

# Regulation, Contracts and Renegotiation in Infrastructure Industries

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# Overview

This presentation is concerned with two main issues:

- (i) The relationship between infrastructure industry contracts (i.e. concession contracts, licences, franchises and similar); and
- (ii) The role of regulation in providing an ordered procedure for positive-sum game renegotiation of infrastructure contracts

The material discussed covers: (a) lessons from economic history and (b) recent econometric studies

# Regulatory Contracts, Licences, and Other Legal Forms

- Regulatory contracts of all types contain legal conditions that set the terms under which regulated companies can provide service.
  - This includes UK licensed utilities, US regulated utility franchises as well as concession contracts for infrastructure industries and facilities (i.e. toll roads, canals, etc)
  - Applies to all commercialised utilities where private investment significant and some publicly owned utilities
- These contracts are typically long-term 20/25 year+ fixed duration or rolling contracts – and which may be potentially infinite in duration
  - Concession contracts differ in that the ownership of the asset always remains with the relevant national or local government and reverts to them at the end of the fixed term (but may be retendered).
  - In consequence, concession contracts have to contain material required on ownership and its termination
- Concession contracts can readily be combined with licences or similar and the regulatory content can be assigned to either or both (viz. Lesotho, Turkey, Uganda electricity & Belize water).

# Infrastructure Regulation: Public and Private Law I

- Contracts in commercialised infrastructure industries typically include major *public/administrative* as well as *private* law elements
  - For instance, the contents of network access and use agreements (TPA, interconnection agreements, etc)
  - Oil and gas production and supply contracts and PPAs.
- Conversely, regulation while primarily part of public/administrative law includes major elements of *private* law.
  - Regulators can impose particular conditions on specific companies e.g. inclusion of particular terms in customer contracts
- Regulation by public law allows the application of *general rules* unlike court based private contract based regulation
  - Private contract based regulation very difficult and costly when many parties involved – consumers and/or producers

[See Collins (1999)]

# Infrastructure Regulation: Public and Private Law II

Consequence of considerations above is:

- 1) Most transactions involving regulated infrastructure companies are carried out on the basis of *private* law and contracts
  - Which may well include regulatory requirements
- 2) Contracts with small customers and producer-network arrangements very likely to include regulator-set obligations; and
- 3) General requirements, standards, codes, etc typically approved, monitored and enforced by regulator under powers derived from general legislation.

This is essentially what we observe, embedded in various different legal forms, in US, UK, France and many other developed and developing countries.

# Contracts and Renegotiation

Provisions for renegotiation are a central feature of all long-run contracts

- (i) In long-run private contracts (e.g. business-to-business contracts), annual reviews on prices, quantities, quality, etc are the norm
  - Relational renegotiation discussions provide scope for inter-review updating
  - Many public procurement contracts involve similar regular reviews.
  
- (ii) For infrastructure contracts, periodic regulatory reviews are common – by regulator or concession contract monitoring agency or similar
  - Relational renegotiation rare (except in authoritarian, often high corruption states)
  - Periodic regulatory review of infrastructure contracts to allow renegotiation was C19 origin of infrastructure regulation

# Regulation for Contracts: C19 Railways I

- 1830-73 UK railways operated as private companies under franchises awarded by a private parliamentary act.
  - Franchises provided contract enforceable in standard court
- Model based on C18 arrangements for canals which had:
  - 21 year franchise (renewable with new act)
  - Toll rates fixed in nominal terms over period of act; and
  - Dividend payout limitation of 19% (i.e. a very crude finance control)
- For railways, 21 year franchise far too short to support investment
- Railways hugely profitable until late C19 because:
  - No effective competing speedy transport mode until post-1900
  - Rapid cost reduction up to 1860 with TFP growth of around 3.5% p.a. 1850-70, but falling to 1% p.a. 1870-1914 [Crafts et al (2005)]

# Regulation for Contracts: C19 Railways II

Absence of contract regulation and inability to refuse renewal of 21-year contracts led to the following problems:

- (i) Problems in establishing harmonisation of track gauge standards, signalling on interconnected lines, etc;
- (ii) No obligation to publish tariffs until 1870s led to enormous amount of price discrimination on freight use - each price offer was a separate private contract
  - by 1887, 13 million different rates on Great Northern Line and 20 million on London and North Western.
  - cost of rail freight Manchester to Liverpool greater than Liverpool to New York shipping cost
- (iii) Post-1850 virtually no competition from new entry -> growing cartelisation - especially when rail companies vertically integrated with canal and dock companies.

# Regulation for Contracts: C19 Railways III

***Fundamental problem was absence of mechanisms to review and realign costs and prices***

- No standard accounting requirements or information disclosure obligations => inability to compare costs within and between rail companies.
- Even when regulation arrived in 1870s, no information base was available to compare costs and prices and realign them
  - Price regulation under Railways and Canal Commission was always on company decisions to change prices with onus of proof on user until 1894, on rail company after 1894 – leading to ossification of rates from 1894 onwards
  - Commission only considered rates on individual lines not averages, indices or baskets of rates

# Consequences of C19 UK Railway Contract Revision and Regulatory Failure

- Result of UK failure to find way of reviewing and revising railway contracts was:
  - (a) high rail prices and profits and over-investment - until 1900;
  - (b) nominally fixed prices, with growing losses and serious under-investment and maintenance post-1900
  - (c) eventual nationalisation after 1945
- Similar problems affected UK town gas, electricity (apart from centralised and regulated high voltage grid post-1926) but to a lesser extent
  - Similar problems with French water concessions? – at least until Conseil d’Etat developed powers to modify water supply contracts. [Pezon (2005)]

# Historical Development of US Infrastructure Franchise Revision via Regulatory Review

US franchise contracts explicitly subject to renegotiation in light of changed circumstances since late C19.

