

Monopolistic competition in the credit market

As anticipated, the writing down of some formal economics – even though highly incomplete – clarifies the relevant issues, and opens the door to improvements. The attached points are reflections and suggestions on the material supplied.

1. The model is incomplete because it does not consider the entry and exit dimension of the issue. In general, symmetric monopolistic competition models solve out for prices, quantities and the equilibrium number of firms. This one doesn't.

This is always a dangerous omission in the economics of public policy, because it is very frequently the case that investments in sunk assets can be exploited *ex post*, and only very rarely that this constitutes sensible policy making. Working with long-run perspectives helps protect against opportunistic tendencies.

2. A linear model for credit demand is a perfectly reasonable starting point for analysis, although it is always sensible to compare against alternative specifications (such as the constant elasticity of substitution formulations of Spence, and Dixit and Stiglitz – off the peg models that are simplified further in Tirole's textbook). However, the particular specification chosen (see para 4 of the CC's note) is simply not sensible.

The quickest way to see this is to look at the equation at para 18. It says that price is an increasing function of n , the number of firms in the market. Further, on the parameter values at para 9, price goes to infinity as n tends to a number less than four. That's crazy.

3. To get to the simplest linear specification that the CC can be confident makes sense, the CC could assume a quadratic utility function (in outputs) and assume price = marginal utility. That would give a set of linear equations in prices and quantities that can be solved for quantities.

Alternatively, it might be simpler to work with a homogeneous Cournot model. Although this doesn't allow for explicit differentiation, the tendency for it to be 'less competitive' than Bertrand models leads to not dissimilar outcomes.

Or there is the Salop circular city framework (again simplified in Tirole), which is really easy to solve out, including with a zero profit condition.

4. The CC continues to reverse engineer, rather than proceed in an orthodox fashion, which would involve first specifying demand and cost conditions, before trying to calibrate. Thus, at para 15, we find the analysis being used to calculate the marginal cost of credit, which should be a parameter of the problem.

This may be OK if there is confidence about the empirical values of all other parameters – the equilibrium condition can be used to infer the last parameter value – but that is not the case here. Because there is uncertainty about parameter values, it would be appropriate to conduct sensitivity tests, to see how things pan out for different values. More obviously, this cost of credit is derived for $n = 2$, a duopoly. Yet it is clear from the evidence that the supply of credit is not, and is not remotely close to, a duopoly.

5. The effect of the CC's approach is that estimates of the cost of credit would vary with the number of competitors (n) that is assumed. In orthodox approaches, it is the cost that is taken as parametric, and the market structure (in the long run) as endogenous – see Spence, Salop, Dixit and Stiglitz, et al. Paras 14 and 15 turn standard economics on its head.
6. On more general issues, it can be noted that the model under consideration would, if appropriately developed, still need to be supplemented, or at least clarified, to be useful in considering the possible effect of a POSP. At the moment the cost structure is assumed to be characterised by a fixed cost and marginal costs of credit and of PPI. The most immediate question is: what would be the cost structure(s) of PPI be if a POSP was implemented?

Presumably there would be additional costs to be incurred by a credit supplier who does, eventually, win the associated PPI business. The additional costs here are additional to any costs of inconvenience experienced by customers – they fall on the supplier. Then again, there is a question of the costs of a credit supplier who captures the PPI business of a credit customer of a rival. All scope economies are presumably not lost – the rivals continue to supply both credit and PPI – but some of them will be, because of the differences in time and place. Finally, there is a question of the specification of a stand-alone PPI provider's costs.

The above cost issues would normally be addressed at the outset of an economic assessment – they are necessary inputs into understanding how the market might evolve if it were subjected to what would be a significant policy 'shock'. As yet, they do not appear to have been addressed.