#### Dear Referee 1, Referee 2, and anonymous commenter,

I thank you all for taking the time and effort to review my submission, and to post a set of detailed constructive comments. Please find attached my responses to your comments, which I hope to guide the next round of revisions for this paper. I have included these comments and responses together, since it was useful to see the points on which the commenters agreed.

In what follows, the original reports are in **bold** and my replies are in plain text. I have structured my replies with an eye toward improving the next draft of the paper.

A few general comments are in order, with respect to the structure of the paper. First of all, all three commenters have suggested additional content to include, plus a table of empirical results. I am happy to follow their suggestions, with an eye toward maintaining an easy-to-follow structure for the paper. To make this structure easier to follow, I will also lengthen the introduction in order to further clarify the structure and aims of the paper. Finally, I will make the current Section 2 into a subsection of the current Section 3 (or vice versa), and I will add a parallel subsection in the current Section 4, where I talk about monetary-fiscal interactions, stability, and determinacy.

Altogether, I believe that these modifications will improve the paper substantially. After making these modifications, I believe that the paper will be a good candidate for publication as a survey or overview.

Sincerely,

**Claire Reicher** 

#### **Referee Report #1**

The paper offers a literature review on the fast growing branch of issues related to systematic fiscal policy over the business cycle. I like the paper as the topic is highly relevant. Nevertheless, in my view parts of the paper need to be rewritten.

## **Main Comments**

1. The way households form their consumption is key to understand the effectiveness of fiscal policy to stimulate output. Keynes (1936) forwarded the idea that households condition their current consumption on current income. As it is well known, this makes fiscal policy highly effective. Recently this idea has been revitalized under the header "financial frictions". Financial frictions are key to understand the effectiveness of fiscal policy, may it be systematic or discretionary policy. In my view the review offered by the author is much too narrow in the coverage of this aspect of recent literature. There are at least three established ways to introduce financial frictions that are relevant for fiscal policy. The first is Rule-of-thumb consumers. This aspect is somewhat covered in the paper. The second aspect [is] collateral-constraint consumers which is not sufficiently covered and the third aspect is limited asset-market participation by liquidity-constraint consumers that exhaust their precautionary savings. Let me say some words on each of the frictions. Rule-of-thumb consumer's directly follow the old Keynesian idea that consumption depends on current income. This may be for two reasons. First, people are not so sophisticated to form optimal intertemporal consumption plans. Second, people do not have sufficient access to financial markets.

Note that many colleagues in the macroeconomic profession dislike the idea that economic agents do not optimize. So in my view, the review offers a far too sympathetic perception of the Rule-of-thumb hypothesis. A more sophisticated way to model excess dependency on current income is to model collateral constraint consumers, which makes the friction endogenous to the model. In so far, as fiscal policy affects the business cycle and thus collateral values fiscal authorities will boost/ depress the consumption behavior of collateral constraint households. A third sophisticated approach to model endogenous constraints is precautionary savings. If agents are credit constraint public debt offers a stock of financial assets that agents can use to save in. As shown in Challe and Ragot (2011) this also enhances the effectiveness of fiscal policy. In a nutshell, the author should give a broader overview on financial frictions and their relevance for the transmission of fiscal policy.

I agree with the referee that the microfoundations for rule-of-thumb consumers are rather shaky as they are applied in many settings, and that it is better to model rule-of-thumb type behavior as an equilibrium phenomenon. Given this, I will add references to these strands of the macro literature—including the specific reference given—toward the end of Section 4.1.

2. I would like to have some more information on the interaction of government size and macroeconomic stability. I do not find, in my view, sufficient coverage on the interaction of systematic institutional feature such as progressive tax systems, degree of redistribution in the society and macroeconomic stability.

This point seems to cover two issues, which I will discuss in turn.

First issue: The interaction between government size (i.e. average tax rates, the size of government spending or transfer systems—Sections 3.3 and 4.5) and macroeconomic stability is a very interesting issue—in fact, it's one of the big questions in macro. Accordingly, this interaction is the subject of some current work of mine. This current work is motivated by the fact that the main part of the literature on this interaction is relatively thin. I can add a few more things to this section—there are a few things on public employment, for instance—with the idea that this is a strand of the literature that should be developed a bit more.

Second issue: With respect to progressive tax systems, there are two major ways in which progressive taxes can affect macroeconomic stability. The first way has to do with allowing marginal tax rates to covary positively with output; the second mechanism has to do with reducing fluctuations in disposable income. These mechanisms would fit into the second and third paragraphs of Section 4.1, respectively. I can rework this paragraph to more transparently reflect these ideas. There is a literature along these lines—see, for instance, Christiano and Harrison (1999) for the first point, as well as McKay and Reis (2013) for both points. However, note also that Végh and Vuletin (2012) and Reicher (2014) find that *average* tax rates appear to be acyclical in the data (my guess: because of indivisible labor), and so this theoretical idea might be of limited empirical relevance. Given this state of the literature, I can certainly expand Section 4.1 to talk more about progressive taxes.

