

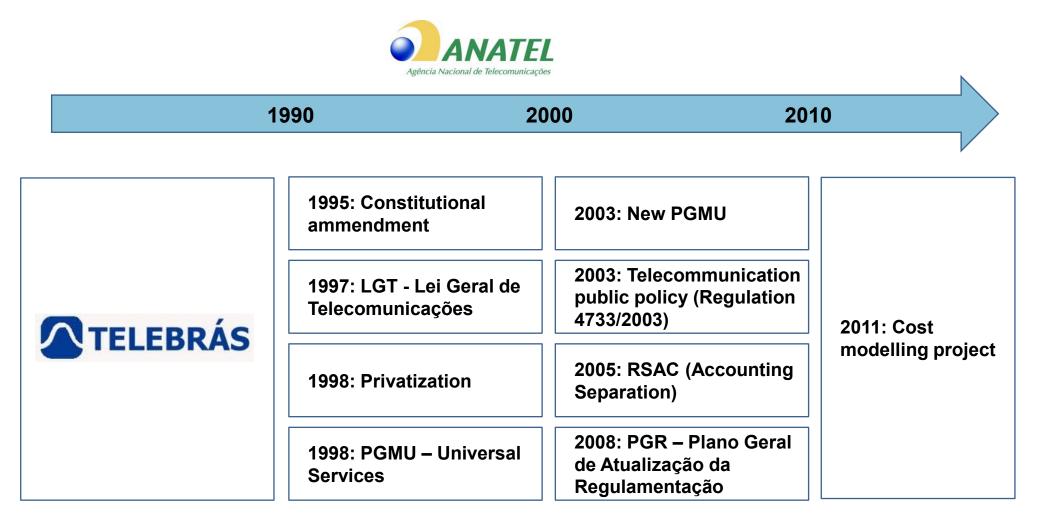
Regional Seminar on the economic and financial aspects of telecommunications Study Group 3 Regional Group for Latin America and Caribbean (SG3RG-LAC)

Project

"Cost modeling implementation"

Paraguay, March 14th, 2012







Public Regime

- Provided through concession or permission, in contracts between Brazilian government and operators
- Universalization and continuity obligations
- Tariffs and adjustments considered in contracts
- Includes fixed telecommunication services – STFC

Private Regime

- Provided through authorization
- No universalization nor continuity obligations
- No prices control.
- Prices defined by market forces



Retail - Price-cap

- Simpler method for tariffs regulation
- Based on historical prices and price index adjustments, considering efficiency factors
- Usually facilitates the process of tariff restructuring
- Can be applied for a basked of products / services or individual ones
- In Brazil, it will be applied in the STFC local and long distance services

Wholesale - Cost-based

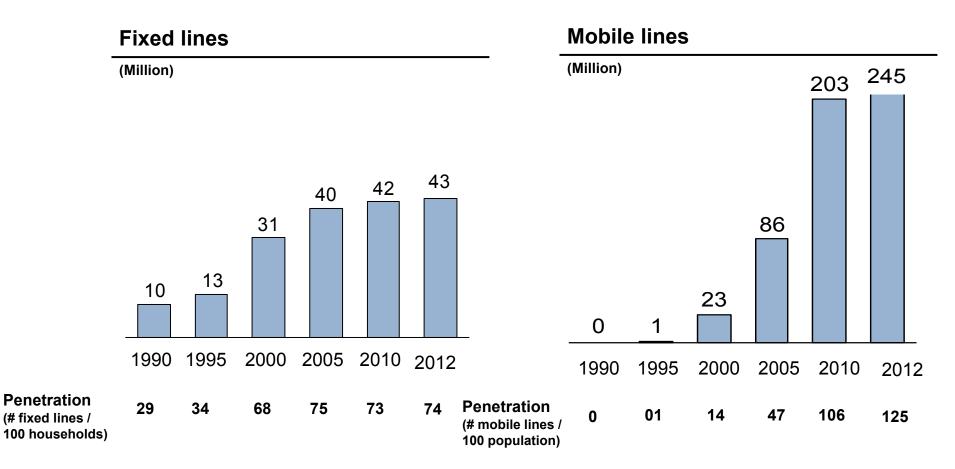
- Emulates efficient operator and market competition, considering price
 = marginal cost
- More complex than price-cap methodology
- In Brazil, it will be applied with emphasis to wholesale tariffs (e.g. interconnection rates and EILD)



