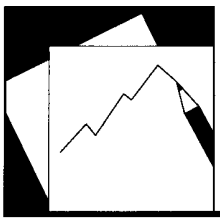
WP/13/36



IMF Working Paper

Fiscal Consolidation and the Cost of Credit: Evidence from Syndicated Loans

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INTERNATIONAL MONETARY FUND

 WP/13/36

IMF Working Paper

Research Department

Fiscal Consolidation and the Cost of Credit: Evidence from Syndicated Loans[†]

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Authorized for distribution by Stijn Claessens

February 2013

Abstract

We examine how the cost of corporate credit varies around fiscal consolidations aimed at reducing government debt. Using a new dataset on fiscal consolidations and syndicated corporate loan data, we find that loan spreads increase with fiscal consolidations, especially for small firms, domestic firms, and for firms with limited alternative financing sources. These adverse effects are mitigated substantially if consolidations are large, and can be avoided if consolidations are also accompanied with more adaptable macroeconomic policies and implemented by a stable government. These findings suggest that lenders price the short-term recessionary effects in loans but large consolidations can reduce or undo the increase in spreads, especially under favorable country conditions, by signaling credibility and creating expansionary expectations.

JEL Classification Numbers: E62, G32, H32, H60

Keywords: fiscal consolidation; sovereign debt; cost of credit; loan spreads

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[†] We are grateful to Olivier Blanchard, Stijn Claessens, Xavier Debrun, Giovanni Dell'Ariccia, David Grigorian, Luc Laeven, Daniel Leigh, Jaejoon Woo, and participants at the IMF Research Seminar for useful comments, to Mehmet Tamay for help with the data, and to Mengyun Miao, Roxana Mihet, Jason Russ, and Ali Sharifkhani for excellent research assistance. Ağca acknowledges support of the George Washington University School of Business.

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I. INTRODUCTION

One legacy of the global financial crisis of 2007-08 is the increase in government debt levels in many advanced economies. The debt-to-GDP ratio has reached a historical peak in the aftermath of the crisis as governments used public funds to bail out the troubled financial systems and to provide stimuli to their ailing economies. As a consequence, fiscal consolidation needed to bring debt levels back to sustainable levels is currently a major policy issue and is likely to remain so in the coming years.[1]

A particularly important question is how efforts to reduce public debt levels affect economic activity. Many studies aim to provide answers to this question by focusing on the aggregate effects of fiscal consolidations on economic performance (see, among others, Giavazzi and Pagano, 1990, 1996; Alesina and Perotti, 1995, 1997; Alesina and Ardagna, 1998, 2010; Clinton et al., 2010; Leigh et al., 2010; and Cottarelli and Jaramillo, 2012). On the long-run effects, there is consensus that public debt reduction has benefits for economic performance. Lower public sector borrowing requirements translate into lower real interest rates, reducing crowding out and spurring private investment. On the short-run effects, the consensus disappears. On the one hand, the Keynesian view asserts that cutting spending or raising taxes put brakes on aggregate demand and, hence, reduces economic activity in the short run. On the other hand, the "expectation and credibility" view argues that fiscal consolidations can be expansionary even in the short run because reduced sovereign default risk and restored credibility lowers interest rates, creating wealth effects, and improves the economy's prospects.

In this paper, we focus on how the cost of corporate credit varies in the short term with fiscal consolidations that are aimed at reducing government debt.[2] Particularly, we seek to answer whether and how banks price in the potential effects of fiscal consolidation when lending. One of the main differences between the "short-run pain" argument (for example, Guajardo et al., 2011) and the "expansionary fiscal consolidations" view (for example, Alesina and Perotti, 1997) is whether the anticipated favorable impact of fiscal consolidation on the economy will materialize in the short term or not. In this regard, a priori, the sign of the relationship between fiscal consolidations and the cost of credit is ambiguous. If lenders price in the reduced default risk premium and the expected improvement in the long-run growth outlook, then the cost of credit would go down, encouraging investment and consumption. If lenders, instead, are more concerned about Keynesian effects or do not find the efforts credible, the cost of credit would increase, reflecting expectations of lower corporate profitability and reduced ability to make timely repayments.[3]

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[1] IMF (2009) has estimated that bringing public debt back to a sustainable level will require, on average, an adjustment of 8 percentage points of GDP in the structural primary balance. Japan, the United Kingdom, Ireland, Spain, Greece, and the United States have been projected to have the largest consolidation needs.

[2] Our focus is on the near contemporaneous or short-term relationship between fiscal consolidation and loan spreads. Any relationship that may prevail in the longer term is beyond the scope of this paper.

[3] Ağca and Igan (2013) show some preliminary evidence that, in the short term, corporate investment responds adversely to fiscal consolidations (defined based on government actions to reduce the public debt level).

Using a loan-level panel dataset and detailed fiscal consolidation measures based on government actions to reduce public debt levels in16 advanced economies over the period 1990-2011, we find that fiscal consolidations are positively associated with spreads in the syndicated loan market. Specifically, loan spreads are higher for small firms, domestic firms, and firms that have limited access to alternative funding such as those without access to international markets through issuance of American depositary receipts (ADRs).

The adverse relation between spreads and fiscal consolidation is mitigated substantially when consolidations are large. This suggests that, when consolidations are not large enough, lenders worry about possible short-term recession due to fiscal consolidation and/or do not find the efforts of consolidation credible in achieving the desired improvement in the economy. As a result, they raise the cost of credit rather than price in the potential benefit of debt reduction on default risk. The expectation of better economic performance in the future and reduced sovereign default risk weigh favorably in pricing loans when consolidations are large, and reduce the adverse effects of consolidation considerably. The fact that the findings are largely driven by small firms, domestic firms, and by firms with limited financing options further supports this interpretation because these are the firms that are subject to a higher degree of asymmetric information (and, hence, suffer more from procyclicality of lending standards) or have a higher degree of exposure to domestic economic policies.

Following Ardagna (2009), Leigh et al. (2010), Guajardo et al. (2011), and Alesina et al. (2012), we also explore whether country conditions matter. Our results indicate that consolidations accompanied by more adaptable policy frameworks featuring accommodating monetary policy stance, flexible exchange rates, and currency devaluations, and implemented by stable governments do not suffer from the short-run adverse effects on the cost of corporate credit.

Examining the details of fiscal consolidation packages, we find that corporate tax hikes are one of the major drivers of higher spreads, whereas social benefit cuts and value-added tax (VAT) hikes are associated with lower spreads. Thus, when pricing loans, lenders seem to account for the possibility of decreasing corporate profitability due to corporate tax hikes. In contrast, social benefit cuts, which are politically sensitive and have a direct effect on corporate profitability to the extent that corporations bear some of the costs through contributions, and VAT hikes, which are less prone to creative accounting, are considered favorable.

We also exploit the variation across sectors in the sense that some measures may have a disproportionate effect on certain sectors. For example, consumption-related tax hikes should affect the firms in the retail sector more adversely than they do other firms. The existence of a significant relation between fiscal consolidations and the cost of credit in sectors that are more directly affected compared to others gives some support to a causal link running from the fiscal consolidation measures to the cost of credit. We consider hikes in consumption, bank, and health care taxes, and spending cuts in transportation, health care, and defense. While we do not find any significant adverse effect of spending cuts on the cost of credit for the related sectors, we find that loan spreads are higher for firms that are in the sectors that face tax hikes, e.g., banking sector with bank tax hikes and health care sector with health care tax hikes. Thus, lenders appear to price in the potential decrease in the profitability of firms in the sectors that experience tax hikes due to fiscal consolidation.

The literature on corporate borrowing costs in relation to fiscal consolidations is rather limited. The existing studies use country-level aggregate data on corporate bonds and the findings tend to vary from one study to another: for instance, Ardagna (2009) reports a negative relationship between fiscal consolidations and corporate bond yields while Laubach (2009) finds an insignificant relationship.[4] To the best of our knowledge, ours is the first study that examines how the cost of corporate credit varies with fiscal consolidations by focusing on syndicated loan market and using a detailed micro-level dataset that exploits information on firm and loan characteristics. By taking advantage of the richness in data regarding variation across firms, we can shed light on how fiscal consolidation affects credit conditions of different corporations. Furthermore, we use measures of fiscal consolidation that are based on government actions that are announced and implemented to reduce the public debt level, and, hence, are exogenous to economic developments, as articulated in Romer and Romer (2010).

Overall, our results have important economic and policy implications. In particular, the long-term gains of debt reduction may come at short-term pain in corporate financing conditions as lenders price in the possible negative impact of fiscal consolidation on growth, creating upward pressure on corporate borrowing costs. Such pain is likely to be borne by small firms, domestic firms, and by firms that have limited financing sources. Also the effects are likely to be stronger for the average firm in a country than those reported in this paper. This is because our sample is comprised of syndicated loans, and the average firm in a country is likely to be smaller and more constrained in terms of alternative financing options than those that have access to syndicated loan markets. Given the plausibility of such an adverse effect in corporate debt markets, policymakers may need to carefully contemplate the design of the measures in fiscal consolidation packages and perhaps complement the package with safeguards for the most vulnerable, especially if credit conditions are already tight, to minimize the damage in the short run. In particular, if consolidations are large enough to convey credibility of these efforts in improving the economic outlook and reducing sovereign default risk, then the adverse effects of consolidation on spreads are mitigated substantially. Furthermore, these unfavorable developments in corporate credit markets can be avoided if consolidations are accompanied by accommodating macroeconomic policy and implemented by stable governments.

The rest of the paper is organized as follows. Section II describes the channels through which fiscal consolidation may have a bearing on corporate borrowing costs. Section III explains the data and the empirical approach. In Section IV, we present and discuss the results on the relation between cost of credit and debt-reduction driven fiscal consolidations. Section V concludes.

[4] Unlike the relationship between corporate yields and fiscal consolidations, there is a vast literature on the relationship between government interest rates and fiscal policy. The evidence, however, remains inconclusive on how government borrowing costs are linked to the fiscal policy stance. See Gale and Orzsag (2002) and Engen and Hubbard (2004) for a review of the earlier studies, and Ardagna (2009) and Baldacci and Kumar (2010) for more recent literature. Note that, in our study, we control for the level and change in the policy interest rates when examining the relationship between fiscal consolidation and corporate loan spreads.

II. Background on the Potential Channels of Transmission

There are several channels that could link fiscal consolidation to the cost of credit. The related literature has looked at the potential impact of fiscal consolidation on the economy from various aspects, namely, the demand side, the supply side, and expectations formation. We summarize the major channels identified in this literature, with an eye on the implications for the short-run relationship between consolidations and cost of credit.

According to the Keynesian view, cutting spending or raising taxes put brakes on aggregate demand and, hence, reduces economic activity in the short run. The projected decrease in the economic activity, as a result, will push up the borrowing costs, especially for those firms that are likely to be affected the most from the recessionary effects of fiscal consolidations. Hence, one would expect to see an increase in the cost of corporate credit around the announcement and after the immediate implementation of fiscal consolidations. Such an effect would be more pronounced for the "marginal" borrowers, who are more subject to asymmetric information and, hence, have limited access to finance, given the procyclicality of lending standards.

The credibility channel, on the other hand, predicts lower borrowing costs and is based on a supply-side argument (Alesina and Perotti, 1997). Large fiscal consolidations, particularly in a high-debt country, reduce the default risk premium as the consolidation enhances the credibility of the government in meeting its obligations. The reduction in the default premium could be reflected as reduced spreads in the corporate loan market. In addition, the expectation that public borrowing requirements will decline as a result of fiscal consolidation could mitigate the crowding-out effect of public debt, increase the available funds for issuance of private debt, and lower loan spreads as a result.

The magnitude of the impact could vary with the measures actually taken to accomplish fiscal consolidation. If the consolidation features direct tax increases and expenditure reduction through cuts focusing on more politically-sensitive areas, such as government wages and welfare spending, the improvement in credibility may be more pronounced. Alternatively, cuts in government spending in less politically-sensitive areas such as public investment and revenue-raising measures focusing on indirect taxes may lead to the perception that the desire to reduce the deficit and bring down the public debt level is not strong. Such a perception may also feed suspicions of "creative accounting," further weakening the credibility of the fiscal consolidation package.

The expectations channel provides another, credibility-related explanation for "expansionary fiscal contractions" (Giavazzi and Pagano, 1990). In this interpretation, large fiscal adjustments can be expansionary because expectations of such adjustments being successful are higher (compared to less ambitious adjustments). This channel can be combined with the credibility channel discussed above. If fiscal adjustment is expected to be successful, then loan spreads should decrease. Thus, improvement in loan terms when fiscal consolidations are large can be interpreted as evidence in support of both the credibility and expectations channels.[5]

[5] Another channel discussed in the literature relies on wealth effects (Alesina and Ardagna, 1998). If spending cuts are permanent, then forward-looking agents take into account the decrease in tax burdens in the future and therefore

(continued…)

Overall, tightening of fiscal policy with an objective to reduce budget deficits and lower public debt levels can have opposing effects. On the one hand, such fiscal consolidations reduce the default risk premium that arises from sovereign debt and lead to expectations of better economic performance by reducing sovereign debt levels. This improvement could be transmitted to the corporate debt market through a lower cost of credit. On the other hand, if fiscal consolidations are not considered credible in reducing deficit and improving economic outlook, or if the growth prospects of corporations and their ability to make timely repayments worsen due to falling aggregate demand, borrowing conditions can deteriorate. We examine these possibilities in the following sections using corporate syndicated loan data and a detailed dataset on sovereign-debt–reduction-driven fiscal consolidations.

III. DATA AND METHODOLOGY

A. Data

The data used in this study come from several sources. Syndicated loan characteristics are from Dealogic. Firm-level financial and accounting data are from Worldscope. Loan-level data are matched with firm-level data manually. The majority of the macro-level data are from the OECD, IMF and the World Bank. Sovereign ratings are from Moody's. Government debt data are from Reinhart and Rogoff (2011). Indices summarizing information on government stability, law and order, and corruption come from the PRS Group's International Country Risk Guide (ICRG). The final dataset has 4,967 observations, covering 16 countries over the period 1990-2011. The list of variables, along with the definition and the data source for each variable, is in Appendix Table 1. The number of observations for each country and the number of observations in each year are given in Appendix Table 2.

Fiscal Consolidation Measure

Methodology

Fiscal consolidation measures we use are constructed following the methodology described in Devries et al. (2011), which in turn builds upon the approach depicted in Ramey and Shapiro (1998), Ramey (2011), and Romer and Romer (2010). The measure of fiscal consolidation is based on "actions" rather than the actual budgetary outcomes, which would be affected by numerous factors determining the pace of economic growth. More precisely, only the measures announced and implemented with an aim to reduce the public debt level are recorded as a fiscal

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increase consumption. This, in turn, may lead to increased investment due to higher demand and better lending terms due to improved growth prospects (and potentially a push on collateral values). The direction of the impact on the tax side is ambiguous. If tax increases are expansionary because agents adjust their expectations so that the probability of disruptive future tax increases is deemed to be small (Blanchard, 1990), the lending terms will improve. If tax increases are contractionary, then demand decreases, implying a decline in investment and potential deterioration in lending terms. Note that the wealth effects channel does not imply a near-contemporaneous relationship between consolidation and cost of credit. Instead, there would be significant lags from wealth perceptions to cost of credit through investment and consumption. Given our focus on the short-run relationship, the wealth effects channel is not addressed in this paper.

consolidation. These measures could be spending cuts or tax hikes, and are expressed in percent of GDP at the time of their implementation.

