fixed cost component of charges could be compared with those of a simple model that would use the formula: $c_1 + K_0/Q_1$ instead. It is not sufficiently clear from the paper [11] whether differences in the data or the method of allocating the fixed costs are driving the discrepancy between the Chilean regulator’s current distribution charge and the proposed charge. However, the fact that the proposed OFTEL Rule charge is higher than the current charge would conflict with a regulatory objective that access charges should encourage new suppliers rather than be generous to incumbents. The desirability of promoting competition in the long run may justify a short-term access charge subsidy to new entrants.

At a more general level, the usefulness of access pricing models is dependent on the wider regulatory framework within which it is adopted, and how the model is applied in practice.

(i) With regards to the regulatory framework, it is important that the essential data for access pricing is available. For example, the authors point out the lack of publicly available data on maximum demand. Availability of data on essential variables and the transparency of decision process to all interest parties involved increases the accuracy of results and enhances acceptability of the outcomes of incentive regulation of networks; in particular where these involve some form of benchmarking.

(ii) In addition, there is a need for clear definitions of costs and setting guidelines for allocation methodologies (e.g. what constitutes variable or fixed costs and how these may be used in pricing access for different types of customers based on energy and power usage). For example, the UK regulator found considerable variations in variable and fixed components of access charges calculated by the firms. The observed variations seem to have been influenced by differences in interpretation of the types of costs or adopted methodologies to simplify the access pricing procedures [22].

The extent to which regulators may adopt the proposed model or a variant of this in order to proactively set access charges is largely dependent on the degree to which regulators may want to control the structure of access charges. In non-interventionist access pricing models such as partial revenue cap regulation, firms are generally free, within the limits of their revenue caps, to structure and determine their access charges for different user groups. Here there is a need for monitoring and preventing incumbents from anti-competitive strategic behavior in access pricing by e.g. imposing higher charges on competitors in market segments where the incumbent has competitive advantage and visa versa [33].

In rate of return regulation or global revenue cap models, the regulator may wish to exert a degree of control over the structure and level of access charges for nonregulated customers. A strength of the model is that marginal investment and operation cost $c_1$ and fixed network cost $K_0$ can be obtained from best practice using model firms or other benchmarking methods thus reducing, to some extent, the incentive for strategic behavior on the part of firms. Regardless of the regulatory context, the proposed model or adaptations of it can provide a useful and applied analytical framework for monitoring the procedures for and progress of access pricing in liberalised electricity sectors.

Discussion of “Distribution Access Pricing: Application of the OFTEL Rule to a Yardstick Competition Scheme”

Juan Rivier

After reading your really interesting paper [11], some questions arise. I think models from the telecommunications world cannot be applied directly to the distribution business due to some important differences.

- In telecommunications, the situation is such that, having a company that has the monopoly of part of the network (usually what is called the last mile), there is a need to allow other entrants to use this network. The biggest difference is that, while in telecommunications the monopoly has to be able to compete with new entrants in the use of its own network, in distribution systems this should not happen. A distribution company owns the distribution networks as a regulated business, but does not compete in retail business. The distribution company may have to act as a retailer, but only with franchised customers, and this activity has to be regulated as strictly as the wire business. In most of the re-regulation processes around the world, retail to nonregulated customers is legally and economically unbundled from wire business for obvious reasons.

- This statement leads to the fact that in telecommunications, the Efficient Component Pricing Rule (ECPR) may be used. The objective of this rule is to allow the entry to the retail business only to those that really are more efficient than the monopoly. But, for doing so, the profit margin that had the monopoly is being included in the access charge. This is the opportunity cost, as this is what the monopoly would have earned if the new entrant would not have enter the retail business.

This is not acceptable in the regulated electric distribution business: the distribution company has to be paid in function of its costs, not in function of what it would have earned. The distribution company does not have to compete for nonregulated customers.

Anyhow, for distribution regulation and tariff determination, it is important to keep the principle of additivity of all the concepts. Any customer (franchised or not), will have to pay for every concept: these can be reduced to wire business, commercial service and energy (plus several other regulated services). The only difference between what pays a franchised customer or a liberalized one should refer only to liberalized concepts: that is, energy and commercial service. For the rest (regulated business: wire and other regulated services) both customers should pay exactly the same. In other words, if a customer choose to go out from the regulated tariff, then he will change the part referred to commercial costs and energy costs from a regulated price to a market price. But he will still have to pay exactly the same amount than he was paying as a franchised customer for all the other regulated costs (mostly wire business). This means that any customer, franchised or not, should pay the same amount for wire (plus other regulated costs) business.

The problem is therefore reduced to determine which part of the costs of the distribution company relates to wire business and which part belongs to commercial costs of the franchised customers. The methodology presented in the paper tries instead to calculate the opportunity cost, for what it needs the separation of both costs. I personally think that, once both costs are separated (maybe through

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strict accounting separation as it is proposed in the paper), then the problem to solve is how to assign the wire business cost between all the customers (there should not be any difference between franchised and eligible customers) in such a way that there is no discrimination between them.