Economic monitoring development since privatization

| Incentives | Although we have not constructed yet the Cost models (TD and BU), some regulations were published in order to show to the market that the most important things in Brazilian telecommunication sector are: the competition and the productive efficiency; The focus is not at the price control. |
|---------------------------|---|
| Regulation adjustments | Regulation adjustments that pointed to cost-oriented wholesale tariffs regulation; Retail minus in FTR regulation |
| Transitioning | Smooth transitioning to cost-oriented models, so that investment flows are not impaired; Recent regulation establishing VC's and MTR reduction, until the cost-oriented values to be published in two years. |





•The Brazilian market regulations were good. We can see an important increasing of lines sold and of penetration;

The Cost Model shall improve the market conditions;

Source: Anatel, IBGE, Teleco

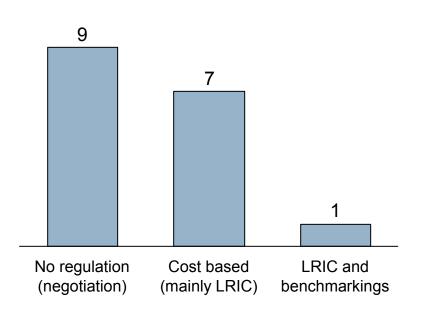


Telecommunication cost modeling examples

Examples of models used in Europe⁽¹⁾

| | Interconnection | Leased lines |
|-------------|-----------------|--------------|
| Austria | FL-HCA | HCA |
| Belgium | FL-CCA | HCA |
| Denmark | HCA | HCA |
| France | FL-CCA | FL-HCA |
| Germany | FL-CCA | HCA |
| Greece | FL-CCA | HCA |
| Ireland | FL-CCA | FL-HCA |
| Italy | FL-CCA | FL-HCA |
| Netherlands | FL-CCA | FL-HCA |
| Portugal | FL-CCA | HCA |
| Spain | CCA | CCA |

HCA: Historical Cost Accounting CCA: Current cost accounting FL-HCA: Forward-looking based on historical cost FL-CCA: Forward-looking based on current cost Methodology for tariffs regulation in Latin America ⁽²⁾

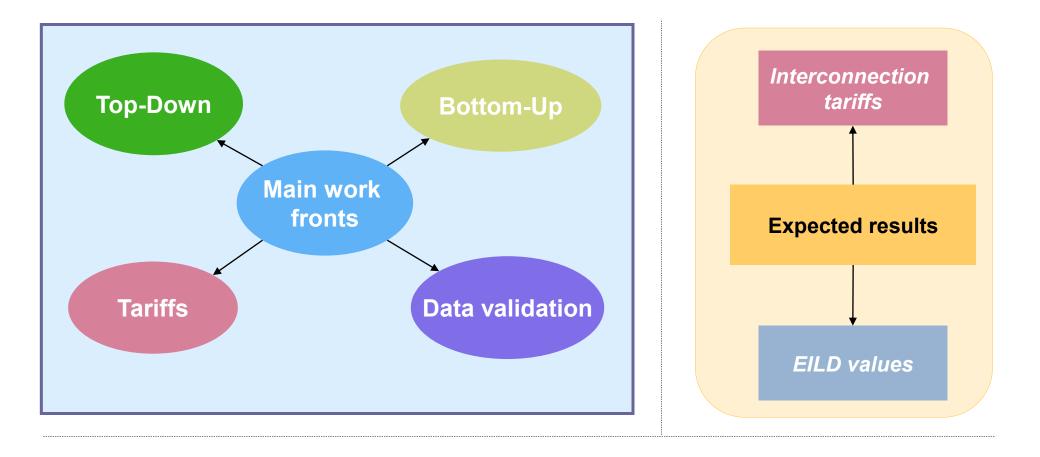


International experiences were considered by Anatel's team during the period of the ToR's discussion.

