case study of Namibia	
Presenter	Dr. Christoph Stork, Research ICT Africa
Outcomes	Participants will be able to: <ul style="list-style-type: none"> • Discuss the core arguments and issues in interconnection regulation • Articulate the key issues in the Namibian case study
Content	<ul style="list-style-type: none"> • Need for interconnection regulation; impact on competition and retail prices • International best practice and counter-arguments • Symmetric versus asymmetric rates; • LRIC v others • [Christoph to add/amend]
Core Readings	<ul style="list-style-type: none"> • RIA (2009) 'Namibian Interconnection Benchmarking Study', Research ICT Africa, Johannesburg, available at http://www.ncc.org.na/admin/data/Publications/Namibia%20Interconnection%20Study.pdf.
Additional References	
About Your Lecturer	<div style="display: flex; align-items: flex-start;">  <div> <p>Christoph Stork is a senior researcher with Research ICT Africa and Associate Director of the research programme Financial Economics and ICT at the Namibian Economic Policy Research Unit. He holds a PhD in financial economics from the London Metropolitan University, UK; a Diplom Kaufmann (MA) from the University of Paderborn, Germany, and a BA Economics from the Nottingham Trent University, UK. His main research interests are the economics of ICT, financial economics and private sector development. He also writes for Insight Magazine, a Namibian current affairs magazine on policy issues in information and communication technology.</p> </div> </div>

Session 8: Pricing Simulation	
Presenter	Charley Lewis, LINK Centre
Outcomes	Participants will be able to: <ul style="list-style-type: none"> • Apply the price cap model to the regulation of telecommunications prices in the context of a simulation scenario.
Content	<ul style="list-style-type: none"> • Analysis of financial statements and market dynamics within given regulatory scenario • Proposal of a rate regime
Core Readings	<ul style="list-style-type: none"> • Jamison, M (nd) 'Price Cap Simulation', Public Utility Research Center, University of Florida
Additional References	You may refer to any of the readings assigned for the course.
About your lecturer	See above.