

Responses to the comments of the referee on *How Can Voters Classify an Incumbent Under Output Persistence?* (MS 171) by António Caleiro

First of all, I would like to thank the stimulating comments of the referee. In what follows I will respond to each of the questions that were made by the referee. In doing so I aim at providing a clearer context and motivation to the analysis, this being an improvement of the paper which should be thanked to the referee. Obviously, the current version of the paper reflects the contents of these responses of mine.

1st question: *What are the practical implications of this modeling exercise?*

In practical terms the paper calls the attention for the fact, somewhat ignored in the literature, that the incumbent's behaviour may be wrongly classified by the electorate. This fact, though trivial in a non-rational framework, has obvious consequences given that, when there is a certain amount of output persistence, a benevolent incumbent can be viewed by the electorate as merely trying to win the forthcoming elections, whereas an opportunistic incumbent can be 'judged as being innocent' in (the attempt of) just using the macroeconomic policy for electoral purposes.

At the first sight, the possibility of an erroneous classification of the incumbent would be a further (unfair) source of motivation for the incumbent government to be of an opportunistic type. In fact, this is not necessarily true as, by nature, the benevolent incumbent's objective function considers social welfare, decreasingly discounted in an infinite horizon whereas the opportunistic incumbent's objective function considers popularity increasingly discounted throughout the mandate. This is to say that, in my opinion, the actual incumbent will always behave as its true type despite the possibility that some classification mistakes can be made by the electorate. As a matter of fact, in case of a mistake, this can be viewed as electorally-rewarding to the benevolent government – a result that has been studied in the literature; see also the answer to the next question – and electorally-penalising to the opportunistic government.

A not so evident practical implication gives respect to the structure of the economy. As is well-known, the aggregate supply curve (without persistence) was comprehensively analysed with a view to determine what should be done to eliminate or, at least, reduce the established fact of inflation bias. Various solutions were provided including, although less mentioned, the one focusing on the way the structure of the economy should be changed. In our case, the same practical implication may be put forward, in the case of being beneficial that the electorate do not make classification mistakes. Plainly this would lead to measures reducing the level of persistence on output.

2nd question: *What can it teach us about the behavior of voters evaluating the macroeconomic policies and performance of incumbent governments?*

As is well-known, the literature on electoral business cycles generally comes to the conclusion that the short-run electorally-induced fluctuations prejudice the long-run welfare. Since the very first studies on the matter, some authors offered suggestions as to what should be done against this electorally-induced instability. In fact, we can presume that if electoral business cycles do exist it is because voters, being ignorant, allow them to be created by *opportunistic* incumbents or, indeed, because the government, being *benevolent*, i.e. in the case of implementing policies that are optimal in the long-run for society, may be electorally punished by voters.

The paper brings that analysis closer to reality by making it possible that (bounded rationality) voters may not be able to distinguish the opportunistic behaviour from the benevolent one, therefore making it impossible to make use of some traditional ‘solutions’ to the problem of electorally provoked instability, which rely, in an implicit or explicit way, on the clear separation between those two types of incumbents. In any case, if the electorate realises that its behaviour is crucial, not only to the electoral results but also to social welfare, then it can be the case that, at the beginning of any mandate, a set of macro-decisions rules as reaction functions by the distinct incumbents, should be made public in order to help the electorate to perform the classification task. This, in its turn, would then make it possible that a non-representative behaviour of voters induce the government to behave as representative of the society’s interests (without punishing it) – see also the answer to the next question.

3rd question: *Assuming that incumbent governments can be correctly classified as opportunistic or benevolent, what are the implications for macroeconomic policies and performance over the electoral cycle?*

In case of being possible to correctly classify the behaviour of the incumbent, it would then be possible to make use of the ‘solutions’ (to eliminate the malefic consequences of electoral cycles) that the literature has been proposing, in fact since the seminal article of Nordhaus. Plainly, a ‘solution’ *a la* Nordhaus (1975) based upon the benefits of learning voters, or one *a la* MacRae (1977) based upon strategic voting, or even one *a la* Minford (1995) based upon electoral punishment, differ in what concern the implications for macroeconomic policies and performance over the electoral cycle.

One of those ‘solutions’, which can be considered particularly appropriate, given that it also consider the implications of output persistence, was (already) studied elsewhere (Caleiro, 2004). Here it was shown how, from the society’s point of view, a non-representative behaviour of voters may induce the government to behave as a representative agent of the society’s interests. To put it clearer, as a source of possible confusion between the two types of incumbents would not exist, it would then be

possible to establish a contract such that the electorate votes in order to make an opportunistic government to choose policies that are the ones that society would consider the best ones. In other words, in this case, the socially optimal macroeconomic policies and outcomes would then be observable.

References:

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