This choice of focus on actions rather than actual outcomes reflects a major criticism directed at the usage of cyclically-adjusted primary balance (CAPB), in percent of GDP, as the measure of fiscal consolidation. In particular, CAPB may misestimate the cyclical adjustment component and, more importantly, may record a significant consolidation when there is a positive income growth shock or omit fiscal consolidation efforts to reduce debt levels when a recession hits and some of these efforts get offset by countercyclical stimulus measures. Therefore, as discussed in Devries et al. (2011) and Guajardo et al. (2011), the use of CAPB as the measure of fiscal consolidation may lead to a bias towards finding a positive association between GDP growth and the size of fiscal consolidation.[6] In contrast, the definition we use to identify fiscal consolidation focuses on discretionary decisions to cut budget deficits and reduce public debt levels, independently of the developments in economic activity. Thus, our measure of fiscal consolidation is exogenous, as further discussed in Romer and Romer (2010).

Consolidation episodes

The fiscal consolidation measure is calculated for 16 advanced economies (Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, Portugal, Spain, Sweden, and United Kingdom) using information from Devries et al. (2011), IMF Article IV Staff Reports, OECD Country Reports, and national budgets. At the end, 116 consolidation programs between 1990 and 2011 are considered. Table 1 shows the list of fiscal consolidation episodes. There have been efforts to reduce public debt levels in all of the 16 countries during our sample period. Some countries have been more active in these efforts than others (for instance, comparing Italy to Ireland). Also, the 1990s and 2010-11 have been more active than the early 2000s in terms of fiscal consolidation episodes. We also distinguish between small and large consolidations. Table 1 shows consolidations exceeding 1.5 percent of GDP, which are deemed to be large, in bold font. Of the 116 consolidations identified, 30 were large according to this cut-off point.

Details of fiscal consolidation packages

In addition to overall fiscal consolidation as a percentage of GDP, we distinguish between tax hike and spending cut components as a percentage of GDP. We also look at the details of each fiscal consolidation package. For tax hikes, we consider increases in corporate tax, personal income tax, VAT, property tax, and health care tax. For spending cuts, we consider government capital expenditure cuts, cuts in social security contribution and social benefits, wage cuts, personnel cuts, pension cuts, health care cuts and public investment cuts. These measures take a value of one if a fiscal consolidation package includes these measures, and are zero otherwise.

[6] For instance, Germany implemented fiscal consolidation measures amounting to 1.4 percent of GDP in 1982 but had to introduce countercyclical stimulus measures in response to the recession that year, leading to a CAPB increase of only 0.4 percent of GDP (Leigh et al., 2010).

Some consolidation measures can have a disproportionate effect on a number of sectors, such as the effect of consumption taxes on the retail sector. To consider these effects, we look at tax hikes related to (i) the banking sector such as increase in taxes on deposits, (ii) the retail sector such as consumption taxes, and (iii) the health care sector such as hikes in contributions to health care and increases in premiums for public health insurance. Among spending cuts, we look at spending cuts that affect the transportation sector, the health care sector, and the defense sector. Like the other fiscal consolidation details, these measures take a value of one if they are part of the consolidation package, and are zero otherwise.

Loan and Firm Characteristics

As a measure of cost of corporate credit, we use the natural logarithm of syndicated loan spreads, inclusive of all fees, measured by the difference between the rate charged on the loan and the relevant benchmark rate.[7] We include a large number of loan-level characteristics that are related to the cost of credit. Specifically, we include loan maturity, the natural logarithm of loan size, the purpose of the loan such as working capital, refinancing, general purposes, etc., the currency in which the loan is denominated, the type of the loan such as term credit, revolving credit, etc., whether the deal is investment grade or not, and whether the loan is given by a domestic bank or not.

A corporation's cost of credit is also related to a number of firm characteristics that determine the credit risk of a firm. In this regard, consistent with the related literature (see, for example, Chava et al., 2009), we include firm leverage (the ratio of total debt to total assets), profitability (net income over total assets), tangibility (tangible assets over total assets), growth opportunities (the ratio of market value of assets to book value of assets) and whether the borrower is rated or not.

Country Characteristics

In examining how cost of corporate credit varies with fiscal consolidations, it is crucial to control for country-level factors that have a bearing on both fiscal consolidations and corporate credit risk in order to reduce the risk of spurious correlations between fiscal consolidations and corporate loan spreads. We control for country-level variables found to be relevant in the fiscal consolidation literature (see, among others, Ardagna, 2009, and Guajardo et al., 2011, for more details). These controls are sovereign rating of countries (from Moody's), total government debt (from Reinhart and Rogoff, 2011, for the period between 1990 and 2010 and from OECD for 2011)[8], change in exchange rate and interest rate, level of interest rate, natural logarithm of real GDP, real GDP growth, stock market turnover, trade openness and inflation (from the IMF and

[7] The relevant benchmark used is the interbank lending rate agreed upon by the lenders in the syndicate. In most cases, LIBOR is the benchmark. Note also that the specification controls for the level of and change in short-term interest rates in the country, among other country characteristics. Hence, a change in spreads due to decline in the risk-free interest rate (and, hence, the benchmark rate) around fiscal consolidations would be captured by these variables.

[8] Results are robust to using information on sovereign debt levels from the IMF and the World Bank.

World Bank datasets), government stability, degree of law and order, and level of corruption (from the PRS Group's ICRG database).

For sovereign bond ratings, we convert each letter rating to a numeric one as follows: the highest rating, Aaa, takes the value of 21 and the value declines for each downward notch in rating, i.e., Aa1 corresponds to 20, Aa2 corresponds to 19, and so on and so forth. For total government debt, we include the general-government-debt-to-GDP ratio as a measure of the sovereign debt level. If general government debt data are not available, we use central government debt instead. The measure of government stability from the ICRG database assesses a government's ability to carry out its declared programs and its ability to stay in office. The index consists of government unity, legislative strength, and popular support subcomponents. The measure of law and order is an assessment of the strength of the legal system and popular observance of the law. The measure of corruption from the ICRG database includes two subcomponents: financial corruption that makes it difficult to conduct business effectively (e.g., bribes) and political corruption such as "quid pro quo" and suspiciously close ties between government and business. Higher values of these measures correspond to a more stable government, to a more orderly society, and to less corruption ("lack of corruption").

B. Methodology

Our empirical specification treats the yield spread on a loan as the dependent variable. Reflecting the richness of the dataset, the specification controls for a battery of loan, firm, and country characteristics. Specifically, we estimate the following regression equation:

$$LoanSpread_{ijkt} = \beta_1 Fiscal_{kt} + \beta_2 Country_{kt} + \beta_3 Loan_{jt} + \beta_4 Firm_{it} + c_k + n_i + y_t + \varepsilon_{ijkt} \qquad (1)$$

where *LoanSpread* is the difference between the rate charged for firm *i* (headquartered in country *k*) on loan *j* (issued in year *t*) and the benchmark rate as determined by the lender(s). *Fiscal* is the amount of fiscal consolidation in percent of GDP (or other measures related to fiscal consolidation such as spending cuts and tax hikes as percentage of GDP or details of the fiscal consolidation package) in country *k* in year *t*, *Country* is the set of country-level controls, *Loan* is the set of loan-level controls, and *Firm* is the set of firm-level controls. In addition to these time-varying controls, fixed effects for each country, industry, and year are included. Robust standard errors are clustered by country.

Our main variable of interest in the baseline is the contemporaneous total fiscal consolidation in percent of GDP. In separate regressions, we substitute this variable with more detailed measures of the fiscal consolidation effort in question. In particular, we distinguish between tax-based versus spending-based fiscal consolidations as well as the details of fiscal consolidation packages such as taxes on consumption, corporate income, personal income, property, and health care, and cuts in government transfers (social benefits, unemployment benefits), government consumption (health care, pension, personnel), public investment, and social security contributions.

There are three main reasons as to why any association we find between our measures of fiscal consolidation and loan spreads is likely to indicate an "effect" of fiscal consolidation on the cost of corporate credit, rather than the other way around. First, the fiscal consolidation measure we

use is exogenous (Romer and Romer, 2010; Devries et al., 2011) in the sense that it records discretionary changes in fiscal policy aimed at reducing government debt and, therefore, it is a response to past conditions rather than the current ones. Second, the use of loan-level data introduces a certain degree of separation such that it is more difficult to argue that the spread on a particular loan would lead the decision to engage in fiscal consolidation compared to the case where an aggregate measure of cost of credit is used. Third, any difference in results for different sectors when considering consolidation measures that are applicable to certain sectors could be interpreted as a "falsification test".[9] If the introduction of the measure coincides with a general increase in spreads in the syndicated loan market attributable to other factors, we would expect to see spreads increase in all sectors. As the results below show, this is not the case with regard to tax hikes: tax hikes in a given industry are associated with an increase in spreads for the firms operating in that industry but do not have a statistically significant relationship with spreads for the firms in other industries. Spending cuts in general do not have a significant effect on loan spreads.

That said, we should note that even though we control for a battery of firm, loan and country conditions, it is still possible that there can be a latent factor driving both the fiscal consolidation decisions and the corporate loan spreads. We include an extensive list of controls to alleviate this concern but we cannot totally eliminate it.

IV. Empirical Findings

A. Descriptive Statistics

Table 2 shows the summary statistics for the dataset on which Equation (1) is estimated. Average fiscal consolidation amounts to around 0.3 percent of GDP with a maximum of 4.5 observed for Italy in 1993.[10] Tax hikes and spending cuts have comparable distributions in the sample, but spending cuts are relatively larger, with an average of 0.2 percent of GDP compared to 0.1 percent of GDP for tax hikes. Spending cuts are also more severe at the maximum than tax hikes, with a spending cut of 3.7 percent of GDP observed for Finland in 1993, and a tax hike of 2.4 percent of GDP observed for Italy in 1995.

With respect to macroeconomic characteristics, the sample exhibits a fair degree of variation. Sovereign credit ratings vary between Baa1 and Aaa, with an average of Aaa. The lowest value, Baa1, is observed for Ireland in 2010.[11] There is considerable variation in sovereign debt levels.

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[9] See Galiani et al. (2005), Basker (2006), and Gruber and Hungerman (2008), among others, for examples of falsification tests.

[10] There is one episode that is actually larger, namely, Ireland's consolidation amounting to 4.74 percent of GDP in 2009. Due to data gaps, this episode is dropped in the regressions.

[11] The credit rating of Ireland was reduced to Ba1 and Portugal's rating was reduced to Ba2 in 2011. However, our dataset does not include any observations that have all the data items including loan spreads in these two countries in 2011. Related to this issue, in Section IV.F, we consider the possibility of a sample selection bias stemming from the fact that we have data only on the firms that have issued loans. As to be discussed later, the results do not suffer from a sample selection bias.

The average government debt is around 67 percent of GDP, with the minimum around 5 percent observed for Australia in 2007 and 2008, and the maximum above 200 percent of GDP observed for Japan after 2009. There is also wide variation in short-term interest rates, where lower than 1 percent rates are observed for Japan after mid-1990s and in Sweden in 2009, and above 15 percent is observed for Italy, Spain, Portugal, and Australia from the mid-1980s to the early 1990s. On average, exchange rates change by 2 percent and interest rates change are around 15 percent. Stock market turnover variation indicates that both liquid and illiquid markets are represented in the sample. Given that the sample consists of advanced economies, average real GDP is high. Trade openness on average is 65 percent of GDP. The average inflation in the sample is around 2 percent (Japan has deflation starting in the early 1990s). As for the country-level governance variables, we consider the indices for government stability, law and order, and lack of corruption. Lowest levels of government stability are observed for Italy and Spain in the late 1980s and the early 1990s, and for a number of European countries such as Ireland, France, Italy and Spain during the eurozone crisis in 2010-11. Law and order and lack of corruption indices mostly have high values, reflecting better functioning institutions in advanced economies.

In terms of loan characteristics, the average loan spread is around 134 basis points. Around 70 percent of the loans are investment grade, 80 percent are issued in a major currency (Euro, Japanese Yen, British Pound, or the U.S. Dollar), 30 percent are given to borrowers with a credit rating, and 30 percent are extended by domestic banks. In other words, majority of loans are investment grade, in major currencies, and given to nonrated borrowers. The average loan in the sample matures in 4 years. The size of a loan is around US$ 790 million on average, varying between US$ 250 thousand and US$ 45 billion. The largest amount of US$ 45 billion was launched by the Belgian brewer InBev to buyout Anheuser-Busch in 2008. The loan had a maturity of around 3 years and spread of 200 basis points above LIBOR, inclusive of all fees. This example demonstrates the ability of large corporations to issue jumbo loans during adverse economic conditions such as the recent financial crisis. Regarding firm characteristics, we observe that the sample has both large and small firms. Similarly, the sample consists of both unlevered and levered firms, firms with low and high growth opportunities, and firms with and without tangible assets. Thus, there is reasonable variation in the sample across firm characteristics as well.

B. Baseline Regressions

We start the analysis by examining how syndicated loan spreads vary with fiscal consolidations as in Equation (1), where fiscal consolidation is measured as a percentage of GDP based on the announced and implemented government actions to reduce sovereign debt as discussed in Section III.A. Table 3 presents the results. In Column 1, we include only the country-, loan- and firm-level controls. In Column 2, we introduce the measure of fiscal consolidation in percentage of GDP in addition to all the controls in Column 1. We also allow for a differential effect of large fiscal consolidations, defined as those exceeding 1.5 percent of GDP, in Column 3.[12]

[12] As a robustness check, we estimate the regressions shown in Columns 2 and 3 by dropping one country at a time. The results are not reported for the sake of brevity but are available upon request. The coefficients remain broadly the same, indicating that the findings are not driven by a single country.

Syndicated loan spreads are positively associated with fiscal consolidations, as shown in Column 2, suggesting that lenders price in the recessionary effects of fiscal consolidations in loans, whereas the expectation of better economic performance in the future or reduced default risk in sovereign debt does not seem to be weighed in as strongly.

It has been argued in the literature that large fiscal consolidations project positive expectations about future economic output and also are credible in reducing sovereign default risk (see, for instance, Giavazzi and Pagano, 1990, and Alesina and Perotti, 1997). To capture the potential differential effect of large fiscal consolidations, we introduce the interaction of our fiscal consolidation measure with an indicator variable that takes the value of one if the ratio of fiscal consolidation to GDP is above 1.5 percent.[13] The result is in Table 3, Column 3. If fiscal consolidations are above 1.5 percent of GDP, the positive relation between loan spreads and consolidations is indeed reduced considerably.

In addition to being statistically significant, these baseline results are also economically meaningful. Evaluated at the average spread of 134 basis points, the coefficients in Table 3, Column 3 imply that an additional 1 percent of GDP in fiscal consolidation is associated with an 11 percent increase in spreads, which is in the magnitude of around 15 basis points. For a typical loan in the sample (defined by the average loan size of around US$ 800 million and the average term of 4 years), this increase in spreads corresponds to around US$ 5 million in additional borrowing costs over the life of the loan. If the consolidation is large, however, the increase in spreads is only 2 basis points. Thus, additional financing costs are negligible when consolidations are large.

