Deriving prices from Costs

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Deriving prices from Costs

Deriving Tariffs from Costs

Pape Gorgui TOURE
pape-gorgui.toure@itu.int

Tariff versus Cost

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- The Tariff is what the end-user should pay for a unit of a given service or product;
- The unit cost is what the service provider incurs to produce a unit of a given service or product

Problematic

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- tariffs are of the policy domain and may include considerations depending on the realities of a local market;
- the competition tends to push tariffs towards cost;
- in the international telecommunication market, the outgoing settlement rate can be a significant cost element;

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- The outgoing settlement rate is a tariff under the sovereign jurisdiction of the country of destination;
- it may include non-cost elements that the call originating operator may which to be allocated in a fair and transparent manner.

Costs that are accepted as such

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- fixed asset
- network operation and maintenance cost
- Business costs
- common costs
- cost of capital

Cost causation

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- there are costs which can be traceable to a given service (direct cost)
- there are costs which can be allocated to some services using different methods: it is expected that the cost allocation method be as objective as possible
- cost causation is is foundation of transparency

forward looking costs

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- the fixed asset costs are expected to be actual: reflecting the replacement cost of the infrastructure, in consideration of the new and efficient technologies;
- the adjustment to current costs must take into account the monetary erosion;
- there are operators who expect that the other costs be as close as possible to those that an efficient new entrant would incur;

Current Cost Adjustment

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$CCA=DEP*((1+t)^{D/2}/(1-e)^{D/2}-1)$

Where :

CCA=Current Cost Adjustment

DEP=Annual Depreciation

τ=Compound Annual Growth Rate of the cost of telecommunication equipments

ε=Compound Annual loss of local currency purchasing power

D=Depreciation/life time

inefficiency costs

- inappropriate excess capacity costs should be taken out when it comes to establish interconnection or incoming settlement rate;
- the growth rate of a network is a factor to be considered when evaluating inefficiency costs;

inefficiency

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$$K' = \mathbf{Max}(0 ; \Delta K - K_u * [(1+t)^N - 1])$$

où:

K ’ = the inefficient capacity;

ΔK = the unused capacity;

K_u = the capacity in use;

t = the compound annual growth rate of the capacity in use

N the time needed to add new capacity

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Regional Cost Models characteristics

The TAS Cost Model

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- lack of account separation
- no efficiency consideration
- refinement intended for cost causality

The TAL Cost Model

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- no information about spare capacity
- include USO as a basic cost element without explanation

The TAF Cost Model

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- fulfils the expectation
- practicability to be measured after practical implementation

Other Elements for tariffs determination

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- corporate tax
- USO fund
- Access deficit

Corporate tax

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- tax on operation profits
- financial profits are not subject to a corporate tax
- the total corporate tax is given by:

$$L_{benefits} = \frac{t_{levy}}{1 - t_{levy}} * r_{capital} * Capital$$

Universal Service Obligation

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A country may impose a levy on the revenues of an operator in order to fund the USO costs.

USO may be combined or not with Access deficit

Where applicable,

Where k_{Si} and T_i are the unit cost and the volume of service S_i

$$USO = r_{uso} * \left(L_{benefit} + \sum_{i=1}^{n} k_{si} * T_i \right)$$

Access deficit (1/3)

Access deficit arises when a regulation authority opposes the necessary increase of the components hereunder:

- connection fee
- monthly subscription fee
- price of a minute of urban call
- price of a minute of interurban call

Access deficit (2/3)

Before reallocating the access deficit, it must be taken care that only the local subscribers are paying the connection rate and the monthly subscription fees.

The tariff of outgoing communication should be reduced by:

$$\left(\Delta Parc * R_{conn} + msf * Nb_{subscr} * 12\right) * \frac{k_{si}}{\sum_{j=1}^{n'} T_j k_{sj}}$$

Access deficit (3/3)

The following relation gives a measure of the access deficit:

$$D = T_{urb} * \left(k'_{urb} - p_{urb} \right) + T_{interub} * \left(k'_{interub} - p_{interurb} \right)$$

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Tariffs rebalancing

Objectives of tariffs rebalancing

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- The access deficit reflects the cross subsidisation of domestic communications by international incoming and outgoing communications;
- the tariff are balanced when the access deficit become insignificant.

Rebalancing process

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- An example of process
- In the real life, tariff rebalancing should be a step by step goal setting process to support the pricing policy
- The TAF Model has implemented the rebalancing process (a special session could be organised if needed);
- END

Example of the process

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