# 3. In my view, it would be nice for the reader if the author would collect results and provide some tables with key facts. For instance, it may be an idea to provide a table that collects estimates on the sensitivity of revenues to the cycle, inside and outside the US.

I can modify Sections 3.1 and 3.2 to accomplish this, with the caveat that the results between one study and the next are not strictly comparable. This would also address one of the concerns of the second referee.

4. I understand that the paper is focused on systematic fiscal policy. But by that strategy many highly relevant topics are not covered. In particular, the author does not systematically review issues of fiscal consolidation in the euro area and the effects on the business cycle. Additionally issues like the effectiveness of fiscal policy may it be systematic or unsystematic in the zero lower bound of nominal interest rates is not covered sufficiently. Also issues of fiscal austerity and the question if fiscal austerity may be expansionary if credibility is regained on financial markets is not covered. The author may rethink if these issues can be covered in an additional section.

The criterion for a strand of literature to be covered in the original draft was based on the answer to the question, "Does this strand of literature contribute substantially to an understanding about the effects of systematic fiscal policy or fiscal rules, in a macro context?" In practice, answering this question involved seeing whether a given substrand of the literature can fit into one or more of three main strands: anticyclical (stabilization) policy, consolidation policy, or government size more generally. The key to including something is to do so while keeping some structure to the paper. This issue relates to an issue raised by Reviewer 2, which will result in including a discussion of this issue toward the end of the introduction.

Based on the inclusion criterion laid out above, I already include a discussion about consolidation in the euro area within the first paragraph of Section 5. I can expand this section a bit more, especially as new research continues to be done in this area.

Based on the inclusion criterion, a discussion about unsystematic fiscal policy at the zero lower bound (ZLB), while interesting, would not fit into any of these strands, *unless* that discussion helped us to understand systematic fiscal policy at the ZLB. Most of the literature on the ZLB is about the propagation of fiscal policy shocks at the ZLB, via an interaction among sticky prices, inflation, and real interest rates. Given that there has not been a large amount of discussion about systematic fiscal policy and the ZLB, I decided to exclude discussions about the ZLB from the original draft. However, I can add a few lines in Section 4.1 about the propagation of shocks at the ZLB, and I can add to Section 4.2 in order to talk about optimal policy at the ZLB, which is beginning to be discussed—see, for example, Cantore et al. (2013), Burgert and Schmidt (2014), and related papers. Adding a small discussion about these papers would allow this review to remain current, although I think that it would be better to include this discussion in-line rather than as a separate section.

Based on the inclusion criterion, a discussion about "expansionary austerity" can be of interest. In fact, I had such a discussion in an earlier draft, before I removed it. I can happily modify Section 5 to include a subsection about this debate.

# Literature (only those not cited...)

Challe, Edouard and Xavier Ragot, 2011. "Fiscal Policy in a Tractable Liquidity-Constrained Economy," Economic Journal, Royal Economic Society, vol. 121(551), pages 273-317, March.

# Keynes, John Maynard. 1936. General Theory of Employment, Interest and Money. Cambridge University Press.

Burgert, Matthias, and Sebastian Schmidt, 2014. "Dealing with a liquidity trap when government debt matters: Optimal time-consistent monetary and fiscal policy," Journal of Economic Dynamics and Control, Elsevier, vol. 47, pages 282-299, Forthcoming.

Cantore, Cristiano, Paul Levine, Giovanni Melina, and Joseph Pearlman, 2013. "Optimal fiscal and monetary rules in normal and abnormal times," School of Social Sciences, City University of London, Discussion Paper No. 13/16.

Christiano, Lawrence, and Sharon Harrison, 1999. "Chaos, Sunspots, and Automatic Stabilizers," Journal of Monetary Economics, Elsevier, vol. 44(1), pages 3-31, August.

Reicher, Claire, 2014. "A set of estimated fiscal rules for a cross-section of countries: Stabilization and consolidation through which instruments?" Journal of Macroeconomics, Elsevier, Forthcoming.

## Summary

In summary, thank you for the considerable amount of time and feedback given to evaluating this paper. In particular, I think that the suggestions with respect to content (in particular) are extremely constructive.

#### **Referee Report #2**

#### Summary

The manuscript "Systematic Fiscal Policy and Macroeconomic performance: A critical overview of the literature" aims to provide a systematic review of the large economic literature that analyzes the relationship between macroeconomic and fiscal variables. It intends to cover both the theoretical and empirical literature on the subject, with reference to the developed economies. As this is a literature review, there are not identified specific findings, but are highlighted what are the most important elements arising from the works analyzed.

In my opinion, the understanding of the role played by systematic fiscal policy on countries' macroeconomic performance has certainly merits. The topic is very actual and relevant, and the papers enters in the debate in a timely manner, providing an useful guide, even for not necessarily expert readers, to understand how this research topic is addressed in the literature. For this reason the paper fits well in the category "Surveys and Overviews" of Economics.