This finding on the differential effect of large fiscal consolidations can be interpreted as evidence that both Keynesian recessionary effects channel and expectations channel are in play. Lenders' emphasis on recessionary effects and/or lower credibility of fiscal consolidation in creating a better economic outlook is mitigated substantially if fiscal consolidations are large enough to reduce default risk in sovereign debt and bring about positive expectations about economic performance in the future. This finding is also consistent with the notion that large consolidations may be considered to be less likely to be reversed in the future. Hence, they tend to have a stronger permanent component than small consolidations, which can be viewed as more temporary. Further evidence that expectations matter and there is more than just the aggregate demand effect comes from the fact that we do control for real GDP growth, firm profitability, and firm growth opportunities in our baseline and still find the effects of fiscal consolidation to be positive on average.

In Table 3, Column 4, we also introduce an interaction of fiscal consolidation and large fiscal consolidation variables with an indicator variable that takes the value of one for 2010-11 to capture any change in the relationship due to the recent sovereign debt crisis in Europe. The interaction variables are not significant and the coefficients on fiscal consolidation variables are

[13] This threshold follows the convention in the recent literature. See Alesina and Ardagna (2010), Leigh et al. (2010), and references therein.

comparable to those reported in Column 3. These results suggest that the relation between loan spreads and fiscal consolidation measures is not different during the eurozone crisis.

Regarding firm and loan characteristics, and other country-level variables, Table 3 shows that both loan- and firm-level variables are major determinants of loan spreads. Among country-level factors, loan spreads decrease with increasing interest rates, in line with Longstaff and Schwartz (1995) and Leland and Toft (1996), but the coefficient is very small. Spreads also decrease with real GDP growth and the degree of law and order. These findings indicate that lenders price in the rapid growth performance in an economy while pricing loans and also reduce spreads where the legal system is functioning well. One explanation for the lack of a significant association for the other country variables is that the regressions already include country and time effects. Among loan characteristics, being investment grade, the size of the deal, and foreign currency denomination have a statistically significant relationship with loan spreads. Investment grade loans have relatively lower default risk, which is also reflected in loan pricing. Larger loans are associated with lower spreads. Since there are some fixed costs in loan originations, these fixed costs are likely to be lower for larger loan deals. Finally, loans denominated in a currency other than the borrower's own currency carry a larger risk premium, which is reflected in the higher spread on these loans. Among firm characteristics, size, growth opportunities, and tangibility are associated with lower loan spreads, whereas leverage is positively related to spreads. Large firms have less information asymmetry and more collateral. Therefore, they get lower rates from lenders. Our results also suggest that firms with growth opportunities are considered to be lower-default-risk customers by lenders. Firms with more tangibility have more to offer as collateral and thus have lower spreads. Lastly, increasing debt levels in a corporate capital structure increases the default risk of a firm, which is reflected as higher loan prices for firms with high leverage.

C. Firm and Loan Characteristics

The baseline regressions have demonstrated a positive association between loan spreads and fiscal consolidations, which is mitigated for large consolidations. We next examine whether this finding is driven by certain firm and loan characteristics. In this regard, we differentiate between small and large firms, firms with bond ratings and without bond ratings, firms that issue ADRs and those that do not, firms that go to external markets more often and those that do not, and finally firms that have revenues from abroad and those that do not. The results are in Table 4.

Although reduction in sovereign default risk through consolidations would affect all firms by reducing the credit risk arising from potential sovereign defaults, recessionary effects of fiscal consolidations may be more severe for small firms compared to large firms as small firms are more subject to information asymmetry and are more financially constrained (see Fazzari et al., 1998, and Hadlock and Pierce, 2010). In this regard, we examine fiscal consolidations with respect to firm size in Table 4, Panel A. We consider the firms that are above the median firm size in a given country as large firms, and those that are below the median as small firms. The results show that indeed the positive association between loan spreads and fiscal consolidations are observed for small firms, whereas large firms are not affected. When we differentiate between normal and large consolidations, the adverse relation between fiscal consolidation and loan spreads is reduced for large consolidations, i.e., those that are above 1.5 percent of GDP.

These findings are in line with the evidence in the baseline regressions. While the recessionary effects of fiscal consolidations are priced in for small firms, these adverse effects are mitigated substantially for large consolidations as consolidations become more credible in reducing sovereign debt and thus creating positive expectations about the economic outlook.

For firms that do not have bond ratings, the main source of debt financing is bank loans as they do not have access to public bond markets. If fiscal consolidations are expected to have recessionary effects in the short term, these effects are likely to be more pronounced for firms with limited alternative sources of financing. Thus, firms without bond ratings are likely to be the ones that will be affected. A similar argument applies for firms without ADRs. Corporations that have ADR issues have access to global markets, and therefore have alternative sources of funding regardless of the developments in the domestic economy. In this regard, in Panels B and C of Table 4, we distinguish the firms in the sample in terms of bond ratings and ADRs. The results are in line with our expectations. Fiscal consolidations have adverse effects on borrowing costs of firms that have limited alternative sources of financing. When consolidations are large, this effect is reduced substantially for firms without bond ratings but the reduction is not statistically significant for firms without ADRs.

Next, we differentiate the sectors that use external financing markets more often than those that do not using Rajan and Zingales (1998) methodology.[14] Banks have more information about firms and sectors that use external markets frequently whereas information asymmetry is worse for those that do not go to external markets that often. If the recessionary effects of fiscal consolidation are priced in loans as the baseline regressions suggest, then lenders are more likely to incorporate this effect when pricing loans to firms on which they have relatively less information, i.e., firms that do not use external markets frequently. We test this hypothesis in Panel D of Table 4. Similar to small firms and firms with limited access to alternative financing resources, firms that do not use external markets often are the ones that experience an increase in loan spreads with fiscal consolidations.

Finally, we look at domestic firms and multinational firms separately. The effects of fiscal consolidation would be more pronounced for domestic firms since any development in the domestic economy, which is not smoothed out through other activities in foreign markets, has a direct effect on these firms. In this regard, we consider firms with nonzero foreign sales and nonzero foreign income as multinational firms, and those without foreign sales and income as domestic firms. The results are in Panel E of Table 4. Borrowing terms of domestic firms are adversely associated with fiscal consolidations unless fiscal consolidations are large. These findings indicate that fiscal consolidations have recessionary effects on domestic firms but these effects are mitigated substantially if consolidations are large enough to be credible or to create

[14] We use COMPUSTAT data for the period 1990-2009 to determine which industries in the U.S. are financially dependent on external financing as in Rajan and Zingales (1998). We measure financial dependence as capital expenditure minus cash flow from operations over capital expenditures. Cash flow from operations is defined as operating income before depreciation plus decrease in inventories, decrease in receivables and increase in accounts payable. We designate industries above this median as being financially dependent, and then match them with our international sample. The mapping is comparable to Rajan and Zingales (1998): Tobacco is one of the least financially dependent industries whereas the pharmaceutical industry is one of the most financially dependent.

positive expectations. On the other hand, multinational firms do not observe any change in borrowing costs during fiscal consolidations as they are better shielded from developments in the domestic economy.

These findings have both statistical and economic significance. Consider the regressions in Table 4, Panel A, Column 2, where consolidations above 1.5 percent of GDP are distinguished as being large. For small firms, increasing fiscal consolidation by 1 percent of GDP increases loan spreads by 17 percent. For the average spread of 132 basis points in the small-firm sample, this corresponds to a 23 basis-point increase in loan spreads. For the average deal value of around 600 million dollars in the small-firm sample, this increase means close to US$ 1.4 million worth of additional financing costs in a year. However, if fiscal consolidations are large, i.e., above 1.5 percent of GDP, then the increase in spreads is only 4 percent, translating to 6 basis points. Hence, if fiscal consolidations are large enough so that they are credible in being successful in improving the economic outlook and reducing default risk, these favorable effects substantially mitigate the adverse effects of consolidation. We obtain similar findings for firms without bond ratings, for firms that do not have access to global markets through ADRs, for firms that do not tap into external markets often, and for domestic firms. In these cases, the average spread is 135 basis points for firms without ratings and domestic firms, 139 for firms without ADRs, and 137 for firms that do not use external markets often. Given this subsample mean spreads, we consider the significance of additional fiscal consolidation in the magnitude of 1 percent of GDP. Fiscal consolidations are associated with a 12 percent (16 basis-point) increase in spreads for firms that do not have bond ratings, a 14 percent (19 basis-point) increase in spreads for firms without ADRs, a 19 percent (25 basis-point) increase in spreads for firms that do not go to external markets often, and a 17 percent (23 basis-point) increase in spreads for domestic firms. When consolidations are large, however, the increase in spreads is limited to less than 8 percent (or 2 basis points for not-rated firms, 7 basis points for firms without ADRs, 11 basis points for firms that are not external finance dependent, and 1 basis point for domestic firms).

Overall, these findings show that the effects of fiscal consolidations are asymmetric across firms. Firms that are large, multinational, and with alternative financing resources do not experience a change in the cost of credit with fiscal consolidations. On the other hand, small firms, domestic firms, and those with limited financing resources are prone to higher borrowing costs due to expected recessionary effects of fiscal consolidations unless expectations for better future economic growth and credibility in reducing sovereign debt are signaled through large consolidations.

D. Country Conditions

A number of studies examine how country conditions can affect the relation between fiscal consolidations and economic growth (Leigh et al., 2010; Guajardo et al., 2011; Ardagna, 2009). Using aggregate data, Guajardo et al. (2011) find that fiscal consolidations are contractionary, but this effect is reduced if consolidation is accompanied by interest rate cuts and devaluations. Spending cuts are less contractionary than tax hikes but also they are more often associated with monetary easing. In addition, if sovereign debt is high, contractionary effects of fiscal consolidation are smaller. This last finding is also in line with the credibility channel discussed in Alesina and Perotti (1997). Large fiscal consolidations improve credibility of the government

in meeting debt obligations in countries with high sovereign debt and, thus, can have expansionary effects on the economy. Similarly, Ardagna (2009) documents that interest rates decrease during fiscal consolidations and the decrease in interest rates is larger when initial public debt levels are high.

To examine whether country conditions matter in loan pricing during fiscal consolidations, we look at the behavior of spreads around consolidations that happen under different conditions with respect to sovereign debt levels, government size, monetary policy, exchange rate regime, currency depreciation, and government stability. The results are in Table 5.

In Columns 1-2, we split the sample by the level of sovereign debt to assess the relation between loan spreads and consolidations when government debt levels are high. This analysis allows us to observe whether the adverse relation between fiscal consolidations and loan spreads found in the baseline regressions disappears when government debt is low and, hence, fiscal sustainability is less of a concern for lenders. Similarly, one could argue that consolidations that happen when government activities constitute a larger portion of the overall economic activity may have more profound effects. We explore this possibility by splitting the sample with respect to the median government size, where government size is measured by the ratio of total expenditures to GDP, in Columns 3-4.[15] The results indicate that fiscal consolidations are not relevant for loan spreads when sovereign debt is low. In contrast, when debt is high, loan spreads increase with consolidations unless the consolidations are large. The results are similar but weaker when we compare large governments to small governments: consolidation is positively associated with spreads in both cases but the offsetting effect of large consolidations is present only when the government is large. Thus, the level of public debt matters in loan pricing during fiscal consolidations while government's share in economic activity is relevant for the operation of the credibility channel.

In Columns 5-6, we look into the potential role played by monetary policy. We first calculate the monetary policy stance based on the discrepancy between the actual policy rates and the rate implied by a simple Taylor rule and, then, split the sample according to these Taylor residuals. While coefficients under both tight and loose monetary policies have the same signs as those in the baseline specification (Table 3, Column 3), the overall effect of large consolidations is negative when the monetary policy stance is loose but positive when it is not (the sum of the coefficients is 0.003 in Column 5, compared to -0.126 in Column 6). Hence, the results indicate that accommodative monetary policy helps shield the economy from the short-term pain of fiscal consolidation if the consolidations are large enough to create positive expectations about future economic outlook.

The regressions in Columns 7-8 compare fixed and flexible exchange rate regimes.[16] In relatively flexible exchange rate regimes, fiscal consolidations do not have a significant relation

[15] In robustness checks not reported, we also use total revenues in percent of GDP to measure government size. The results are comparable to those reported.

[16] We use the fine classification of Reinhart and Rogoff (2004) to categorize exchange rate regimes in terms of their flexibility. The categories are as follows: 1 – no separate legal tender, 2 – preannounced peg or currency board

(continued…)

with the cost of credit. In relatively fixed exchange rates, however, fiscal consolidations are positively associated with spreads unless consolidations are large enough to help mitigate the adverse effects. In other words, if the macroeconomic policy framework has the flexibility to provide room for faster external adjustment, corporate debt markets are shielded from the effects of costly and slower internal adjustment. For fixed exchange rate regimes, by contrast, adverse effects of fiscal consolidations on firms are priced in the loans for small consolidations. When consolidations are large enough to be credible, however, expectations of favorable economic conditions and reduced sovereign default risk reverse this adverse effect.

Following on the role of exchange rates, in Columns 9-10, we look at how the findings change depending on whether there is currency depreciation or not. Devaluing their currency or letting it depreciate help countries to grow faster through exports and as a result may safeguard the firms from the adverse effects of fiscal consolidations in the short term. The results support this argument. We find that loan spreads increase with fiscal consolidations in countries where there is no currency depreciation, although the effect is mitigated for large consolidations. In countries that let their currency depreciate, however, fiscal consolidations do not have any significant relationship with the cost of corporate credit. These support the notion that creditors consider fiscal consolidations accompanied with depreciations to have less recessionary effects, in line with the argument that these devaluations can boost the economy by fostering exports.

Lastly, we examine if the political environment has a bearing on how lenders price the loans in relation to fiscal consolidations in Columns 11-12. Alesina et al. (2012) find that strong and popular governments use their political capital to implement fiscal consolidations, whereas weak governments tend to thwart fiscal consolidations to avoid electoral defeat. Our results suggest that, indeed, the ability to carry out fiscal consolidation matters. In particular, the sum of coefficients in Column 12 is negative and significant while the sum of coefficients in Column 11 is virtually zero. Hence, large fiscal consolidations create positive expectations about future economic outlook and reduce cost of credit when the lenders believe that government is stable and thus can carry out successful fiscal consolidations.

Overall, these results suggest that large consolidations accompanied by more flexible macroeconomic policy frameworks and political stability are successful in shielding corporations from the adverse effects of fiscal consolidations on the cost of credit. These findings are likely to be more relevant for small firms, firms with limited alternative sources of financing, and domestic firms, as documented in Section IV.C.

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arrangement, 3 – preannounced narrow horizontal band, 4 – de facto peg, 5 – preannounced crawling peg, 6 – preannounced narrow crawling band, 7 – de facto crawling peg, 8 – de facto narrow crawling band, 9 – preannounced wide crawling band, 10 – de facto wide crawling band, 11 – moving band, 12 – managed floating, 13 – freely floating, 14 – freely falling, 15 – dual market. In the regressions, categories 1 through 8 are treated as fixed and categories 9 and above are labeled as flexible. In robustness checks not reported for the sake of brevity, we use the coarse classification. The results remain virtually unaltered.

