

**Comments on  
"Take or Pay Contracts and Market  
Segmentation"  
by M. Polo and C. Scarpa**

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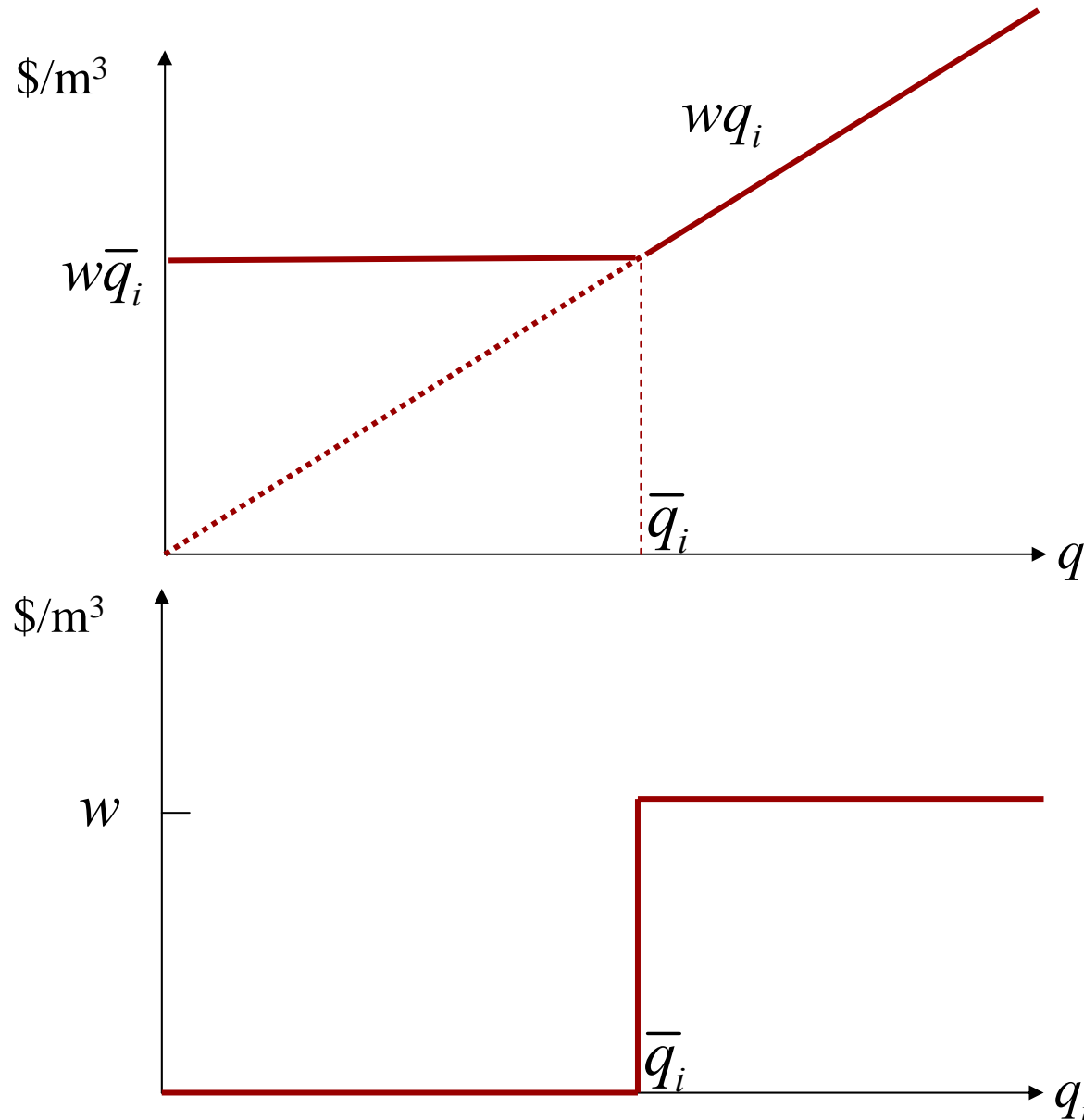
# EC's view on the gas market liberalization

- According to P&S:
  - the EC wrongly consider that Gas Release + TPA are necessary and sufficient conditions for gas liberalisation;
  - the EC does not sufficiently consider the bias from Take Or Pay obligations
  - competition could be enhanced with a centralized pool because it would prevent TOP holders (with zero marginal cost) from playing strategically on the retail market.
- P&S propose a duopoly model to show how TOP holders segment the retail market to extract monopoly rents, which would be impossible on a pool.

## on the technology

Questions:

- \* what if  $w$  is not the same for the incumbent and the entrant?
- \* same question in the pool framework.



## on demand

net utility of consumer located at  $v$  when buying

from firm with characteristic  $x_i$ :  $u^* - p_i - \psi(v - x_i)^2$

You write: "Since gas is commodity, we assume that product differentiation is very limited in scope, i.e.  $\psi$  is very low, with  $\psi = 0$  as the limit case of perfectly homogenous sales"

Remark: low differentiation rather means that  $(x_i - x_j)$  is small; a low  $\psi$  refers to weak 'transportation cost', consequently low switching cost.

Question: did you try to make  $x_i$  and  $x_j$  endogenous? What if  $(x_I, x_E)$  is  $(0,1)$  instead of  $(1/4, 3/4)$ ?