Nonetheless, the paper presents some elements that require a review by the authors:

#### **Major Comments**

Structure of the paper. The structure of the paper is not entirely clear. The key point of this paper is the ability to provide a rational structure of the literature on a subject so vast and complicated. However, the paper does not give a clear evidence of this structure and how the different sections are linked to each other. An explicit paragraph in the first section covering the structure of the paper would therefore be useful.

While a boilerplate "roadmap" paragraph is normally not useful, I agree with the referee that the reader could use a bit more direction with respect to the organization of the paper. Therefore I can include a discussion about this issue within the introduction. This discussion will also cover the inclusion criteria for the paper (see below), since both issues relate to the structure of the paper.

Coverage of the paper. Several choices are made by the author with respect to what topics the paper covers or not. This is a necessary and fully understandable choice, given the vastness of the literature. However, the choices of the author are not adequately supported in the text, thus leaving room for criticisms on the adequate coverage of the literature review. More details that explain author's vision in addressing the literature would then be useful.

The criterion for a strand of literature to be covered in the original draft was based on the answer to the question, "Does this strand of literature contribute substantially to an understanding about the effects of systematic fiscal policy or fiscal rules, in a macro context?" In practice, answering this question involved seeing whether a given substrand of the literature can fit into one or more of three main strands: anticyclical (stabilization) policy, consolidation policy, or government size more generally. The key to including something is to do so while keeping some structure to the paper. I agree with the referee that it might be good to be explicit about this within the introduction, in order to give the reader a better sense about what the paper sets out to accomplish.

In addition to this, I can include a few more of the topics mentioned by Referee 1, based on whether or not some additional substrands of the literature meet this criterion.

# **Minor Comments**

Definitions. Since the beginning of the paper, the author uses the term "Systematic". As, according to Economics' Aims and Scope, the Surveys and Overviews are directed to a general audience interested in economic issues, a clear clarification of the concept is needed.

I can add a definition of "systematic" fiscal policy to the introduction, along these lines.

Summary of the econometric results: it would be useful to provide some tables summarizing the different results obtained in the cited econometric works. By specifying country coverage, time span, econometric technique, this would better clarify why some papers reach conflicting results.

I can modify Sections 3.1 and 3.2 to accomplish this, with the caveat that the results between one study and the next are not strictly comparable. This would also address one of the concerns of the first referee.

# **Concluding Remarks**

I personally suggest the publication of this paper, especially due to the policy relevance of the topic, in Economics E-Journal. Its aim is perfectly in line with the Surveys and Overviews publishing area. Nevertheless, before its publishing, it is important to strength it by giving a better structure of the contents. This would help the reader in the understanding of the topic and author's critical view.

Thank you for the considerable amount of time and feedback given to evaluating this paper. I think that the suggestions, particularly with regard to organization, might make it easier for the reader to follow the structure of this paper.

### Anonymous comment

This manuscript attempts to critically review the recent literature that examines the theoretical and/or empirical interrelations between systematic fiscal policy and macroeconomic performance within developed countries. My overall assessment is that this is a well-motivated and nicely-implemented survey article which has provided an insightful overview on a prevalent research topic in macroeconomics. I also believe this manuscript will likely become publishable in Economics E-Journal after addressing following minor comments:

**1.** Instead of using the term "anticyclical policy", which might lead to unnecessary confusion/misunderstanding, I suggest the author change it to "stabilization policy".

Thank you; this is a great idea! I will change the text in this manner. Also, in my other work, I have begun to refer to "stabilization policy" instead of "anticyclical policy".

# 2. There are several places in the manuscript that the author uses merely one sentence to describe or summarize a particular article, which (to me) seems making these discussions disconnected with the remaining text.

Thanks. I will go over the text a few more times and correct cases where this occurs.

# **3.** To expand the relevant coverage of this manuscript, I think the author should add a review on the relationship between various fiscal policy rules and macroeconomic stability.

There are several possible interpretations of this comment. One interpretation is to link Section 4.3 more concretely with the idea of stabilization policies as embodying some sort of explicit or implicit rule, which is an idea from the empirical literature. I can do this rather easily.

Another interpretation of this comment is to think about different *types* of fiscal policy rules—e.g. debt rules, deficit rules, and so on—and to link these rules with stability and determinacy. For historical reasons, much of the latter literature is actually part of the monetary policy literature (e.g. Leeper (1991)), which motivates Section 2. Given that the current Section 2 discusses the empirical monetary-fiscal literature, it would not be out of line to include a new Section 4.2 which discusses the theoretical monetary-fiscal literature, to the extent that parts of this literature break Ricardian equivalence. Doing things in this manner could actually strengthen the parallel structure of the paper, so long as I do not get sidetracked into an extended discussion about monetary policy.

Yet another interpretation of this comment is as a request to expand the second paragraph of Section 5 to include more of a discussion about policy simulations and output volatility, particularly in the EMU context. I can expand this discussion somewhat, and this is a discussion that interests me a great deal since it touches upon my own recent and current work.

## Summary

In summary, thank you for the considerable amount of time and feedback given to evaluating this paper. I appreciate the constructive suggestions that you have given in order to improve the paper, and these suggestions will be useful as I revise the paper.