E. Composition of Fiscal Consolidation Packages

Fiscal consolidation packages generally include both spending cuts and tax hikes. Does the composition of the fiscal consolidation packages matter for the cost of corporate credit? While there is a vast literature on the effects of composition on economic output, to the best of our knowledge, there is no study that looks at this issue from the perspective of the cost of corporate credit. Among studies that look at economic output, the evidence is mixed on the effects of spending cuts versus tax hikes. On the one hand, Alesina and Perotti (1997) and Ardagna (2009) suggest that spending-cut-based fiscal consolidations are more likely to be successful than packages that rely on tax hikes. Similarly, using sovereign-debt-reduction-driven fiscal consolidations that are based on announced and implemented government actions, Leigh et al. (2010) find that spending cuts are less contractionary than tax hikes, but also that the former tend to be associated with monetary easing more often. On the other hand, using historical records to examine legislated tax changes, Romer and Romer (2010) find that tax increases aiming at deficit reduction do not lead to lower output. This finding is consistent with the argument that tax increases for deficit reduction purposes can create positive expectations that future taxation will be lower (Blanchard, 1992), and such expectations can lead to lower interest rates and increase output. In other words, interest rates respond more strongly to deficit-driven changes in taxes due to increased confidence.

Using aggregate data and cyclically-adjusted primary balance as the measure of fiscal consolidation, Alesina and Perotti (1997) further analyze the macroeconomic consequences of fiscal consolidations. They find that unsuccessful consolidations are those where there are cuts in capital spending but government wages are not touched. Also, in unsuccessful consolidations, there are higher taxes across the board, including taxes on households and social security contributions. The reason is the strong effect on unit labor costs. Successful consolidations, by contrast, are those where taxes on corporations and indirect taxes increase but there are no hikes on taxes on households and social security contributions. This finding is perhaps related to the expansion of the tax base rather than the increase per se. Ardagna (2009), looking at the composition of fiscal measures by focusing on the cyclically-adjusted-government wages-to-GDP and primary-expenditure-to-GDP, provides evidence complementing those in Alesina and Perotti (1997). In particular, she finds that cuts in government wages and government expenditures are negatively associated with interest rates. Arnold et al. (2011) look at revenue-neutral tax changes and, contrary to Alesina and Perotti (1997), find that corporate tax hikes are the measures that are most negatively associated with output growth.

Given the mixed evidence on the effects of spending cuts and tax hikes on the economy, and the lack of evidence on how the composition of the consolidation package relates to the cost of corporate credit, we explore what our database reveals on these issues in Table 6. In Columns 1 and 2, we include spending cuts and tax hikes as a percentage of GDP separately, and in Column 3, we put them together.[17] Neither tax hikes nor spending cuts have a statistically

[17] It is true that fiscal consolidation often involves a combination of spending cuts and tax hikes and, hence, including either of these correlated measures alone in the regressions would not be appropriate; however, we do show the results obtained by doing so for the curious reader.

significant association with the cost of corporate credit, although the coefficients are positive (Columns 1, 2 and 3). Therefore, the results do not convey a robust adverse association between these measures and the cost of corporate credit.

We then examine specific tax hike and spending cut measures by including an indicator variable that takes a value of one if any given measure is part of the consolidation package. We include spending cut measures, tax hike measures, and both types of measures together. The results are shown in Columns 4, 5, and 6, respectively. The coefficient on corporate taxes is large and highly significant, suggesting that corporate tax hikes are among the major drivers of the positive association between loan spreads and fiscal consolidations. Conversely, we observe that lenders consider social benefit cuts positively and reflect it as lower costs in bank loans. This finding is consistent with several arguments. The reduction in social benefits is a politically sensitive measure and, hence, provides credibility for the fiscal consolidation package, increasing the odds for success in the long term (Alesina and Perotti, 1997). Also, reduction in social benefits may increase corporate profitability as long as these cuts are reflected on the corporate cost side. Therefore, lenders price in this projected increase in profitability and reduce loan spreads (Alesina et al., 1999). Finally, hikes in VAT also have a negative association with loan spreads. Although VAT hikes could affect consumer demand and, thus, corporate profitability adversely, fiscal consolidation measures that involve less "creative accounting" are considered as more credible (Alesina and Perotti, 1997).

Next, we look at the relation between loan spreads and (i) consumption-related tax hikes on the retail sector, (ii) hikes in bank-related taxes on the banking sector, (iii) health-related tax hikes and spending cuts on the health care sector, and (iv) spending cuts in the transportation and defense sectors. For example, when taxes that affect consumers and retailers (such as VAT, wholesale tax, and other consumption taxes) are part of the fiscal consolidation package, then consumption tax hikes indicator takes a value of one, and is zero otherwise. This indicator is interacted with the retail industry indicator to observe the effect of this hike on the retail sector in comparison to the other sectors. Similar interaction variables are constructed for other sector-related tax hikes and spending cuts. The results are in Table 7.

The evidence suggests that loan spreads increase in the sector that faces tax hikes while spending cuts in a given sector do not have similar effects. Thus, lenders price in the possibility of reduced corporate profitability due to increasing taxes when they are lending to firms in those sectors. But spending cuts in a given sector do not necessarily adversely affect corporations in that sector. In fact, reduced government spending can crowd in private investment in a given sector (Alesina and Ardagna, 1998). In order to confirm that we are indeed capturing cross-sector exposure to specific measures rather than spurious correlations, we repeat the exercise with interaction variables generated by randomly matching the measures and the sectors. The interaction variable does not have a statistically significant coefficient in these iterations (results are available upon request). As a whole, these results are in line with those in the literature that lean toward finding less contractionary effects for expenditure-based fiscal consolidation packages (Alesina and Perotti, 1997; Ardagna, 2009; Leigh et al., 2010).

F. Alternative Specifications and Robustness

In our sample, we do not observe firms that are not able to obtain loans or those that do not seek to obtain loans due to their financial position or due to the economic outlook in our sample. Consequently, the change in the average loan spreads may reflect the change in the composition of the sample rather than the fiscal consolidation decision.

In order to address concerns about such a sample selection bias, we re-estimate our baseline regressions using the Heckman (1979) selection model. We assume that all firms in the Worldscope database from the 16 countries covered in our study represent the universe from which our sample is drawn. We first estimate an equation where the probability of loan issuance takes the value of one if a given company issues a loan in a given year. We control for firm characteristics, country-level factors, industry factors, and country and year fixed effects. As an instrument, we consider whether a firm is external finance dependent following the methodology in Rajan and Zingales (1998). Firms that tap into external markets more often should be more likely to issue loans and, hence, appear in our sample. Whether the firm is dependent on external finance or not does not necessarily have a direct effect on loan spreads. Then we estimate the spread equation in a second step, correcting for the bias. The results are shown in Table 8, Columns 1-4. The coefficient on the fiscal consolidation measure is positive and significant, and is rather close in magnitude to the one obtained in the baseline (compare Table 8, Column 1 to Table 3, Column 2). The first-step results shown in Table 8, Column 2 reveal that the coefficient on the instrument, external finance dependence, is strongly positively associated with the issuance decision. But the coefficient on lambda (inverse Mill's ratio) is not significant, suggesting that results are not driven by sample selection bias.

We also consider an alternative universe of firms, namely, only those firms that have issued at least one loan in our sample period (rather than the whole universe of Worldscope firms). This sample helps us address the sample selection bias that may arise from the possibility that certain firms base their decision to tap into syndicated loan markets on the fiscal consolidation efforts. If a firm that normally has access to loans is not able to issue a loan or prefer not to issue a loan due to a fiscal consolidation package being in place, then there will be a sample selection bias that arises from the consolidation itself. We re-estimate the Heckman model using this alternative universe of firms in Table 8, Columns 5-8. The coefficient on the fiscal consolidation measure as well as that on the large consolidation measure are again comparable to that in the baseline (Table 3, Column 3) and the coefficient on lambda is not significant. These results alleviate the concern that selection bias may be driving our results.

Next, we consider several alternative specifications. We start by adding the lagged value of our fiscal consolidation measure. Then we include the lagged value of real GDP growth as an additional control variable. We also replace the Moody's sovereign credit rating with that from the Institutional Investor.[18] The coefficients obtained in these alternative specifications are

[18] Institutional Investor credit ratings are used as a proxy for perceived future sovereign default risk in Reinhart et al. (2003), Eichengreen and Mody (2004), and Guajardo et al. (2010). Note that these credit ratings are reported as indices with higher values indicating lower sovereign default probability.

shown in Table 9, Columns 1-3. The coefficient we obtain on the fiscal consolidation measure in each of these specifications is close in magnitude to the one in the baseline specification.[19]

Finally, we check the robustness of our baseline findings to the definition of large fiscal consolidation we considered in our analyses. In particular, recent literature following Alesina and Perotti (1997) and Alesina and Ardagna (1998, 2010) define large fiscal consolidation episodes as those exceeding 1.5 percent of GDP in a given year or exceeding 1 percent of GDP in two consecutive years. So we extend our definition of large fiscal consolidations (which already is identical to the first criterion) by applying the second criterion in addition to the first. We still get a positive and statistically significant coefficient on the fiscal consolidation measure. In magnitude, this coefficient is close to the one in the baseline (compare Table 9, Column 4 to Table 3, Column 3). The coefficient on the large consolidation variable also has the same sign and is comparable in magnitude, albeit no longer statistically significant at conventional levels.

A large number of studies in the literature use the change in the cyclically-adjusted primary balance in percentage of GDP (CAPB) in identifying fiscal consolidations (see, for instance, Alesina and Perotti 1997; Alesina and Ardagna, 2010). As discussed before, this measure has been criticized for not being necessarily exogenous (Romer and Romer, 2010). Nevertheless, we examine whether similar findings to ours hold with this approach. Furthermore, we separately consider the intersection of the episodes identified by the CAPB-based approach and action-based approach we use in our study. As seen in Table 9, Columns 5-6 and 9-10, there is no significant relation between the CAPB-based consolidation measure and the spreads. The reason could be the possible endogeneity problems that arise from this measure in the sense that the results do not reflect the change in spreads due to discretionary changes in the budget but other factors that improved the budget. Indeed, when we adopt an IV approach and instrument the CAPB-based consolidation measure with the action-based measure, as in Guajardo et al. (2011), we again find a positive association between spreads and fiscal consolidations unless consolidations are large enough to signal credibility and create positive expectations about economic outlook (Table 9, Columns 7-8 and 11-12).

V. CONCLUSIONS

Fiscal consolidation to bring down the high public debt levels in many advanced economics, legacy of the global financial crisis, is a subject of current economic and financial discussions. Austerity proponents call for significant budget cuts arguing that lenders will price in the reduction in default risk and decrease the borrowing costs for the private sector, boosting credit availability and investment. Others caution against the potential recessionary effects of such consolidations on economic growth in the short run. There is no consensus on which aspects dominate. Most of the existing studies look at these issues using aggregate data and mainly focus on economic growth. There is very limited research using firm-level data, and, to the best

[19] In yet another alternative specification, we drop the real GDP growth and profitability variables. The reason for this exercise is that these two variables may be acting as mediating variables capturing the transmission from consolidation to aggregate demand to spreads. The results, not reported for the sake of brevity, are comparable.

of our knowledge, ours is the first one that looks at the cost of corporate credit in relation to fiscal consolidations using detailed loan- and firm-level data.

We examine how corporate loan spreads vary around major fiscal consolidations aimed at reducing government debt. Using a new dataset on the details of fiscal consolidation efforts in the past 22 years in 16 advanced economies and syndicated loan market data, we find that fiscal consolidations are associated with higher spreads, especially for small firms, domestic firms, and for firms that have limited access to alternative financing resources. This adverse effect is mitigated substantially when fiscal consolidations are large. Furthermore, this short-term pain turns into a gain as lenders reduce the cost of credit when large consolidations are accompanied by more flexible macroeconomic policy frameworks and implemented in a stable political environment. Among measures of fiscal consolidations, corporate tax hikes are positively related to spreads. Further, tax hikes related to certain sectors are associated with higher spreads in that sector, whereas spending cuts do not have any significant effect on the related sectors.

Overall, our evidence suggests that lenders price in the potential recessionary effects of fiscal consolidations, especially if they do not find the consolidation efforts credible, and differentiate across firm- and industry-related characteristics when doing so. The anticipated reduction in borrowing costs for the private sector due to expectations and credibility channels are in play, particularly for large consolidations and more so if accompanied with accommodating macroeconomic policy and carried out by stable governments.

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Appendix

Appendix Table 1. Variable Definitions and Data Sources

Variable	Definition	Source(s)
Main Variables of Interest		
LogSpread	Natural logarithm of syndicated loan spread, inclusive of all fees, measured as the difference between the rate charged on the loan and the relevant benchmark (in basis points), where the benchmark is the interbank lending rate agreed upon by the lenders in the syndicate	Dealogic
FiscalConsolidation	Fiscal consolidation measures announced and implemented with an aim to reduce the public debt level and expressed in percent of GDP	Devries et al. (2011) and authors' calculations based on IMF and OECD reports and national budgets
FiscalConsolidation > 1.5% GDP	Dummy variable that takes the value of 1 if FiscalConsolidation exceeds 1.5 percent of GDP	Devries et al. (2011) and authors' calculations based on IMF and OECD reports and national budgets
TaxHikes	Fiscal consolidation accomplished through increases in revenues (in percent of GDP)	Devries et al. (2011) and authors' calculations based on IMF and OECD reports and national budgets
SpendingCuts	Fiscal consolidation accomplished through decreases in expenditures (in percent of GDP)	Devries et al. (2011) and authors' calculations based on IMF and OECD reports and national budgets
Country Variables		
SovereignRating	Indicator for sovereign default risk ranging from Aaa to C, converted to numerical values by assigning the value of 21 to the highest rating (Aaa) and decreasing the assigned value by 1 for each notch down	Moody's
SovereignDebt	General government debt outstanding (central, if general is not available), in percent of GDP	Reinhart and Rogoff (2011) and OECD
ExchangeRate	Real effective exchange rate (basket of currencies per local currency), index	IMF International Financial Statistics
InterestRate	Short interest rate	OECD
LogRealGDP	Natural logarithm of real GDP	World Bank Development Indicators
RealGDPGrowth	Annual change in real GDP	World Bank Development Indicators
StockMarketTurnover	Total number of shares traded during the period divided by the average market capitalization for the period (average of the end-of-period values for the current period and the previous period)	World Bank Development Indicators
TradeOpenness	Sum of exports and imports, in percent of GDP	IMF International Financial Statistics
Inflation	Annual change in the consumer price index	IMF International Financial Statistics
GovernmentStability	Index with higher values indicating more stable governments	PRS Group's International Country Risk Guide
Law&Order	Index with higher values indicating stronger and impartial legal systems and better popular observance of the law	PRS Group's International Country Risk Guide
LackofCorruption	Index with higher values indicating less corrupt systems	PRS Group's International Country Risk Guide
GovernmentSize	Total government revenues to GDP	OECD
InstitutionalInvestorCreditRating	Index with higher values indicating lower sovereign default probability	Institutional Investor
Loan Variables		
InvestmentGrade	Dummy = 1 if the deal is investment grade	Dealogic
RatedBorrower	Dummy = 1 if the borrower is rated	Dealogic
LogDealValue	Natural logarithm of the deal value	Dealogic
DealMaturity	Maturity of the loan in years	Dealogic
MajorCurrencyDenomination	Dummy = 1 if the loan is denominated in euros, Japanese yens, British pounds, or U.S. dollars	Dealogic
ForeignCurrencyDenomination	Dummy = 1 if the loan is denominated in a currency different from the local currency used in the borrower's country	Dealogic
DomesticBank	Dummy = 1 if the lender is located in the same country as the borrower	Dealogic
Firm Variables		
Size	Natural logarithm of total assets	WorldScope
Leverage	Ratio of total debt to total assets	WorldScope
Profitability	Ratio of net income to total assets	WorldScope
GrowthOpportunities	Tobin's Q (ratio of market value of assets to book value of assets)	WorldScope
Tangibility	Ratio of tangible assets to total assets	WorldScope