# on the timing

my understanding:

- \* entry: firm  $I$  visits each consumer, then  $E$  (maybe) visits each consumer (page 7);

- \* competition:  $I$  and  $E$  simultaneously announce  $(p_I, p_E)$ .

Questions:

- \* how do  $E$  and  $I$  know about the other's visit?

- \* what occurs during the visits? Is there any commitment?

- \* is  $E$  allowed to propose different prices to the consumers who have been visited by  $I$  and those not visited?

## on the two-market modeling

\* the former timing is first applied up to the TOP commitment of  $I$  (market 1), then to the residual demand (market 2)

Remark:

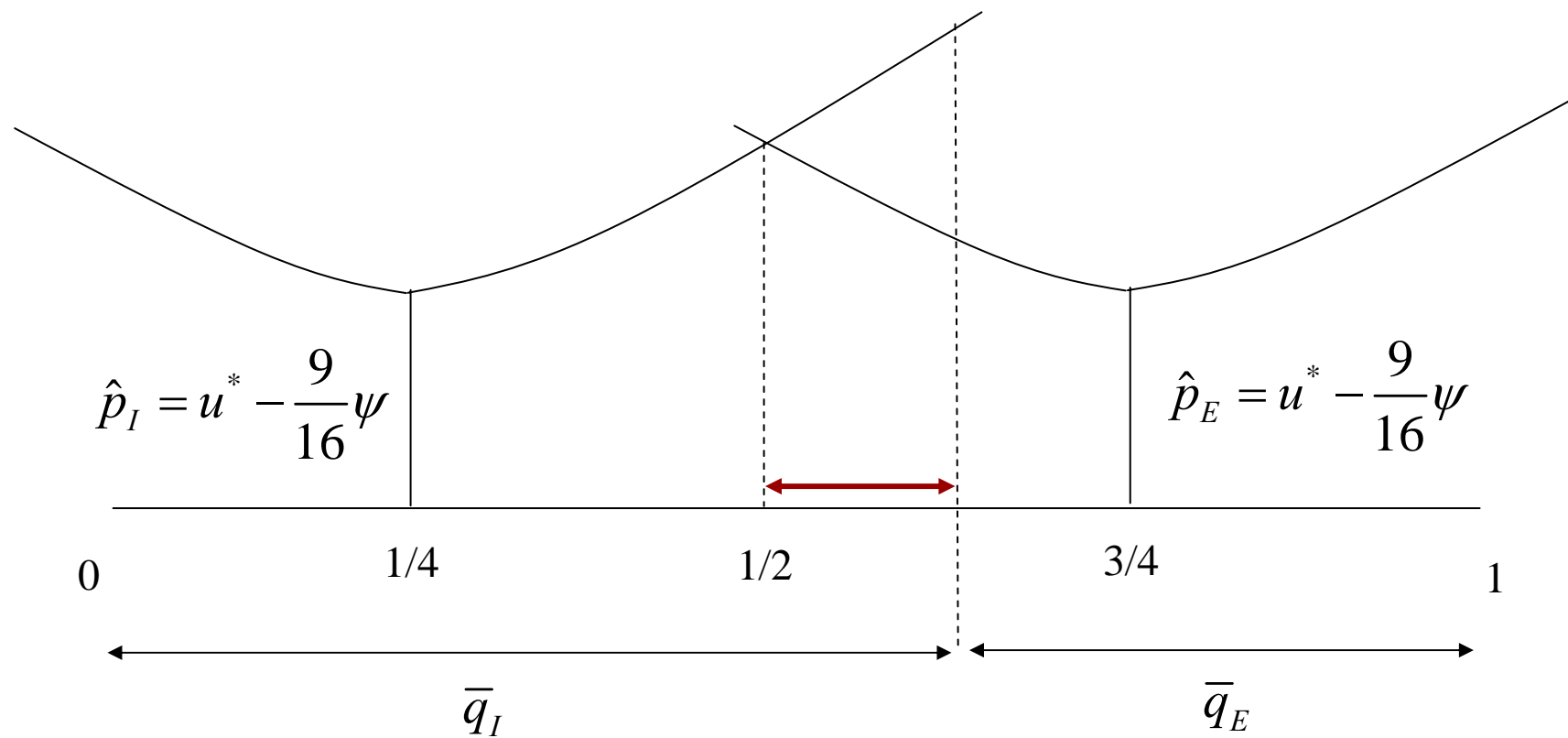
\* since  $I$  exhaust its TOP capacity in market 1, this timing gives leadership to  $E$  in market 2.

# subgame perfect equilibrium

\* in the unique subgame perfect equilibrium,  $I$  is a monopoly on market 1 and  $E$  is a monopoly on market 2.

Remark:

\* this requires that consumers have no anticipation on the price stage at the time they are visited and commit to be a client of  $I$  (market 1) or  $E$  (market 2) before knowing the prices



if they rationally anticipate the last stage of the game, all consumers on the right of  $1/2$  should decline to commit with  $I$ .



# wholesale market

\* proposition 10: the equilibrium wholesale price is at most equal to  $w$ .

Question:

\* could the result be derived from the first part in the case where  $x_I = x_E$ ?

Remark:

\* the problem seems isomorphic to competition on a wholesale electricity market; see Fabra, von der Fehr and Harbord (2002, 2005) or Crampes and Creti (2006).