- Price rise applications explicitly traded for service expansion/improvements
  - for railways at State level after 1870 [Kanazawa & Noll (1994)] and at Federal level after 1887
  - for town gas and electricity via supposedly independent municipal committee after 1900 [Troesken (1994), Newbery (1999)]
- Early (often exploitative) regulatory revisions codified at State level from 1920 and brought under Federal oversight from 1930s with growing legal underpinnings

***US regulatory system has many flaws – but, unlike UK and many other countries - its structured renegotiation approach has consistently allowed private sector financed universal service to develop while (largely) maintaining financial viability of infrastructure companies***

# Gains from Contract Renegotiation: Developed Countries

There are many examples of major gains from renegotiation including:

- 1) French contractor toll road 30 year contracts – 71 contracts of which 45 original and 26 successfully renegotiated [Athias & Saussier (2006)]
  - 46% considerable or full flexibility for price renegotiation
  - Higher uncertainty (e.g. traffic flows) had more flexible contracts
  - Longer contracts and repeat contracts had more flexibility
  - Stronger country regulatory quality increased flexibility of contracts
- 2) Atlanta Water Lease Contract Collapse 2003 [Spiller (2008)]
  - Absence of external regulatory/renegotiation mechanism led to contract collapse as result of 3<sup>rd</sup> party opportunism
  - Cost of termination \$40 million p.a
- 3) UK: Successful NATS PPP regulatory resetting, failure to renegotiate London Underground Metronet PPP ... and others and in many other countries

# Gains from Contract Renegotiation via Regulation: Developing Countries I

- There is a large – and strong - literature showing gains in infrastructure industry outcome performance from the prior existence of an independent regulator
- Recent papers also show greater gains the higher the quality of regulatory governance
  - This is true for telecoms – fixed and mobile, electricity generation, electricity generation, electricity distribution
  - Much less true for water and (non-freight) railways but both of these require regular subsidy support for financial viability
  - Results apply to concession contracts as well as full-scale privatisations
- Far from all regulatory agencies successful (nor do all contract renegotiations successfully salvage viable contracts and terminate non-viable ones).

BUT, what does this imply for role of regulators for infrastructure contract success?

# Gains from Contract Renegotiation via Regulation: Developing Countries II

Guasch, Laffont & Straub (2003/4) show that prior existence of regulator reduce probability of contract “renegotiation” for toll road and water concession contracts. But, what does this actually mean?

GLS define a renegotiation as follows:

“Renegotiation has occurred if a concession contract underwent a significant change or amendment not envisioned or driven by stated contingencies in any of the following areas: tariffs, investment plans and levels, exclusivity rights, guarantees, lump-sum payments or annual fees, coverage targets, service standards and concession periods. **Standard scheduled tariff adjustments and periodic tariff reviews are not considered renegotiations.**” (Guasch (2004), p.12.)

Why?

[Note that “regulator” in this case will include concession contract monitoring agency e.g, for toll roads]

# Gains from Contract Renegotiation via Regulation: Developing Countries III

GLS interpretation problematic because:

- (i) Contracts will vary in how much 'regulation' and contract modification is done under the terms of the contract and how much by the regulatory review.
  - Much more left with regulator in simple contract
  
- (ii) What is included in the contract and what left to the regulator will affect whether or not a significant contract change is classified as a 'renegotiation'
  - If simple contract leaving more to the regulator, the resulting changes probably will not be classified as a 'renegotiation'. For a contract which specifies reviews and modifications inside the contract, the same changes may well be classified as a 'renegotiation'.

# Contract Renegotiations and Regulation in Developing Countries: My Perspective

- 1) All long run contracts need revising and realigning at some stage because of ‘maladaptations’ which results in unhappiness of one or other participant – often threatening viability
  - Occurs throughout modern history – e.g. Suez Canal renegotiations in 1870s
- 2) Having an external entity to review and revise regulatory contracts is, in practice, much more successful than leaving it to private law and the courts
  - Usually some kind of within country regulatory entity but not always [See de Brux (2010) on very successful Cambodian airport renegotiation]
- 3) Difference between a realignment following a regulatory review and after a “special” review is minimal
  - Point of regulatory reviews is to achieve contract realignment in systematic and ordered way

# Concluding Comments

- I. Theory of infrastructure regulation emphasises “problem” of discretion (Levy & Spiller and others)
  - but in long run, regulation without (bounded and accountable) discretion impossible to sustain
  
- II. Theory of contracts emphasises “problem” of renegotiation in infrastructure contracts because of opportunities for opportunistic behaviour (hold-up theories as emphasised by many game theoretic papers)
  - but other game theory models emphasise learning and trust (Greif, Dassiou & Stern)
  - also many examples of successful non-opportunistic renegotiation
  
- III. If, as found consistently in history and recent econometric studies, regulation often brings major benefits on both infrastructure benefits and “fundamental” renegotiation rates, how and why does this occur?
  - Answer must lie in good quality regulatory action as eliminating mistrust and facilitating Pareto improving revision of contracts