Appendix Table 2. Distribution of Observations by Country and Year

By Country			By Year		
Country	Observations	Observations with Fiscal Consolidation	Year	Observations	Observations with Fiscal Consolidation
Australia	213	31	1990	99	6
Austria	18	3	1991	60	22
Belgium	68	14	1992	104	26
Canada	469	94	1993	128	36
Denmark	56	2	1994	172	118
Finland	98	31	1995	237	174
France	528	86	1996	204	131
Germany	422	268	1997	103	96
Ireland	34	-	1998	131	80
Italy	270	185	1999	175	76
Japan	611	176	2000	297	25
Netherlands	233	65	2001	305	2
Portugal	36	16	2002	190	2
Spain	416	125	2003	347	75
Sweden	177	53	2004	359	103
United Kingdom	1,318	379	2005	456	77
			2006	305	78
			2007	503	131
			2008	167	-
			2009	163	-
			2010	269	106
			2011	193	164
Total	4,967	1,528	Total	4,967	1,528

Table 1. Fiscal Consolidation Episodes in the Sample Countries, 1990-2011
(in percent of GDP)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Australia					0.25	0.50	0.62	0.71	0.37	0.40	
Austria							**2.41**	**1.56**			
Belgium	0.60		**1.79**	0.92	1.15		1.00	0.91			
Canada	0.86	0.40	0.23	0.37	0.49	0.99	0.97	0.48			
Denmark						0.30					
Finland			0.91	**3.71**	**3.46**	**2.91**	1.47	0.23			
France		0.25				0.28	1.33	0.50			
Germany		1.11	0.46	0.11	0.91	1.08		**1.60**		0.30	0.70
Ireland											
Italy		**2.77**	**3.50**	**4.49**	1.43	**4.20**	0.34	**1.82**	0.68		
Japan								1.43	0.48		
Netherlands		0.87	0.74	0.12							
Portugal											0.50
Spain			0.70	1.10	**1.60**	0.74	1.30	1.20			
Sweden				**1.81**	0.78	**3.50**	**2.00**	**1.50**	1.00		
United Kingdom					0.83	0.28	0.30	0.69	0.31	0.22	

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Australia											
Austria	1.02	0.55									0.73
Belgium										0.43	0.79
Canada											0.10
Denmark											0.50
Finland										0.23	0.94
France											**2.11**
Germany			0.74	0.40		0.50	0.90				0.43
Ireland									**4.74**	**2.60**	**3.70**
Italy				1.30	1.00	1.39	**1.61**			0.39	0.78
Japan			0.48	0.64	0.28	0.72	0.15				
Netherlands				**1.70**	0.50						0.34
Portugal		**1.60**			0.60	**1.65**	1.40			**2.26**	**4.10**
Spain										**1.90**	**2.20**
Sweden											0.10
United Kingdom										0.60	**1.90**

Sources: Devries et al. (2011); authors' calculations based on IMF and OECD reports and national budgets.
Note: Large fiscal consolidations, defined as those greater than 1.5 percent of GDP, are shown in **bold**.

Table 2. Descriptive Statistics

	Mean	Std.Dev.	Min	Max
Main Variables of Interest				
LogSpread	4.4	1.0	0.1	7.2
Spread (basis points)	133.6	136.4	1.1	1400.0
FiscalConsolidation	0.3	0.6	0.0	4.5
FiscalConsolidation > 1.5% GDP	0.1	0.2	0.0	1.0
TaxHikes	0.1	0.3	0.0	2.4
SpendingCuts	0.2	0.4	0.0	3.7
Country Variables				
SovereignRating	20.5	0.8	14.0	21.0
SovereignDebt	67.0	37.4	4.5	233.1
ExchangeRate, change	1.9	8.1	-25.3	20.2
InterestRate, change	5.3	57.5	-85.3	740.3
InterestRate, level	4.0	2.6	0.0	15.2
LogRealGDP	27.9	0.8	25.2	29.0
RealGDP (billions of USD)	1680.0	969.0	87.0	4050.0
RealGDPGrowth	2.2	1.9	-8.4	10.7
StockMarketTurnover	98.8	52.8	8.4	269.8
TradeOpenness	64.7	32.6	20.2	197.3
Inflation	2.0	1.4	-1.4	10.4
GovernmentStability	68.0	15.1	25.0	95.8
Law&Order	91.4	9.8	50.0	100.0
LackofCorruption	74.0	15.2	33.3	100.0
Loan Variables				
InvestmentGrade	0.7	0.4	0.0	1.0
RatedBorrower	0.3	0.4	0.0	1.0
LogDealValue	5.5	1.6	-1.4	10.7
DealValue (millions of USD)	790.5	2005.2	0.2	45000.0
DealMaturity	4.1	3.2	0.0	42.0
MajorCurrencyDenomination	0.8	0.4	0.0	1.0
ForeignCurrencyDenomination	0.6	0.5	0.0	1.0
DomesticBank	0.3	0.4	0.0	1.0
Firm Variables				
Size	17.0	2.9	7.3	26.0
Leverage	0.3	0.2	0.0	1.9
Profitability	0.1	0.1	-1.5	0.6
GrowthOpportunities	0.9	0.8	0.0	17.8
Tangibility	0.3	0.3	0.0	1.0
Observations	*4,967*			

Sources: Dealogic, WorldScope, Reinhart and Rogoff (2011), PRS Group's ICRG, IMF, World Bank, OECD, national sources; authors' calculations.

Table 3. Baseline Regression Results

	(1)	(2)	(3)	(4)	(5)
FiscalConsolidation		**0.0287***	**0.1080*****	0.0291	**0.1200*****
		[0.0156]	**[0.0322]**	[0.0196]	**[0.0297]**
FiscalConsolidation > 1.5% GDP			**-0.0933****		**-0.1160*****
			[0.0378]		**[0.0341]**
FiscalConsolidation				-0.0018	-0.2650
* EurozoneCrisis				[0.0758]	[0.2170]
FiscalConsolidation > 1.5% GDP					0.2780
* EurozoneCrisis					[0.1660]
Country Variables					
SovereignRating	-0.0179	-0.0058	-0.0120	-0.0058	-0.0158
	[0.0357]	[0.0384]	[0.0390]	[0.0389]	[0.0406]
SovereignDebt	-0.0002	-0.0003	-0.0003	-0.0003	-0.0004
	[0.0011]	[0.0011]	[0.0011]	[0.0011]	[0.0011]
ExchangeRate, change	-0.0017	-0.0014	-0.0014	-0.0014	-0.0016
	[0.0020]	[0.0021]	[0.0020]	[0.0020]	[0.0019]
InterestRate, change	**-0.0005****	**-0.0005****	**-0.0005****	**-0.0005****	**-0.0006*****
	[0.0002]	**[0.0002]**	**[0.0002]**	**[0.0002]**	**[0.0002]**
InterestRate, level	0.0091	0.0077	0.0090	0.0076	0.0077
	[0.0129]	[0.0125]	[0.0121]	[0.0144]	[0.0154]
LogRealGDP	0.1250	0.0765	0.2450	0.0762	0.2390
	[0.4540]	[0.4290]	[0.4410]	[0.4340]	[0.4220]
RealGDPGrowth	**-0.0223***	**-0.0219***	**-0.0222***	-0.0219	-0.0202
	[0.0113]	**[0.0120]**	**[0.0117]**	[0.0128]	[0.0130]
StockMarketTurnover	-0.0003	-0.0002	-0.0003	-0.0002	-0.0002
	[0.0005]	[0.0005]	[0.0004]	[0.0005]	[0.0005]
TradeOpenness	-0.0012	-0.0009	-0.0010	-0.0009	-0.0012
	[0.0009]	[0.0009]	[0.0010]	[0.0013]	[0.0013]
Inflation	-0.0075	-0.0078	-0.0074	-0.0077	-0.0027
	[0.0153]	[0.0155]	[0.0157]	[0.0153]	[0.0153]
GovernmentStability	-0.0004	-0.0004	-0.0008	-0.0004	-0.0006
	[0.0012]	[0.0011]	[0.0011]	[0.0011]	[0.0012]
Law&Order	**-0.0056*****	**-0.0055*****	**-0.0057*****	**-0.0055****	**-0.0054****
	[0.0019]	**[0.0019]**	**[0.0019]**	**[0.0019]**	**[0.0020]**
LackofCorruption	-0.0013	-0.0011	-0.0009	-0.0011	-0.0012
	[0.0018]	[0.0018]	[0.0018]	[0.0017]	[0.0017]
Loan Variables					
InvestmentGrade	**-1.2010*****	**-1.2010*****	**-1.2000*****	**-1.2010*****	**-1.1990*****
	[0.0560]	**[0.0561]**	**[0.0550]**	**[0.0561]**	**[0.0552]**
RatedBorrower	-0.0610	-0.0607	-0.0610	-0.0607	-0.0609
	[0.0401]	[0.0401]	[0.0395]	[0.0402]	[0.0396]
LogDealValue	**-0.0879*****	**-0.0880*****	**-0.0882*****	**-0.0880*****	**-0.0882*****
	[0.0132]	**[0.0132]**	**[0.0132]**	**[0.0132]**	**[0.0132]**
DealMaturity	-0.0003	-0.0002	-0.0005	-0.0002	-0.0003
	[0.0065]	[0.0065]	[0.0065]	[0.0064]	[0.0064]
MajorCurrencyDenomination	0.0727	0.0739	0.0760	0.0739	0.0767
	[0.0644]	[0.0644]	[0.0641]	[0.0648]	[0.0648]
ForeignCurrencyDenomination	**0.1310*****	**0.1310*****	**0.1300*****	**0.1310*****	**0.1310*****
	[0.0295]	**[0.0292]**	**[0.0290]**	**[0.0293]**	**[0.0295]**
DomesticBank	-0.0183	-0.0191	-0.0180	-0.0191	-0.0187
	[0.0615]	[0.0616]	[0.0615]	[0.0613]	[0.0611]
Firm Variables					
Size	**-0.0380*****	**-0.0379*****	**-0.0375*****	**-0.0379*****	**-0.0375*****
	[0.0105]	**[0.0105]**	**[0.0106]**	**[0.0103]**	**[0.0103]**
Leverage	**0.3850*****	**0.3820*****	**0.3850*****	**0.3820*****	**0.3860*****
	[0.0967]	**[0.0973]**	**[0.0973]**	**[0.0975]**	**[0.0977]**
Profitability	0.1080	0.1040	0.1040	0.1040	0.0920
	[0.1830]	[0.1860]	[0.1860]	[0.1860]	[0.1830]
GrowthOpportunities	**-0.0549*****	**-0.0549*****	**-0.0548*****	**-0.0549*****	**-0.0547*****
	[0.0148]	**[0.0147]**	**[0.0148]**	**[0.0148]**	**[0.0148]**
Tangibility	**-0.1330****	**-0.1300****	**-0.1290****	**-0.1300****	**-0.1280****
	[0.0453]	**[0.0457]**	**[0.0454]**	**[0.0457]**	**[0.0456]**
Observations	4,967	4,967	4,967	4,967	4,967
R-squared	0.61	0.61	0.611	0.61	0.61

Notes: Dependent variable is the natural logarithm of the syndicated loan spread. All regressions are estimated using ordinary least squares. Country, industry, and year fixed effects are included. Also included are indicator variables for the purpose and type of loan. Robust standard errors are clustered at the country level. Statistically significant coefficients are shown in **bold**. ***, **, and * denote significance at the 1, 5, and 10 percent level, respectively.

Table 4. Which Firms Face Higher Borrowing Costs around Fiscal Consolidations?

	Panel A: Firm Size			
	Small		Large	
	(1)	(2)	(3)	(4)
FiscalConsolidation	**0.0597****	**0.1590*****	-0.0177	0.0263
	[0.0268]	**[0.0528]**	[0.0396]	[0.0847]
FiscalConsolidation > 1.5% GDP		**-0.1150****		-0.0533
		[0.0523]		[0.0893]
Country Variables				
SovereignRating	-0.0598	**-0.0632***	0.0682	0.0626
	[0.0362]	**[0.0357]**	[0.0680]	[0.0712]
SovereignDebt	0.0012	0.0013	0.0002	0.0002
	[0.0017]	[0.0017]	[0.0016]	[0.0016]
ExchangeRate, change	-0.0004	-0.0003	-0.0041	-0.0042
	[0.0033]	[0.0032]	[0.0029]	[0.0029]
InterestRate, change	0.0000	-0.0001	**-0.0006*****	**-0.0006*****
	[0.0001]	[0.0001]	**[0.0002]**	**[0.0002]**
InterestRate, level	-0.0075	-0.0068	0.0260	0.0277
	[0.0150]	[0.0140]	[0.0190]	[0.0186]
LogRealGDP	0.4440	0.6690	-0.3510	-0.2670
	[0.4600]	[0.4990]	[0.4280]	[0.4800]
RealGDPGrowth	**-0.0313****	**-0.0313****	-0.0121	-0.0126
	[0.0128]	**[0.0124]**	[0.0196]	[0.0193]
StockMarketTurnover	**-0.0008***	**-0.0009****	0.0002	0.0001
	[0.0004]	**[0.0004]**	[0.0006]	[0.0006]
TradeOpenness	-0.0008	-0.0009	0.0000	-0.0001
	[0.0012]	[0.0013]	[0.0020]	[0.0021]
Inflation	-0.0121	-0.0112	-0.0098	-0.0098
	[0.0181]	[0.0176]	[0.0129]	[0.0130]
GovernmentStability	0.0010	0.0005	-0.0028	-0.0030
	[0.0018]	[0.0018]	[0.0018]	[0.0018]
Law&Order	0.0000	-0.0003	**-0.0098*****	**-0.0099*****
	[0.0023]	[0.0021]	**[0.0030]**	**[0.0030]**
LackofCorruption	-0.0031	-0.0028	0.0015	0.0016
	[0.0028]	[0.0028]	[0.0028]	[0.0028]
Loan Variables				
InvestmentGrade	**-1.0630*****	**-1.0620*****	**-1.3550*****	**-1.3540*****
	[0.0395]	**[0.0386]**	**[0.0868]**	**[0.0864]**
RatedBorrower	**-0.1760*****	**-0.1780*****	0.0476	0.0480
	[0.0401]	**[0.0404]**	[0.0533]	[0.0529]
LogDealValue	**-0.0661*****	**-0.0660*****	**-0.0962*****	**-0.0965*****
	[0.00922]	**[0.00931]**	**[0.0208]**	**[0.0207]**
DealMaturity	0.0047	0.0043	-0.0018	-0.0018
	[0.0083]	[0.0082]	[0.0125]	[0.0125]
MajorCurrencyDenomination	0.0789	0.0793	0.0306	0.0325
	[0.0464]	[0.0456]	[0.1160]	[0.1160]
ForeignCurrencyDenomination	**0.1370*****	**0.1360*****	**0.1800*****	**0.1800*****
	[0.0268]	**[0.0263]**	**[0.0453]**	**[0.0450]**
DomesticBank	-0.0688	-0.0677	0.0695	0.0703
	[0.0599]	[0.0592]	[0.0511]	[0.0509]
Firm Variables				
Size	**-0.0418*****	**-0.0413*****	-0.0284	-0.0290
	[0.00881]	**[0.00895]**	[0.0232]	[0.0229]
Leverage	**0.2770*****	**0.2850*****	**0.5740****	**0.5720****
	[0.0692]	**[0.0674]**	**[0.2650]**	**[0.2680]**
Profitability	0.1440	0.1480	-0.6730	-0.6800
	[0.0862]	[0.0865]	[0.6540]	[0.6530]
GrowthOpportunities	**-0.0488*****	**-0.0485*****	**-0.0790***	**-0.0788***
	[0.0126]	**[0.0126]**	**[0.0396]**	**[0.0398]**
Tangibility	**-0.1240****	**-0.1250****	0.0419	0.0417
	[0.0439]	**[0.0436]**	[0.1530]	[0.1520]
Observations	2,463	2,463	2,504	2,504
R-squared	0.71	0.71	0.58	0.58

Notes: Dependent variable is the natural logarithm of the syndicated loan spread. The sample is split by firm size. Small (Large) firms are those with assets below (above) the median in a given country. All regressions are estimated using ordinary least squares. Country, industry, and year fixed effects are included. Also included are indicator variables for the purpose and type of loan. Robust standard errors are clustered at the country level. Statistically significant coefficients are shown in **bold**. ***, **, and * denote significance at the 1, 5, and 10 percent level, respectively.

