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When do fiscal consolidations lead to consumption booms? Lessons from a laboratory experiment

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ABSTRACT

According to the expectations channel, a fiscal consolidation may give rise to less contractionary, or even expansionary effects on consumption, despite a decline in current disposable income. Intuitively, people may accumulate a stock of savings in anticipation of the consolidation and may start to reduce their savings to support consumption once it occurs. We design a laboratory experiment to study the conditions under which the expectations channel operates. Our results indicate that fiscal contractions that occur in an unsustainable fiscal environment exert less contractionary effects on consumption, which supports the expectations channel. We also find that the expectations channel is more pronounced if the fiscal authority can convincingly commit to abstain from tax increases in the future, whereas increasing subjects' level of awareness by running a transparent policy has only little influence on the outcomes.

1. Introduction

Throughout the industrialized world, debt-to-GDP ratios have increased strongly in the aftermath of the global financial crisis, resulting in frequent calls for fiscal austerity measures. An important issue in this context are the macroeconomic consequences associated with fiscal consolidations. While standard Keynesian arguments suggest that fiscal consolidations should be associated with declines in overall economic activity, Giavazzi and Pagano (1990) were among the first to point out that consolidations may give rise to expansionary effects even in the short run.[3]

Nevertheless, the idea that fiscal consolidations can exert expansionary effects remains controversial for at least two reasons: first, empirical evidence is inconclusive. While several authors report instances of fiscal consolidations that were accompanied by higher GDP growth (see e.g. Perotti, 1999; van Aarle and Garretsen, 2003; Alesina and Ardagna, 2010, 2013), a number of studies reaches opposite conclusions (see e.g. Guajardo et al., 2014; Jordà and Taylor, 2016). Also, from a broader perspective, the literature on fiscal multipliers is similarly ambiguous and reports a wide range of estimated multipliers (Cogan et al., 2010; Ramey, 2011). Second, the channels and mechanisms through which a fiscal contraction may generate

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[3] They analyzed the effects of fiscal consolidations in Ireland and Denmark where fiscal reforms coincided with consumption booms during the 1980s.

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expansionary effects are not fully understood. Alesina and Perotti (1996) and Alesina et al. (2015) stress that fiscal contractions can give rise to expansionary supply side effects. The argument is that adjustments that involve cuts in the government wage bill lead to wage moderation in the private sector, which in turn stimulates employment and, ultimately, growth. In addition, cutting back on public debt can reduce sovereign default risk and interest rates, which may then boost investment and consumption (McDermott and Wescott, 1996).

In this paper, we focus on the so-called expectations channel (Blanchard, 1990; Bertola and Drazen, 1993; Sutherland, 1997; Ardagna, 2004), through which a fiscal consolidation may also exert expansionary effects. The intuition goes as follows: if the fiscal position is initially perceived to be unsustainable, then consumers expect a consolidation to occur in the future and build up a stock of savings that can be used to compensate the expected decline in disposable income associated with the consolidation. When the consolidation finally occurs, households respond with an increase in consumption, resulting in higher aggregate demand. If this channel is active, then any contractionary effects induced by the consolidation are counteracted and, if the channel is strong enough, the increase in aggregate demand may translate into expansionary effects at the macroeconomic level.

For the expectations channel, forward-looking decision making and the perception of fiscal policy play a crucial role. The purpose of this paper is to study these aspects in a laboratory experiment. Specifically, we explore under which circumstances, subjects' behavior gives rise to an active expectations channel. Since it is rather challenging to identify the effects of forward-looking behavior in macroeconomic data, a laboratory setting is a promising environment. In addition, the experimental method allows us to isolate the expectation channel and abstract from other factors that may determine the macroeconomic effects of fiscal policy.[4]

In our experimental design, subjects make repeated consumption and savings decisions taking into account current and future fiscal policy. Since the fiscal position before and after a consolidation plays a crucial role for the expectations channel, we vary the extent to which the fiscal stance prevailing at the start of the experiment is sustainable across treatments. We also vary the type as well as the amount of information available to the subjects across treatments, to study how subjects process information about fiscal positions.

We find that initial fiscal conditions do matter in the sense that consumption declines less in response to a consolidation if the initial position is unsustainable. In other words, fiscal consolidations that occur in an unsustainable fiscal environment exert less contractionary effects on consumption, which is in line with the expectations channel. Nevertheless, we also find that subjects exhibit strong tendencies to maintain a stock of savings after the consolidation. We obtain this result despite the fact that the consolidation is credible in the sense that further tax increases are not necessary.

We conclude that although precautionary behavior is required to build up a sufficiently large saving stock before the consolidation, by the same virtue, subjects refrain from consumption after the contraction, even if the consolidation leads to a sustainable fiscal position. We obtain stronger effects if the fiscal authority can convincingly commit to abstain from tax increases in the future. Thus, while the existing literature emphasizes that consolidations have to be credible in the sense of leading to a sustainable fiscal position (e.g. Giavazzi and Pagano, 1996; Bergman and Hutchison, 2010), our findings show that this may not be sufficient for a quantitatively more pronounced expectations channel. We also find that increasing subjects' level of awareness of the sustainable nature of the fiscal position by running a transparent policy has only little influence on the outcomes.

The paper is related to several strands of the experimental literature. The bulk of the experimental literature on fiscal policy in a macroeconomic context evaluates the Ricardian equivalence proposition (Cadsby and Frank, 1991; Slate et al., 1995; Ricciuti and Di Laurea, 2003; Adji et al., 2009; Meissner and Afschar, 2014, among others).[5] While Ricardian equivalence is also based on the assumption that agents take future fiscal policy into account when making consumption decisions, our paper differs from these contributions in terms of our focus on fiscal contractions and in terms of the experimental design.[6] A large strand of the experimental literature explores the formation of expectations (see e.g. Hommes, 2011) and Bernasconi et al. (2009) study expectation formation in the context of fiscal policy. They show that subjects have only a limited ability to forecast and interpret real world fiscal data, but do not analyze potential implications for consumption behavior, which is the focus of our analysis. Although our analysis is about fiscal policy, the paper is also related to Kryvtsov and Petersen (2013), who investigate expectation effects in the context of monetary policy.[7] In terms of the experimental design, our setting shares some similarities with experimental work on dynamic consumption and saving behavior (see, for instance Hey and Dardanoni, 1988; Noussair and Matheny, 2000; Lei and Noussair, 2002; Ballinger et al., 2003; Carbone and Hey, 2004; Brown et al., 2009). Nevertheless, in our design, we abstract from a number of complications, which typically arise in intertemporal choice experiments,[8] to focus on the crucial elements of the expectations channel.

[4] E.g. the level of economic development, the exchange rate regime, openness (see e.g. Ilzetzki et al., 2013), monetary policy (see e.g. Bi et al., 2013), credit market conditions (see e.g. Auerbach et al., 2010), or the level of public debt (see e.g. Ilzetzki et al., 2013; Bi et al., 2013).

[5] See Duffy (2012) for surveys of the experimental macroeconomics in general.

[6] In fact, as we will discuss below, Ricardian equivalence does not hold in our setting.

[7] A large empirical literature studies the effects of central bank communication and forward guidance and expected policy in the context of monetary policy (see e.g. Neuenkirch, 2012; Campbell et al., 2012). See Leeper (2009) for a discussion of the similarities between fiscal and monetary policy with respect to transparency and anchoring of expectations.

[8] E.g. the complexity of the decision problem (Noussair and Matheny, 2000), the critical role of experience (Ballinger et al., 2003), and the limited ability of subjects to deal with long planing horizons and stochastic processes (Carbone and Hey, 2004).