Summary

The outset for this paper is that prices in the German market for gasoline are inefficiently high. The reason that gasoline prices are too high is the market is characterised by tacit collusion. Furthermore, existing market conditions in Germany in combination with German law makes it impossible to prosecute suppliers in order to stop collusive behaviour.

It is suggested, in the paper, to introduce a tax that is based on the difference between price and marginal cost. This tax, it is argued, punishes collusive behaviour since it taxes the high price that is a result of collusion. In addition, under the tax, firms cannot sanction deviation from collusive behaviour. Finally, charging (what is termed) inflated wholesale prices is an act of fraud under the proposed tax scheme.

Overall, the proposed tax scheme improves welfare by eliminating tacit collusion. Using findings by the Bundeskartellamt (a German regulatory agency), the results are applied to a numerical example.

Assessment.

I have some sympathy for the approach since it is obvious that the problem of collusion in the gasoline market is interesting, and since the paper introduces a new regulatory response to collusion. As I see it, the tax is in effect a tax on collusive behaviour because, on the one hand, it punishes the inefficiently high price that is the upshot of collusion, and, on the other hand, punishes cartel response to deviations. However, in spite of the fact that I am, basically, positive I think the paper needs an overhaul before a final publication.

In the abstract. State what kind of tax you discuss and why it works.

From my point of view, you can shorten section 2.1, or maybe simply drop it and incorporate the content in the introduction. You do not really use all the numbers you discuss in section 2.1 anyway. In addition, I would have thought that a literature review deals with papers that are similar to ours. As it stand, the title of section 2.1 is in my opinion somewhat misplaced.

In section 2.2 I am puzzled by the term saturation level. Equation (2.2) comes from solving $a - bx_I = a - s^{-1}x_{II}^2, x_{II} = x_I = x^{sat}$. Why is this a saturation level? It is simply where the two different demand curves intersect. Incidentally, why not discuss the two demand curves in a little detail in order to justify why you have opted for a linear demand curve and a demand curve where the second derivative is negative (meaning that there is an upper limit to demand even if the price is zero).

I have a hard time seeing the exact role of (using your term) the saturation level. Is the idea that we study x's satisfying $x \leq x^{sat}$? If yes, this implies that we study x's for which $D_{II}(x) > D_I(x)$, that is, the demand function D_{II} is placed above the demand function D_I for x's in the relevant range. You have to explain the

implication of this. I suppose that it is important later on in section 2.3 since you determine the parameter b using the saturation level?

Incidentally, at this point, in equation (2.3), the restriction on prices, $0 \leq p \leq 250$, is not needed. State the restriction in the example were it is relevant.

You write $MC = c + t^E + t^U$. It might give the impression that the marginal cost is fixed. But it is not fixed since $t^U = \beta D_i(x_i), i = I, II$. I think that you should write out the firm's profit in full and then, based on the profit function, discuss the marginal cost. Less important, why not use τ (rather than β) for the ad valorem tax rate.

In section 2.2.4 I am a little confused with respect to proposition 1. I think that your message becomes clearer by writing the firm's profit under that cartel-tax (t^{cartel}) and then based on this expression state two lemmas:

Lemma 1: A tax given by $t^{cartel} = \cdots ..$ implies:

a.

b.

c.

Proof: see appendix

Lemma 2: Under the cartel tax...

i.

ii.

iii

iv.

Proof: see appendix

In the text you can discuss the most crucial aspects of the arguments given in the proofs. Particularly, I think that you need more text concerning the point about tax fraud (just before figure 2). These suggestions are about exposition only but my guess is that you have more readers if you follow them. Moreover, in comparison to your existing discussion, I think that the lemma/proposition-proof calls for analysis that is a little more formal. As it stands, it is at verbal discussion that cannot go as a proof (in my opinion).

You can collect the findings of the two lemmas in a recap of the existing proposition 1.

I do not have specific comments on section 2.3. But maybe it is a good idea to discuss how different assumptions on numbers affect the looks alike of the tax scheme?

There is one comment that applies to the paper as a whole. It seems to be an implicit assumption in the paper that the market for gasoline produce high but stable prices. At least, there is no mention of price wars. There is in fact a large literature on this. From a personal point of view, I think it is all right to ignore this aspect but it might be better to mention that you do so.

Finally, make sure that you write Figure 1 rather than Figure1, and Proposition 1 rather than Proposition1 and so on.