Table 4. - continued

Panel B: Credit Rating

	Not rated		Rated	
	(1)	(2)	(3)	(4)
FiscalConsolidation	0.0276	**0.1150****	0.0693	0.0970
	[0.0228]	**[0.0442]**	[0.0430]	[0.0896]
FiscalConsolidation > 1.5% GDP		**-0.1020****		-0.0351
		[0.0367]		[0.108]
Country Variables				
SovereignRating	-0.0061	-0.0114	0.0876	0.0829
	[0.0252]	[0.0256]	[0.1150]	[0.1160]
SovereignDebt	0.0006	0.0006	-0.0029	-0.0029
	[0.0009]	[0.0009]	[0.0030]	[0.0030]
ExchangeRate, change	0.0000	-0.0001	-0.0002	-0.0001
	[0.0028]	[0.0027]	[0.0037]	[0.0038]
InterestRate, change	**-0.0006*****	**-0.0006*****	**-0.0005***	**-0.0005***
	[0.0002]	**[0.0002]**	**[0.0003]**	**[0.0003]**
InterestRate, level	-0.0072	-0.0055	**0.0687***	**0.0685***
	[0.0128]	[0.0128]	**[0.0364]**	**[0.0365]**
LogRealGDP	-0.2580	-0.0640	0.2170	0.2620
	[0.4340]	[0.4340]	[0.9540]	[0.9780]
RealGDPGrowth	-0.0040	-0.0046	-0.0224	-0.0226
	[0.0109]	[0.0104]	[0.0248]	[0.0247]
StockMarketTurnover	-0.0002	-0.0002	**-0.0011****	**-0.0011****
	[0.0006]	[0.0006]	**[0.0004]**	**[0.0005]**
TradeOpenness	-0.0010	-0.0011	-0.0010	-0.0010
	[0.0009]	[0.0010]	[0.0013]	[0.0012]
Inflation	-0.0072	-0.0063	-0.0105	-0.0113
	[0.0136]	[0.0136]	[0.0287]	[0.0276]
GovernmentStability	-0.0017	-0.0021	0.0007	0.0005
	[0.0015]	[0.0014]	[0.0025]	[0.0025]
Law&Order	-0.0002	-0.0005	**-0.0168*****	**-0.0168*****
	[0.0024]	[0.0023]	**[0.0032]**	**[0.0033]**
LackofCorruption	-0.0018	-0.0015	0.0020	0.0020
	[0.0016]	[0.0015]	[0.0028]	[0.0028]
Loan Variables				
InvestmentGrade	**-1.2230*****	**-1.2230*****	**-1.1860*****	**-1.1860*****
	[0.0708]	**[0.0700]**	**[0.1110]**	**[0.1100]**
RatedBorrower	-	-	-	-
LogDealValue	**-0.0697*****	**-0.0698*****	**-0.1200*****	**-0.1200*****
	[0.0147]	**[0.0148]**	**[0.0375]**	**[0.0375]**
DealMaturity	0.0002	0.0000	0.0054	0.0054
	[0.0038]	[0.0038]	[0.0075]	[0.0075]
MajorCurrencyDenomination	**0.0995****	**0.1020****	-0.1620	-0.1600
	[0.0415]	**[0.0411]**	[0.2330]	[0.2340]
ForeignCurrencyDenomination	**0.0811****	**0.0802****	**0.3300*****	**0.3280*****
	[0.0347]	**[0.0346]**	**[0.0910]**	**[0.0934]**
DomesticBank	-0.0443	-0.0428	0.0021	0.0015
	[0.0465]	[0.0460]	[0.1430]	[0.1430]
Firm Variables				
Size	**-0.0366*****	**-0.0361*****	-0.0554	-0.0552
	[0.0118]	**[0.0120]**	[0.0336]	[0.0338]
Leverage	**0.3380*****	**0.3430*****	**0.7150*****	**0.7130*****
	[0.0902]	**[0.0899]**	**[0.1550]**	**[0.1550]**
Profitability	0.2040	0.2060	-0.0640	-0.0705
	[0.1410]	[0.1410]	[0.3930]	[0.3950]
GrowthOpportunities	**-0.0338****	**-0.0334***	**-0.1530*****	**-0.1520*****
	[0.0159]	**[0.0159]**	**[0.0309]**	**[0.0310]**
Tangibility	**-0.1370****	**-0.1350****	-0.0937	-0.0961
	[0.0562]	**[0.0563]**	[0.1380]	[0.1420]
Observations	3,659	3,659	1,308	1,308
R-squared	0.64	0.64	0.63	0.63

Notes: Dependent variable is the natural logarithm of the syndicated loan spread. The sample is split by credit rating availability. (Not) rated firms are those with (no) credit rating published. All regressions are estimated using ordinary least squares. Country, industry, and year fixed effects are included. Also included are indicator variables for the purpose and type of loan. Robust standard errors are clustered at the country level. Statistically significant coefficients are shown in **bold**. ***, **, and * denote significance at the 1, 5, and 10 percent level, respectively.

Table 4. - continued

Panel C: Access to Global Markets

	No ADR		ADR	
	(1)	(2)	(3)	(4)
FiscalConsolidation	**0.0570***	**0.1270***	0.0006	0.0754
	[0.0279]	**[0.0693]**	[0.0241]	[0.0491]
FiscalConsolidation > 1.5% GDP		-0.0770		-0.0950
		[0.0567]		[0.0564]
Country Variables				
SovereignRating	-0.0002	-0.0013	-0.0242	-0.0387
	[0.0361]	[0.0356]	[0.0638]	[0.0673]
SovereignDebt	0.0008	0.0007	0.0015	0.0014
	[0.0014]	[0.0014]	[0.0023]	[0.0023]
ExchangeRate, change	-0.0019	-0.0018	-0.0004	-0.0006
	[0.0034]	[0.0034]	[0.0031]	[0.0031]
InterestRate, change	**0.0005****	**0.0005****	**-0.0009*****	**-0.0009*****
	[0.0002]	**[0.0002]**	**[0.0001]**	**[0.0001]**
InterestRate, level	-0.0133	-0.0120	-0.0091	-0.0083
	[0.0143]	[0.0141]	[0.0203]	[0.0203]
LogRealGDP	0.0011	0.1210	**0.7300***	**0.9160****
	[0.6800]	[0.7140]	**[0.3670]**	**[0.3760]**
RealGDPGrowth	**-0.0431*****	**-0.0430*****	-0.0098	-0.0110
	[0.0076]	**[0.0077]**	[0.0177]	[0.0172]
StockMarketTurnover	**-0.0014****	**-0.0014****	0.0003	0.0002
	[0.0005]	**[0.0005]**	[0.0007]	[0.0007]
TradeOpenness	-0.0011	-0.0011	0.0051	0.0050
	[0.0010]	[0.0010]	[0.0038]	[0.0038]
Inflation	-0.0246	-0.0243	**0.0174***	**0.0176***
	[0.0208]	[0.0206]	**[0.0093]**	**[0.0097]**
GovernmentStability	0.0013	0.0010	-0.0028	-0.0032
	[0.0018]	[0.0018]	[0.0025]	[0.0024]
Law&Order	-0.0039	-0.0039	**-0.0064***	**-0.0068***
	[0.0034]	[0.0031]	**[0.0031]**	**[0.0032]**
LackofCorruption	0.0001	0.0002	-0.0011	-0.0008
	[0.0034]	[0.0034]	[0.0020]	[0.0020]
Loan Variables				
InvestmentGrade	**-1.0580*****	**-1.0590*****	**-1.3650*****	**-1.3620*****
	[0.0593]	**[0.0589]**	**[0.0750]**	**[0.0741]**
RatedBorrower	**-0.2330*****	**-0.2340*****	**0.1040***	**0.1040***
	[0.0530]	**[0.0529]**	**[0.0554]**	**[0.0546]**
LogDealValue	**-0.0402*****	**-0.0405*****	**-0.1180*****	**-0.1190*****
	[0.0108]	**[0.0109]**	**[0.0164]**	**[0.0163]**
DealMaturity	0.0081	0.0081	-0.0002	-0.0005
	[0.0078]	[0.0077]	[0.0118]	[0.0119]
MajorCurrencyDenomination	0.0081	0.0088	**0.2000****	**0.2040****
	[0.0639]	[0.0635]	**[0.0830]**	**[0.0830]**
ForeignCurrencyDenomination	**0.1090****	**0.1090****	**0.2260*****	**0.2250*****
	[0.0393]	**[0.0390]**	**[0.0532]**	**[0.0535]**
DomesticBank	**-0.0613****	**-0.0599****	0.0646	0.0649
	[0.0271]	**[0.0268]**	[0.1090]	[0.1090]
Firm Variables				
Size	**-0.0513*****	**-0.0506****	-0.0277	-0.0270
	[0.0171]	**[0.0173]**	[0.0232]	[0.0233]
Leverage	**0.2530***	**0.2570***	**0.7530*****	**0.7510*****
	[0.1310]	**[0.1300]**	**[0.1740]**	**[0.1750]**
Profitability	**0.2400***	**0.2420****	-0.2870	-0.2900
	[0.1130]	**[0.1130]**	[0.2920]	[0.2870]
GrowthOpportunities	**-0.0479****	**-0.0477****	**-0.0504***	**-0.0502***
	[0.0196]	**[0.0198]**	**[0.0257]**	**[0.0254]**
Tangibility	-0.1220	-0.1220	-0.1390	-0.1340
	[0.1100]	[0.1090]	[0.1070]	[0.1070]
Observations	2,688	2,688	2,279	2,279
R-squared	0.66	0.66	0.62	0.62

Notes: Dependent variable is the natural logarithm of the syndicated loan spread. The sample is split by access to global markets. Firms with no ADR issuance are considered to have no or limited access to finance outside their country. All regressions are estimated using ordinary least squares. Country, industry, and year fixed effects are included. Also included are indicator variables for the purpose and type of loan. Robust standard errors are clustered at the country level. Statistically significant coefficients are shown in **bold**. ***, **, and * denote significance at the 1, 5, and 10 percent level, respectively.

Table 4. - continued

Panel D: External Finance Dependence

	Low Dependence		High Dependence	
	(1)	(2)	(3)	(4)
FiscalConsolidation	**0.0962****	**0.1700*****	-0.0088	0.0634
	[0.0341]	**[0.0563]**	[0.0329]	[0.0593]
FiscalConsolidation > 1.5% GDP		-0.0921		-0.0843
		[0.0572]		[0.0547]
Country Variables				
SovereignRating	-0.0358	-0.0424	0.0181	0.0140
	[0.0422]	[0.0432]	[0.0415]	[0.0434]
SovereignDebt	0.0017	0.0016	-0.0002	-0.0003
	[0.0018]	[0.0018]	[0.0011]	[0.0011]
ExchangeRate, change	-0.0029	-0.0028	-0.0006	-0.0007
	[0.0046]	[0.0045]	[0.0021]	[0.0021]
InterestRate, change	-0.0001	-0.0001	**-0.0008*****	**-0.0008*****
	[0.0003]	[0.0003]	**[0.0002]**	**[0.0002]**
InterestRate, level	0.0016	0.0003	0.0261	0.0302
	[0.0132]	[0.0140]	[0.0255]	[0.0274]
LogRealGDP	**1.4050***	**1.5210****	-0.5890	-0.4600
	[0.6700]	**[0.6530]**	[0.4330]	[0.4060]
RealGDPGrowth	-0.0164	-0.0168	-0.0220	-0.0226
	[0.0109]	[0.0105]	[0.0209]	[0.0205]
StockMarketTurnover	-0.0003	-0.0003	-0.0002	-0.0002
	[0.0007]	[0.0007]	[0.0009]	[0.0008]
TradeOpenness	0.0002	0.0000	-0.0014	-0.0014
	[0.0012]	[0.0013]	[0.0019]	[0.0020]
Inflation	0.0148	0.0155	-0.0317	-0.0321
	[0.0229]	[0.0231]	[0.0230]	[0.0228]
GovernmentStability	-0.0005	-0.0009	-0.0008	-0.0010
	[0.0021]	[0.0022]	[0.0011]	[0.0011]
Law&Order	**-0.0045****	**-0.0048****	**-0.0063****	**-0.0063****
	[0.0020]	**[0.0020]**	**[0.0022]**	**[0.0022]**
LackofCorruption	-0.0007	-0.0005	-0.0012	-0.0011
	[0.0017]	[0.0017]	[0.0030]	[0.0030]
Loan Variables				
InvestmentGrade	**-1.1880*****	**-1.1870*****	**-1.1970*****	**-1.1960*****
	[0.0746]	**[0.0736]**	**[0.0561]**	**[0.0550]**
RatedBorrower	**-0.1480*****	**-0.1480*****	0.0307	0.0308
	[0.0406]	**[0.0404]**	[0.0476]	[0.0467]
LogDealValue	**-0.0604*****	**-0.0606*****	**-0.1140*****	**-0.1140*****
	[0.0095]	**[0.0098]**	**[0.0152]**	**[0.0150]**
DealMaturity	-0.0067	-0.0070	0.0033	0.0032
	[0.0063]	[0.0063]	[0.0078]	[0.0077]
MajorCurrencyDenomination	0.0585	0.0583	0.0955	0.0984
	[0.0693]	[0.0688]	[0.0850]	[0.0849]
ForeignCurrencyDenomination	**0.1180*****	**0.1170*****	**0.1530*****	**0.1530*****
	[0.0306]	**[0.0304]**	**[0.0387]**	**[0.0381]**
DomesticBank	-0.0433	-0.0433	-0.0076	-0.0060
	[0.0633]	[0.0633]	[0.0679]	[0.0677]
Firm Variables				
Size	**-0.0478*****	**-0.0474*****	**-0.0433*****	**-0.0428*****
	[0.0095]	**[0.0095]**	**[0.0120]**	**[0.0121]**
Leverage	0.1830	0.1830	**0.5250*****	**0.5270*****
	[0.1240]	[0.1230]	**[0.1710]**	**[0.1720]**
Profitability	0.1000	0.0968	-0.0610	-0.0539
	[0.1190]	[0.1170]	[0.3120]	[0.3070]
GrowthOpportunities	**-0.0483****	**-0.0485****	-0.0716	-0.0699
	[0.0188]	**[0.0187]**	[0.0527]	[0.0516]
Tangibility	0.0230	0.0223	-0.1760	-0.1700
	[0.0381]	[0.0372]	[0.1410]	[0.1430]
Observations	2,485	2,485	2,482	2,482
R-squared	0.69	0.69	0.58	0.58

Notes: Dependent variable is the natural logarithm of the syndicated loan spread. The sample is split by external finance dependence. Firms operating in industries that have been argued to have more need for external finance, as assigned by Rajan and Zingales (1998), are considered to have high dependence. All regressions are estimated using ordinary least squares. Country, industry, and year fixed effects are included. Also included are indicator variables for the purpose and type of loan. Robust standard errors are clustered at the country level. Statistically significant coefficients are shown in **bold**. ***, **, and * denote significance at the 1, 5, and 10 percent level, respectively.

