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The Effect of Unconventional Fiscal Policy on Consumption Expenditure[1]

The Euro area faces zero inflation paired with low economic growth, at a time when the effective lower bound on nominal interest rates and large budget deficits are constraining conventional monetary and fiscal policy. In this article, we discuss the theoretical and empirical evidence on unconventional measures of fiscal policy that increase inflation, spur economic growth, and keep the tax burden on households constant without inducing budget deficits.

Over six years after the end of the Great Recession in the US, most major developed economies are still showing sluggish growth, and southern European countries are suffering from austerity measures. Many experts argue that structural reforms are necessary to improve the competitiveness of these countries in the long run. But promoting a short-run increase in aggregate demand is also necessary to jump start the economy.

In his Marjolin lecture on February 4, 2016, the president of the European Central Bank, Mr. Mario Draghi, asserted, "…there are forces in the global economy that are conspiring to hold inflation down." (Draghi 2016). According to Eurostat, the annual inflation rate for the Euro area was -0.2 percent in February 2016 (Eurostat 2016). On March 10, 2016, the ECB board agreed upon a set of largely unconventional monetary policy measures, with the aim of boosting inflation and growth in the Euro area. These measures were inspired, among others, by thoughts in Bernanke (2010) and Blanchard et al. (2010). The debate on the effectiveness and the costs and benefits of these measures is still ongoing.

The conundrum facing the Euro area is how to find a recipe to support inflation, and ultimately consumption, and economic growth in a setting in which traditional monetary policy measures are not viable, and governments cannot support growth with fiscal spending because of their large debt-to-GDP ratios. In this article, we discuss an alternative to monetary interventions, which we call *unconventional fiscal policy*. Unconventional fiscal policy aims to increase growth and inflation in a budget-neutral fashion, while keeping the tax burden on households constant through pre-announcements of VAT increases. Announcements of future VAT changes are also a salient policy measure for generating inflation expectations, which could be an additional advantage compared to unconventional monetary policy and traditional fiscal policy (see D'Acunto et al. (2017) for a discussion on the relationship between salience of consumer prices and inflation expectations).

UNCONVENTIONAL FISCAL POLICY

Feldstein (2002) introduced the notion of unconventional fiscal policy measures at times of liquidity traps. Among several possible interventions, he proposed a series of pre-announced increases in value-added tax (VAT) to generate consumer price inflation, and hence increase private spending via intertemporal substitution. In his words: "This [VAT] tax-induced inflation would give households an incentive to spend sooner rather than waiting until prices are substantially higher." The intuition for this proposal is based on a simple logic: announcing a path of increasing VAT mechanically will increase future prices and current inflation expectations. Higher inflation expectations at times of fixed nominal interest rates should reduce real interest rates (Fisher equation), and lower real interest rates should increase households' incentives to consume rather than save (Euler equation). Because higher taxes reduce households' wealth and might affect households' labor supply, lower income taxes (or transfers for those households that do not pay any income tax) should accompany the increase in VAT. Designed this way, the policy measure would be budget-neutral for the government, as well as for households. It would incentivize households to consume immediately, jump-start the economy, and hence help it to pull out of recession. In his presidential address to the 2011 American Economic Association Annual Meeting, Bob Hall reiterated Feldstein's ideas, and encouraged further research into the viability and effects of unconventional fiscal policy, both theoretically and empirically. In the United States, the proposal of announcing a national sales tax to take effect on a specified date in the future to speed up recovery at times of economic downturns has been advanced at least back in 1991, in an op-ed for the New York Times by Matthew Shapiro (Shapiro 1991). In Shapiro's words, "How would such a proposal work? […] Consumers, anticipating the tax increase, would accelerate their purchases, particularly of durable goods. This would stimulate the economy immediately, though there would be no immediate direct impact on the deficit."

THEORETICAL UNDERPINNINGS OF UNCONVENTIONAL FISCAL POLICY

Discretionary fiscal policy is often rejected as a tool for business cycle stabilization. It is less desirable than conventional monetary policy due to implementation lags, larger permanent deficits resulting in higher long-term interest rates and distortionary future taxes, and higher marginal propensities to save out of a temporary tax cut (i.e., lower (old) Keynesian multipliers). At the same time, fiscal policy might stimulate demand at times when conventional monetary policy is not viable.