Source: (1) Study on the implementation of cost accounting methodologies and accounting separation by telecommunication operators with significant market power, Andersen 2002 (2) Mobile Termination Rates – to regulate or not To regulate? Discussion paper ITU – 2009



Anatel's main tasks

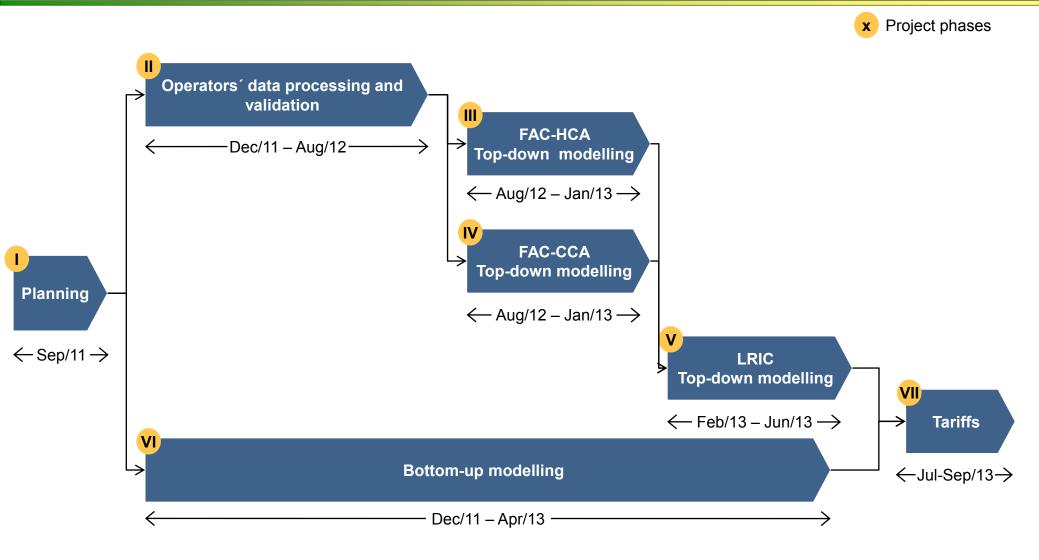




| | GRUPO | COMPOSIÇÃO (Resolução nº 101) |
|---|----------------|---|
| 1 | Telefonica | Telefônica (STFC); Vivo (SMP); Emergia (SCM), DTHi (DTH) |
| 2 | TELEMAR | Telemar Norte Leste (STFC); TNL PCS (SMP); Brasil Telecom (STFC); 14 BrT Celular (SMP); BrT Com Multimídia (SCM), Vant (SCM) |
| 3 | | Embratel (STFC); Claro (SMP); Vésper (STFC); |
| 4 | СТВС 🚄 | CTBC Telecom (STFC); CTBC Multimídia (SCM); Engeredes |
| 5 | Sercomtel | Sercomtel (STFC); Sercomtel Celular (SMP) |
| 6 | TIM | TIM Nordeste (SMP); TIM Celular (SMP), TIM (STFC) |

Cost modelling project in Brazil







International consortium















- Cost based modeling is a complex process, demanding a series of related activities and regulatory actions, including, specially, operators commitment;
- It is a powerful tool for regulators to adjust tariffs in order to implement telecommunications strategy and policy;
- Important decisions by Anatel (defined by regulations) will incorporate the results of the cost modeling process:
 - MTR: conflict composition among fixed and mobile operators
 - Network elements rental



Thank you

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