Table 4. - continued

Panel E: Cross-Border Diversification of Firm Activities

	Domestic		Multinational	
	(1)	(2)	(3)	(4)
FiscalConsolidation	0.0232	**0.1580*** **	0.0851	0.0867
	[0.0225]	**[0.0322]**	[0.0887]	[0.1150]
FiscalConsolidation > 1.5% GDP		**-0.1520*** **		-0.0029
		[0.0287]		[0.0793]
Country Variables				
SovereignRating	-0.0177	-0.0250	-0.0001	-0.0002
	[0.0336]	[0.0348]	[0.0721]	[0.0719]
SovereignDebt	0.0014	0.0015	**-0.0064** **	**-0.0065** **
	[0.0012]	[0.0011]	**[0.0023]**	**[0.0023]**
ExchangeRate, change	-0.0010	-0.0009	-0.0029	-0.0030
	[0.0020]	[0.0019]	[0.0037]	[0.0037]
InterestRate, change	0.0004	0.0003	**-0.0006** **	**-0.0006** **
	[0.0004]	[0.0004]	**[0.0002]**	**[0.0002]**
InterestRate, level	0.0003	0.0009	0.0269	0.0269
	[0.0186]	[0.0178]	[0.0205]	[0.0204]
LogRealGDP	0.1900	0.4880	-1.2070	-1.2070
	[0.4230]	[0.3800]	[0.7910]	[0.7910]
RealGDPGrowth	**-0.0317** **	**-0.0329*** **	-0.0119	-0.0119
	[0.0115]	**[0.0106]**	[0.0302]	[0.0302]
StockMarketTurnover	-0.0003	-0.0003	-0.0001	-0.0001
	[0.0005]	[0.0005]	[0.0012]	[0.0013]
TradeOpenness	-0.0011	-0.0011	-0.0005	-0.0005
	[0.0012]	[0.0012]	[0.0017]	[0.0016]
Inflation	-0.0028	-0.0020	-0.0122	-0.0122
	[0.0218]	[0.0210]	[0.0275]	[0.0272]
GovernmentStability	0.0007	0.0002	**-0.0024***	**-0.0024***
	[0.0023]	[0.0023]	**[0.0013]**	**[0.0013]**
Law&Order	**-0.0061** **	**-0.0065*** **	-0.0029	-0.0029
	[0.0022]	**[0.0019]**	[0.0037]	[0.0037]
LackofCorruption	-0.0031	-0.0027	0.0013	0.0013
	[0.0028]	[0.0027]	[0.0021]	[0.0022]
Loan Variables				
InvestmentGrade	**-1.1410*** **	**-1.1410*** **	**-1.2440*** **	**-1.2440*** **
	[0.0567]	**[0.0562]**	**[0.0904]**	**[0.0898]**
RatedBorrower	**-0.1240** **	**-0.1240** **	0.0189	0.0188
	[0.0560]	**[0.0553]**	[0.0534]	[0.0532]
LogDealValue	**-0.0799*** **	**-0.0802*** **	**-0.0927*** **	**-0.0927*** **
	[0.0198]	**[0.0199]**	**[0.0179]**	**[0.0180]**
DealMaturity	-0.0036	-0.0043	0.0126	0.0126
	[0.0074]	[0.0073]	[0.0077]	[0.0077]
MajorCurrencyDenomination	0.0673	0.0693	0.0736	0.0737
	[0.0675]	[0.0682]	[0.0944]	[0.0945]
ForeignCurrencyDenomination	**0.0947** **	**0.0946** **	**0.2360*** **	**0.2360*** **
	[0.0417]	**[0.0416]**	**[0.0308]**	**[0.0306]**
DomesticBank	-0.0799	-0.0790	0.0726	0.0726
	[0.0624]	[0.0622]	[0.0476]	[0.0478]
Firm Variables				
Size	**-0.0306** **	**-0.0298** **	**-0.0662*** **	**-0.0662*** **
	[0.0113]	**[0.0112]**	**[0.0153]**	**[0.0152]**
Leverage	**0.2420** **	**0.2480** **	**0.6960** **	**0.6960** **
	[0.0954]	**[0.0941]**	**[0.2770]**	**[0.2770]**
Profitability	0.1560	0.1590	-0.2400	-0.2400
	[0.2100]	[0.2100]	[0.2940]	[0.2940]
GrowthOpportunities	-0.0427	-0.0413	**-0.0426** **	**-0.0426** **
	[0.0271]	[0.0273]	**[0.0148]**	**[0.0148]**
Tangibility	-0.0551	-0.0539	**-0.3180*** **	**-0.3180*** **
	[0.0510]	[0.0521]	**[0.0652]**	**[0.0650]**
Observations	3,150	3,150	1,817	1,817
R-squared	0.64	0.64	0.61	0.61

Notes: Dependent variable is the natural logarithm of the syndicated loan spread. The sample is split by cross-border diversification in firm activities. A firm is considered to be multinational if its foreign sales and foreign income are nonzero. All regressions are estimated using ordinary least squares. Country, industry, and year fixed effects are included. Also included are indicator variables for the purpose and type of loan. Robust standard errors are clustered at the country level. Statistically significant coefficients are shown in **bold**. ***, **, and * denote significance at the 1, 5, and 10 percent level, respectively.

Table 5. Do Country Conditions Matter?

	Sovereign Debt		Government Size		Monetary Policy		Exchange Rate Regime		Depreciation		Government Stability	
	High	Low	Large	Small	Tight	Loose	Fixed	Flexible	No	Yes	Low	High
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
FiscalConsolidation	**0.2270****	0.0118	**0.1100*****	**0.1800****	**0.1410*****	0.1070	**0.1340*****	0.0984	**0.1880****	0.0797	**0.1450*****	**0.0813***
	[0.0780]	[0.0828]	**[0.0320]**	**[0.0621]**	**[0.0388]**	[0.0622]	**[0.0435]**	[0.0621]	**[0.0691]**	[0.0531]	**[0.0484]**	**[0.0437]**
FiscalConsolidation > 1.5% GDP	**-0.2130*****	-0.0551	**-0.1080****	0.0028	**-0.1380*****	**-0.2330*****	**-0.1030***	-0.1150	**-0.1550*****	-0.0926	**-0.1490*****	**-0.1750****
	[0.0691]	[0.0990]	**[0.0380]**	[0.1040]	**[0.0371]**	**[0.0747]**	**[0.0488]**	[0.0938]	**[0.0497]**	[0.0540]	**[0.0338]**	**[0.0786]**
Country Variables												
SovereignRating	0.0693	0.0939	**-0.1080****	0.1130	0.0030	-0.0974	-0.0378	0.0099	0.0511	-0.0918	-0.0501	0.0166
	[0.0430]	[0.0620]	**[0.0435]**	[0.1280]	[0.0305]	[0.0605]	[0.0423]	[0.0731]	[0.0522]	[0.0656]	[0.0408]	[0.0655]
SovereignDebt	0.0015	0.0018	-0.0009	0.0048	**0.0037*****	**-0.0077****	0.0027	-0.0028	**0.0047***	-0.0048	**0.0033*****	-0.0040
	[0.0014]	[0.0034]	[0.0018]	[0.0056]	**[0.0009]**	**[0.0027]**	[0.0022]	[0.0043]	**[0.0023]**	[0.0028]	**[0.0006]**	[0.0024]
ExchangeRate, change	-0.0013	-0.0017	-0.0021	**-0.0056***	0.0027	0.0026	0.0010	**-0.0052***	-0.0004	-0.0026	**-0.0065****	**0.0045****
	[0.0040]	[0.0047]	[0.0037]	**[0.0027]**	[0.0021]	[0.0032]	[0.0049]	**[0.0021]**	[0.0040]	[0.0040]	**[0.0029]**	**[0.0020]**
InterestRate, change	**-0.0006****	-0.0004	**0.0014***	-0.0005	0.0008	**-0.0003***	0.0039	**-0.0005*****	0.0009	**-0.0012*****	-0.0010	**-0.0005*****
	[0.0003]	[0.0006]	**[0.0008]**	[0.0003]	[0.0006]	**[0.00014]**	[0.0028]	**[0.0001]**	[0.0007]	**[0.0003]**	[0.0006]	**[0.0001]**
InterestRate, level	-0.0333	0.0114	-0.0241	-0.0222	0.0152	-0.0291	-0.0422	**0.0343****	-0.0119	-0.0128	-0.0145	0.0214
	[0.0405]	[0.0175]	[0.0215]	[0.0205]	[0.0148]	[0.0222]	[0.0281]	**[0.0106]**	[0.0226]	[0.0256]	[0.0206]	[0.0267]
LogRealGDP	0.1480	0.3020	0.2410	2.1260	0.2360	**-1.6210***	0.2520	-0.0260	1.5570	0.2740	0.5500	0.4750
	[0.8720]	[0.3770]	[0.3470]	[1.1110]	[0.3210]	**[0.8700]**	[0.3620]	[1.4020]	[0.8960]	[0.3360]	[0.3830]	[0.5140]
RealGDPGrowth	0.0061	**-0.0258***	-0.0095	**-0.0492*****	-0.0057	0.0003	-0.0131	**-0.0260****	**-0.0390***	**-0.0364***	-0.0066	**-0.0421***
	[0.0220]	**[0.0123]**	[0.0117]	**[0.0112]**	[0.0104]	[0.0199]	[0.0112]	**[0.0100]**	**[0.0195]**	**[0.0178]**	[0.0129]	**[0.0204]**
StockMarketTurnover	**-0.0016***	-0.0002	0.0000	-0.0009	**-0.0015****	0.0009	0.0003	-0.0007	**-0.0009****	0.0010	-0.0010	**0.0013****
	[0.0009]	[0.0002]	[0.0004]	[0.0010]	**[0.0006]**	[0.0008]	[0.0005]	[0.0005]	**[0.0004]**	[0.0007]	[0.0009]	**[0.0005]**
TradeOpenness	**-0.0032****	**0.0070****	0.0003	0.0011	-0.0009	-0.0056	**0.0064***	-0.0030	0.0051	-0.0002	0.0015	**0.0020****
	[0.0014]	**[0.0028]**	[0.0014]	[0.0078]	[0.0008]	[0.0040]	**[0.0032]**	[0.0017]	[0.0040]	[0.0015]	[0.0025]	**[0.0008]**
Inflation	0.0387	-0.0142	**0.0325****	-0.0209	**-0.0392****	-0.0151	0.0324	-0.0408	-0.0269	-0.0145	-0.0201	0.0065
	[0.0579]	[0.0201]	**[0.0133]**	[0.0256]	**[0.0177]**	[0.0235]	[0.0239]	[0.0237]	[0.0205]	[0.0171]	[0.0170]	[0.0187]
GovernmentStability	-0.0003	-0.0010	-0.0009	-0.0017	-0.0017	**-0.0038****	**-0.0046****	-0.0003	-0.0004	**-0.0039***	-0.0007	-0.0011
	[0.0015]	[0.0011]	[0.0012]	[0.0030]	[0.0012]	**[0.0014]**	**[0.0018]**	[0.0012]	[0.0020]	**[0.0018]**	[0.0035]	[0.0016]
Law&Order	**-0.0074*****	**-0.0098*****	**-0.0059****	**-0.0078****	-0.0006	-0.0028	**-0.0038***	**-0.0085***	-0.0060	**-0.0060***	-0.0026	**-0.0078****
	[0.0016]	**[0.0031]**	**[0.0024]**	**[0.0027]**	[0.0040]	[0.0026]	**[0.0018]**	**[0.0039]**	[0.0041]	**[0.0030]**	[0.0048]	**[0.0032]**
LackofCorruption	**-0.0045****	0.0020	**0.0037****	**-0.0050*****	-0.0006	-0.0017	0.0001	**-0.0043****	-0.0023	0.0004	0.0039	0.0022
	[0.0017]	[0.0017]	**[0.0013]**	**[0.0004]**	[0.0022]	[0.0018]	[0.0026]	**[0.0016]**	[0.0015]	[0.0033]	[0.0024]	[0.0013]