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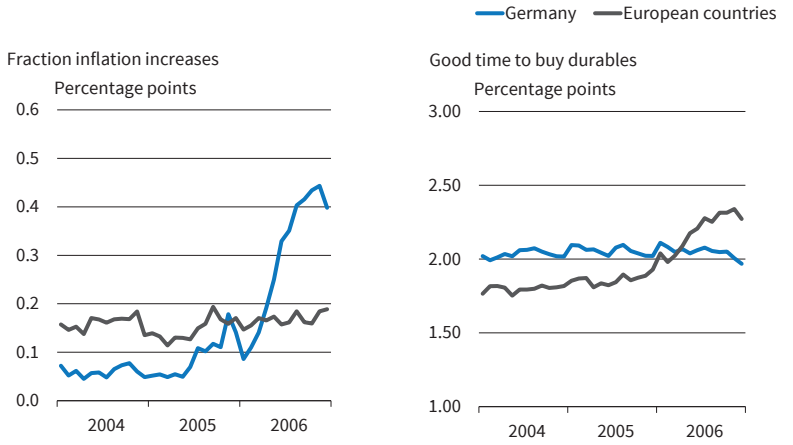
[1] This article summarizes the findings in D'Acunto, Hoang and Weber (2016) and a related post which appeared on VoxEU.

Feldstein (2003) stresses that discretionary fiscal policy does not need to rely on questionable income effects, but could fully operate through an intertemporal substitution channel by increasing private incentives to spend. Higher inflation expectations lead to higher consumer spending today. Unconventional fiscal policy can be expansionary and, at the same time, avoid budget deficits.

Farhi et al. (2013) formalize Feldstein's ideas in a framework with a binding zero lower bound on nominal interest rates. An increasing path of consumption taxes and a decreasing path of income taxes generate inflation expectations and negative real interest rates and stimulate consumption, but do not distort the production decisions of firms. They find these policies can fully offset the zero lower bound constraint without relying on inefficient commitments of low future interest rates or wasteful government spending.

Figure 1

Inflation expectations and readiness to spend on durables: German vs. foreign households



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EMPIRICAL EVIDENCE ON UNCONVENTIONAL FISCAL POLICY

In a recent paper (D'Acunto, Hoang and Weber 2017), we test for the effect of unconventional fiscal policy on households' willingness to purchase durable goods by exploiting a natural experiment in Germany. In November 2005, the newly formed German government unexpectedly announced a three-percentage-point increase in VAT, effective as of January 2007. Two features make this announcement suitable for testing the effect of unconventional fiscal policy compared to other changes in VAT. Firstly, the European Union (EU) imposed the announcement on the German administration to avoid an infringement procedure for the breach of the Maastricht Treaty. The VAT increase was therefore unexpected and unrelated to prospective future economic conditions, and qualifies as an exogenous tax change due to inherited fiscal deficits in the taxonomy of Romer and Romer (2010). Secondly, Germany had no monetary sovereignty as a member of the European Monetary Union. The European Central Bank explicitly excluded any increase in nominal interest rates to counteract the price pressure from a higher VAT in Germany.[2]

As expected, the announcement of the VAT increase was a major positive shock to German households' inflation expectations, but the VAT announcement affected all German households. We cannot study the behavior of German households alone, because a counterfactual is missing. To construct a viable counterfactual to German households' behavior after the shock, we look at households in other EU countries for which we obtained micro data (France, Sweden and the United Kingdom). Our empirical design uses matched households in EU countries not exposed to the VAT shock as a control group for German households. We match German and foreign households based on observables to ensure no systematic differences in the demographic composition of German and foreign households drive the results.

A concern is that these households might not behave similarly to German households. Figure 1 provides evidence that foreign households behaved similarly to German households before the shock in November 2005.