By the way, if I have understood correctly what is presented in the paper [11], the proposition to evaluate the access charge tries to take into account the elasticity of each demand (even though this can not be calculated as it is stated in the paper). If this was so, the use of elasticity to determine tariff leads to discrimination between customers. This is usually feared by any regulator.

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Discussion of “Distribution Access Pricing: Application of the OFTEL Rule to a Yardstick Competition Scheme”

Pablo Giaconi

Congratulations to the authors of the above paper [1] for an important contribution to distribution regulatory schemes, integrating these two methods used in practice.

In most of the regulatory designs, the tariff calculation is cost based. This methodology seems to be fair and economically adequate. Nevertheless, the usage-based models are more efficient from the economic social point of view. The Ramsey-Boiteux solution is the socially optimal way to assign the mark-ups over the marginal cost of the different products of a firm, to allow its self financing. But, in practice, it is difficult to know the demand functions to obtain the needed elasticities. On the other hand, the OFTEL Rule is a feasible approach for a usage-based model.

I would like to contribute to this work with different approaches to some of the statements presented, and with a discussion of some assumptions.

I. DIFFERENT APPROACHES AND ASSUMPTION DISCUSSION OF THE RAMSEY-BOITEUX SOLUTION

The Ramsey-Boiteux solution, because is socially optimal, is the starting point for many usage-based models. That is why it is worth commenting on some issues about it.

In the paper, the Ramsey-Boiteux solution is developed. In spite of this, I know that the use of a theoretical subsidy $T_m$, to get this solution, is a method used in the literature; a different approach to get a different solution is a Lagrangean. As a personal opinion, I think that a Lagrangean is easier to understand the problem: the objective function is the social welfare and the restriction is the self financing of the firm [1, eq. (3)].

In the same problem, $q_i$ are used as optimization variables. However, I think that understanding $q_i$ as consequence of the demand functions $g_i(p_i)$ ($i = 1, 2, 3$), and not properly optimization variables, is a simpler way to see the problem. This is just a different approach to the same problem, because this demand function can be included as a restriction, and then variable $q_i$ will be included as a variable of the optimization problem, as is stated in [1] [paragraph following (5)].

In the Ramsey-Boiteux problem, the variable $p_1$ is not considered as an optimization variable, and it is said that it can be fixed in an exogenous way. First of all, if $q_1$ is an optimization variable, then $p_1$ is a result of the demand function $q_1(p_1)$, so it cannot be fixed in an exogenous way. On the other hand, if $p_1$ is set free by excluding $q_1$ as an optimization variable, $p_1$ cannot be fixed in an exogenous way, because it has to be an optimization variable to get the Ramsey-Boiteux solution; in other words, it must be derivable [in [1]—paragraph after (5) and second paragraph after (7)].

II. DISCUSSION OF THE PROPOSED MODEL ASSUMPTIONS

In the development of the model proposed, there are some assumptions that I would like to review.

I understand that the assumption made to get [1, eq. (11)] is that profits as a percentage are equivalent to, in that way, turn profits to incomes, [1, eq. (10) and (11)]. Apart from that, perhaps, the assumption could be explained more clearly; this assumption could be very particular. Profitability did not used to be the same for different products. But it is an assumption [in [1], paragraph after (10)].

Another assumption that I would like to discuss is the one that says that in the absence of economies of scale, medium costs are equal to marginal costs. Apart from that, I think that there are some economies of scale commonly accepted in distribution, and that even in the case of absence of economies of scale, the cost function should be a particular one: lineal without fixed costs, to get medium costs equal to marginal costs (in [1], third paragraph after Section III).

It is said that the monopolist could internally raise the value of $\pi_2$, lowering by the same amount the value of $\pi_1$. If the prices and quantities are already set, the only variable that the monopolist can use to raise $\pi_1$ is $c_1$. In that case, the variations of $\pi_1$ and $\pi_2$ are not equivalent, they do not vary exactly in the same amount, because of the existence of $\pi_3$, that also depends on $c_1$ [in [1], fourth paragraph after (9)].

III. SUGGESTIONS AND CORRECTIONS

In [1, eq. (10)], $q_1$ must be replaced by $q_2$, to make them consistent. In the OFTEL Rule, the access can be set using $\pi_2$ or even $\pi_3$, but not $\pi_1$. That is why $q_1$ must be replaced and not $\pi_2$.

In the same way, in [1, eq. (11)], $I_1$ should be replaced by $I_2$, to make them consistent with [1, eq. (10)].

Finally, in [1, eq. (12)], I suggest to change the letter $\eta$, previously used for elasticities, to another one.

I hope I have contributed to this important paper for the advancement and understanding of the regulatory schemes. Thanks to the authors.

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