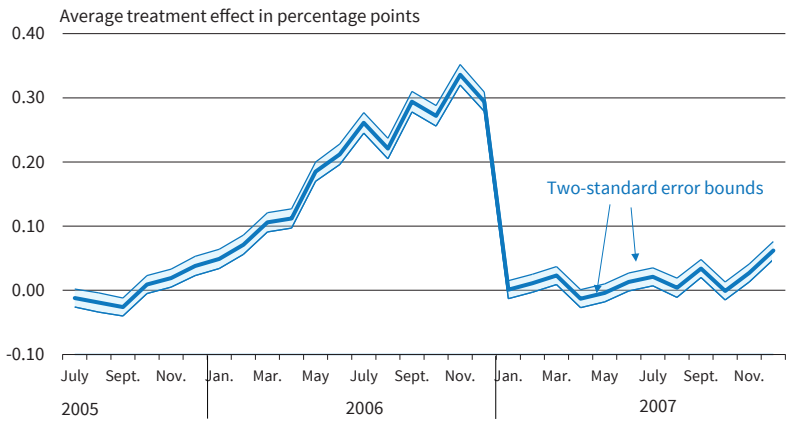
We construct a difference-in-differences identification strategy. We compare the willingness to purchase of German households with that of foreign households, both before and after the VAT shock. To run the analysis at the household level, we match German households with similar foreign households before the announcement of the VAT increase in November 2005. The matching is based on the propensity score, estimated with observables that are homogenously elicited across countries through the harmonized questionnaire of the EU Directorate General for Economic and Financial Affairs. We test formally that German and foreign households are indistinguishable across the matched observables after the matching.

In January 2006, German households were 3.8 percentage points (s.e. 1.5 percentage points) more likely to be willing to purchase durable goods than before the shock, and compared to the matched foreign households. The effect built up in 2006. Figure 2 reports the size of the monthly estimated effect over time. The effect peaked at 34 percentage points in November 2006. The average treatment effect dropped to zero in January 2007 once VAT actually increased and higher inflation materialized. A back-of-the-envelope calculation suggests the three-percentage-point increase in VAT resulted in 10.3 percent higher real durable consumption growth.

[2] In the words of the president of the Bundesbank at the time, Mr. Axel Weber: "We know what the effects of the VAT increase are; as is the case for oil prices, we do not consider one-off effects."

Figure 2

Change in the readiness to spend on durables: German vs. foreign households



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In a large class of models, changes in VAT might affect households' decisions to purchase durable goods through income or wealth effects, rather than inflation expectations. We show that German households' income expectations did not change after the government announced a change in VAT, and hence income effects cannot explain our results. As for wealth effects, changes in non-distortionary taxes do not change household behavior under Ricardian equivalence. If Ricardian equivalence fails, a tax increase results in a negative wealth effect, which would suggest our design identifies a lower bound of the true effect. Inflation expectations might also affect consumption decisions through a redistribution channel in state-of-the-art heterogeneous-agent models. We argue in D'Acunto, Hoang and Weber (2016) that a sizable redistribution channel is unlikely in our setting. We also argue that housing-wealth effects and uncertainty channels are unlikely drivers of our results.

WHAT SHOULD THE ECB AND EUROPEAN GOVERNMENTS DO?

The theoretical and empirical research discussed above has clear-cut implications for policy makers. These implications are especially relevant at times of low inflation and low growth, paired with the non-viability of conventional measures of monetary and fiscal policy, as is currently the case in the Euro area. A series of pre-announced VAT increases and a simultaneous reduction in income taxes – or direct transfers for those households that do not pay income taxes[3] – would result in a predictable increase in inflation without inducing additional uncertainty. They would increase consumer spending and hence growth today, and would not lead to higher budget deficits, all while keeping the total tax burden of households unaffected. Ideally, the last of the series of increases in VAT becomes effective after the end of the liquidity trap once conventional monetary policy has regained power. The governments should reverse the tax changes during normal economic times to keep the gunpowder dry for the next economic slump. The reduction in VAT after the end of the liquidity trap could result in an additional boost in consumer spending.

These measures should be easier to implement in a consensus-based institutional setup like the current European Council compared to other fiscal and monetary proposals. They could satisfy both the instances of Central and Northern European countries, which do not want to tolerate higher budget deficits in the Euro area, as well as the instances of Southern countries, which want to exploit fiscal policy to spur growth without further increasing the high tax burden on households. The fact that these measures do not involve further monetary stimulus or negative interest rates, but open a path to future interest rate increases, means that they would not be opposed by the banking, corporate and household sectors of Central European countries.

If Mr. Draghi wants to counteract the "forces that are conspiring to hold inflation down," Euro area governments and the European Council might be his best allies after all.

[3] European governments have implemented direct transfers to selected groups of taxpayers and non-taxpayers in the last few years, which were not counteracted by higher VAT taxes to neuter their effect on the government budget (e.g., see the "Renzi bonus" in Italy).

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