Table 5. - continued

	Sovereign Debt		Government Size		Monetary Policy		Exchange Rate Regime		Depreciation		Government Stability	
	High	Low	Large	Small	Tight	Loose	Fixed	Flexible	No	Yes	Low	High
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Loan Variables												
InvestmentGrade	**-1.2190*** **	**-1.1960*** **	**-1.1740*** **	**-1.2010*** **	**-1.1610*** **	**-1.2300*** **	**-1.2640*** **	**-1.1360*** **	**-1.2890*** **	**-1.0920*** **	**-1.2310*** **	**-1.1770*** **
	[0.1310]	**[0.0367]**	**[0.0577]**	**[0.0793]**	**[0.0667]**	**[0.0896]**	**[0.0658]**	**[0.0880]**	**[0.0667]**	**[0.0609]**	**[0.0593]**	**[0.0681]**
RatedBorrower	**-0.1850****	-0.0172	-0.0283	**-0.1570***	**-0.1240****	-0.0762	-0.0067	**-0.1150****	**-0.1400****	-0.0247	**-0.1780****	-0.0013
	[0.0727]	[0.0534]	[0.0481]	**[0.0645]**	**[0.0529]**	[0.0615]	[0.0530]	**[0.0348]**	**[0.0492]**	[0.0578]	**[0.0613]**	[0.0427]
LogDealValue	**-0.0710****	**-0.0990*** **	**-0.0823*** **	**-0.0933*** **	**-0.0852*** **	**-0.0858*** **	**-0.0834****	**-0.0889*** **	**-0.0827*** **	**-0.0860*** **	**-0.0830*** **	**-0.0919*** **
	[0.0233]	**[0.0175]**	**[0.0182]**	**[0.0125]**	**[0.0118]**	**[0.0170]**	**[0.0292]**	**[0.0135]**	**[0.0192]**	**[0.0202]**	**[0.0198]**	**[0.0125]**
DealMaturity	0.0066	-0.0018	-0.0038	0.0084	-0.0035	0.0057	-0.0086	0.0070	0.0103	-0.0078	0.0037	-0.0018
	[0.0106]	[0.0068]	[0.0092]	[0.0139]	[0.0050]	[0.0107]	[0.0071]	[0.0075]	[0.0069]	[0.0111]	[0.0080]	[0.0090]
MajorCurrencyDenomination	0.0147	0.0655	0.1050	0.0390	0.0099	0.0476	0.0820	0.0704	-0.0357	**0.1420****	0.0424	0.0722
	[0.0588]	[0.1140]	[0.0618]	[0.0996]	[0.0542]	[0.0797]	[0.0599]	[0.0817]	[0.0773]	**[0.0531]**	[0.0551]	[0.0816]
ForeignCurrencyDenomination	**0.1510****	**0.1360*** **	**0.1210*** **	**0.1320****	**0.1540*** **	**0.1670*** **	**0.1490*** **	**0.1180*** **	**0.1800*** **	**0.1020****	**0.1580*** **	**0.1260*** **
	[0.0511]	**[0.0179]**	**[0.0372]**	**[0.0482]**	**[0.0423]**	**[0.0349]**	**[0.0474]**	**[0.0286]**	**[0.0328]**	**[0.0358]**	**[0.0433]**	**[0.0368]**
DomesticBank	-0.1540	0.0114	0.0284	-0.1000	0.0424	-0.1020	-0.0311	-0.0122	-0.0142	-0.0155	-0.0436	0.0083
	[0.1100]	[0.0434]	[0.0367]	[0.1120]	[0.0408]	[0.0774]	[0.0399]	[0.0772]	[0.0496]	[0.0606]	[0.0728]	[0.0508]
Firm Variables												
Size	**-0.0503****	**-0.0361****	**-0.0294****	**-0.0537****	**-0.0285****	**-0.0449****	-0.0113	**-0.0511*** **	**-0.0427*** **	**-0.0299****	**-0.0239****	**-0.0440*** **
	[0.0183]	**[0.0121]**	**[0.0134]**	**[0.0188]**	**[0.0104]**	**[0.0159]**	[0.0095]	**[0.0089]**	**[0.0141]**	**[0.0120]**	**[0.0092]**	**[0.0140]**
Leverage	**0.5310*** **	**0.3680*** **	**0.3980*** **	**0.3840****	**0.2260*** **	**0.5510*** **	0.2730	**0.4710****	**0.4390*** **	**0.4400*** **	0.1630	**0.4960*** **
	[0.1040]	**[0.0849]**	**[0.1130]**	**[0.1190]**	**[0.0615]**	**[0.1080]**	[0.1710]	**[0.1200]**	**[0.1030]**	**[0.1350]**	[0.1230]	**[0.1450]**
Profitability	0.4940	-0.0141	-0.0166	**0.6530***	0.2620	-0.1390	**-0.5090***	**0.3840****	0.1840	0.1750	-0.2520	0.2130
	[0.3090]	[0.2830]	[0.2500]	**[0.3230]**	[0.1680]	[0.4510]	**[0.2620]**	**[0.1380]**	[0.1910]	[0.2360]	[0.2930]	[0.1890]
GrowthOpportunities	-0.0351	**-0.0522*** **	**-0.0348***	**-0.0756*** **	**-0.0567*** **	**-0.0269***	-0.0238	**-0.0675*** **	**-0.0665*** **	-0.0370	-0.0315	**-0.0617*** **
	[0.0422]	**[0.0140]**	**[0.0193]**	**[0.0123]**	**[0.0105]**	**[0.0142]**	[0.0359]	**[0.0086]**	**[0.0132]**	[0.0217]	[0.0319]	**[0.0141]**
Tangibility	-0.1410	**-0.1860*** **	-0.1110	**-0.1630***	-0.0874	**-0.1800****	-0.0823	**-0.1910****	**-0.1530***	-0.1330	**-0.1970*** **	-0.0958
	[0.1360]	**[0.0588]**	[0.0895]	**[0.0720]**	[0.1030]	**[0.0823]**	[0.0848]	**[0.0508]**	**[0.0765]**	[0.0981]	**[0.0650]**	[0.0877]
Observations	1,903	3,064	3,323	1,644	2,305	2,662	2,286	2,681	2,869	2,098	1,906	3,061
R-squared	0.65	0.63	0.64	0.61	0.66	0.62	0.64	0.62	0.66	0.60	0.67	0.60

Notes: Dependent variable is the natural logarithm of the syndicated loan spread. The sample is split with respect to the median value of the "country condition" in question. Sovereign debt is the ratio of total government debt to GDP. Government size is the ratio of total expenditures to GDP. Monetary policy stance is determined using the Taylor residuals. Exchange rate regime follows the fine classification of Reinhart and Rogoff (2004), where categories 1 through 8 are labeled as fixed and categories 9 and above are labeled as flexible. Depreciation refers to negative change in the exchange rate. Government stability is measured by the ICRG index. All regressions are estimated using ordinary least squares. Country, industry, and year fixed effects are included. Also included are indicator variables for the purpose and type of loan. Robust standard errors are clustered at the country level. Statistically significant coefficients are shown in **bold**. ***, **, and * denote significance at the 1, 5, and 10 percent level, respectively.

Table 6. Tax Hikes versus Spending Cuts

	(1)	(2)	(3)	(4)	(5)	(6)
TaxHikes	0.0405		0.0241			
	[0.0342]		[0.0482]			
SpendingCuts		0.0431	0.0329			
		[0.0311]	[0.0436]			
CorporateTax				**0.5450*** **		**0.5660*** **
				[0.1060]		**[0.1390]**
PersonalIncomeTax				0.0777		0.0729
				[0.0521]		[0.0834]
ValueAddedTax				**-0.2030*** **		**-0.1530** **
				[0.0542]		**[0.0676]**
PropertyTax				0.1070		0.1160
				[0.0707]		[0.1100]
HealthcareTax				0.0550		0.1000
				[0.0651]		[0.0844]
PublicInvestmentCut					-0.0512	-0.0774
					[0.0624]	[0.0638]
GovernmentExpenditureCut					0.0604	0.0767
					[0.0496]	[0.0508]
SocialSecurityContributionCut					-0.0138	-0.0363
					[0.0639]	[0.0770]
SocialBenefitsCut					**-0.1200** **	**-0.1010** *
					[0.0545]	**[0.0598]**
WageCut					**-0.1280** **	-0.0703
					[0.0628]	[0.0718]
PersonnelCut					0.0883	0.0093
					[0.0595]	[0.0655]
UnemploymentBenefitCut					**0.1320***	0.0079
					[0.0707]	[0.0835]
PensionCut					**0.1540***	0.0806
					[0.0926]	[0.1030]
HealthcareBenefitCut					-0.0411	-0.0489
					[0.0794]	[0.0876]
Observations	4,967	4,967	4,967	4,967	4,967	4,967
R-squared	0.61	0.61	0.61	0.62	0.61	0.62

Notes: Dependent variable is the natural logarithm of the syndicated loan spread. All regressions are estimated using ordinary least squares. Country, industry, and year fixed effects are included. Also included are indicator variables for the purpose and type of loan. In all regressions the country-level (SovereignRating, SovereignDebt, ExchangeRate-change, InterestRate-change, InterestRate-level, LogRealGDP, RealGDPGrowth, StockMarketTurnover, TradeOpenness, Inflation, GovernmentStability, Law&Order, LackofCorruption), loan-level (InvestmentGrade, RatedBorrower, LogDealValue, DealMaturity, MajorCurrrencyDenomination, ForeignCurrencyDenomination, DomesticBank), and firm-level (Size, Leverage, Profitability, GrowthOpportunities, Tangibility) variables displayed in Table 3 are also included; coefficients on these variables are comparable to those in Table 3 and are omitted from this table for the sake of space. Robust standard errors are clustered at the country level. Statistically significant coefficients are shown in **bold**. ***, **, and * denote significance at the 1, 5, and 10 percent level, respectively.

Table 7. Differential "Effect" of Fiscal Consolidation on Sectors

	(1)	(2)	(3)	(4)	(5)	(6)
ConsumptionTax	0.0304					
	[0.0707]					
ConsumptionTax * RetailSector	**0.2300*** **					
	[0.0714]					
BankTax		-0.0168				
		[0.0741]				
BankTax * BankingSector		**0.2710** **				
		[0.0946]				
HealthcareTax			0.0125			
			[0.0628]			
HealthcareTax * HealthcareSector			**0.7460*** **			
			[0.1980]			
TransportationCuts				0.0436		
				[0.0729]		
TransportationCuts * TransportationSector				-0.1220		
				[0.1740]		
HealthcareBenefitCuts					0.0304	
					[0.0765]	
HealthcareBenefitCuts * HealthcareSector					-0.1270	
					[0.2770]	
DefenseCuts						**0.0896* **
						[0.0482]
DefenseCuts * DefenseSector						0.1150
						[0.0810]
Observations	4,967	4,967	4,967	4,967	4,967	4,967
R-squared	0.61	0.61	0.61	0.61	0.61	0.61

Notes: Dependent variable is the natural logarithm of the syndicated loan spread. All regressions are estimated using ordinary least squares. Country, industry, and year fixed effects are included. Also included are indicator variables for the purpose and type of loan. In all regressions the country-level (SovereignRating, SovereignDebt, ExchangeRate-change, InterestRate-change, InterestRate-level, LogRealGDP, RealGDPGrowth, StockMarketTurnover, TradeOpenness, Inflation, GovernmentStability, Law&Order, LackofCorruption), loan-level (InvestmentGrade, RatedBorrower, LogDealValue, DealMaturity, MajorCurrrencyDenomination, ForeignCurrencyDenomination, DomesticBank), and firm-level (Size, Leverage, Profitability, GrowthOpportunities, Tangibility) variables displayed in Table 3 are also included; coefficients on these variables are comparable to those in Table 3 and are omitted from this table for the sake of space. Robust standard errors are clustered at the country level. Statistically significant coefficients are shown in **bold**. ***, **, and * denote significance at the 1, 5, and 10 percent level, respectively.

Table 8. Regression Results with Heckman Selection Bias Correction

	All firms				Firms that issued at least one loan			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
FiscalConsolidation	**0.0275***	0.0534	**0.1060*****	0.0534	**0.0276***	0.0602	**0.1060*****	0.0602
	[0.0158]	[0.0455]	**[0.0325]**	[0.0455]	**[0.0157]**	[0.0536]	**[0.0322]**	[0.0536]
FiscalConsolidation > 1.5% GDP			**-0.0930****				**-0.0931****	
			[0.0379]				**[0.0378]**	
ExternalFinanceDependence		**2.2553*****		**2.2553*****		**1.8973*****		**1.8973*****
		[0.2263]		**[0.2263]**		**[0.1531]**		**[0.1531]**
Country Variables								
SovereignRating	-0.0071	0.0102	-0.0132	0.0102	-0.0067	0.0224	-0.0128	0.0224
	[0.0381]	[0.0608]	[0.0387]	[0.0608]	[0.0381]	[0.0744]	[0.0387]	[0.0744]
SovereignDebt	-0.0003	**-0.0027***	-0.0003	**-0.0027***	-0.0002	**-0.0041***	-0.0002	**-0.0041***
	[0.0010]	**[0.0016]**	[0.0010]	**[0.0016]**	[0.0010]	**[0.0021]**	[0.0010]	**[0.0021]**
ExchangeRate, change	-0.0013	0.0016	-0.0013	0.0016	-0.0013	0.0006	-0.0013	0.0006
	[0.0021]	[0.0016]	[0.0020]	[0.0016]	[0.0021]	[0.0023]	[0.0020]	[0.0023]
InterestRate, change	**-0.0005*****	-0.0001	**-0.0006*****	-0.0001	**-0.0005*****	-0.0001	**-0.0006*****	-0.0001
	[0.0002]	[0.0004]	**[0.0002]**	[0.0004]	**[0.0002]**	[0.0004]	**[0.0002]**	[0.0004]
InterestRate, level	0.0083	**-0.0192****	0.0095	**-0.0192****	0.0077	-0.0013	0.0090	-0.0013
	[0.0124]	**[0.0089]**	[0.0120]	**[0.0089]**	[0.0123]	[0.0239]	[0.0119]	[0.0239]
LogRealGDP	0.0516	0.2350	0.2200	0.2340	0.0551	0.3960	0.2230	0.3950
	[0.4180]	[0.5750]	[0.4320]	[0.5750]	[0.4150]	[0.7960]	[0.4290]	[0.7960]
RealGDPGrowth	**-0.0213***	**-0.0259****	**-0.0216***	**-0.0259****	**-0.0213***	**-0.0286***	**-0.0216***	**-0.0286***
	[0.0116]	**[0.0112]**	**[0.0113]**	**[0.0112]**	**[0.0115]**	**[0.0165]**	**[0.0112]**	**[0.0164]**
StockMarketTurnover	-0.0002	-0.0008	-0.0002	-0.0008	-0.0002	-0.0011	-0.0002	-0.0011
	[0.0004]	[0.0007]	[0.0004]	[0.0007]	[0.0004]	[0.0009]	[0.0004]	[0.0009]
TradeOpenness	-0.0010	**0.0049*****	-0.0011	**0.0049*****	-0.0010	**0.0045****	-0.0011	**0.0045****
	[0.0010]	**[0.0016]**	[0.0010]	**[0.0016]**	[0.0010]	**[0.0022]**	[0.0010]	**[0.0022]**
Inflation	-0.0083	-0.0103	-0.0080	-0.0103	-0.0074	-0.0372	-0.0071	-0.0373
	[0.0154]	[0.0180]	[0.0156]	[0.0180]	[0.0151]	[0.0274]	[0.0153]	[0.0274]
GovernmentStability	-0.0004	-0.0023	-0.0008	-0.0023	-0.0004	-0.0039	-0.0007	-0.0039
	[0.0012]	[0.0040]	[0.0012]	[0.0040]	[0.0012]	[0.0043]	[0.0012]	[0.0043]
Law&Order	**-0.0053*****	-0.0040	**-0.0055*****	-0.0040	**-0.0054*****	-0.0034	**-0.0056*****	-0.0034
	[0.0018]	[0.0037]	**[0.0018]**	[0.0037]	**[0.0018]**	[0.0049]	**[0.0019]**	[0.0049]
LackofCorruption	-0.0012	0.0016	-0.0010	0.0016	-0.0012	0.0003	-0.0010	0.0003
	[0.0017]	[0.0044]	[0.0017]	[0.0044]	[0.0017]	[0.0057]	[0.0017]	[0.0057]
Loan Variables								
InvestmentGrade	**-1.2020*****		**-1.2010*****		**-1.2020*****		**-1.2010*****	
	[0.0552]		**[0.0541]**		**[0.0554]**		**[0.0543]**	
RatedBorrower	-0.0585		-0.0588		-0.0590		-0.0594	
	[0.0393]		[0.0387]		[0.0392]		[0.0386]	
LogDealValue	**-0.0880*****		**-0.0882*****		**-0.0880*****		**-0.0882*****	
	[0.0132]		**[0.0132]**		**[0.0132]**		**[0.0132]**	
DealMaturity	-0.0003		-0.0005		-0.0003		-0.0005	
	[0.0064]		[0.0064]		[0.0063]		[0.0064]	
MajorCurrencyDenomination	0.0734		0.0755		0.0737		0.0759	
	[0.0637]		[0.0635]		[0.0639]		[0.0636]	
ForeignCurrencyDenomination	**0.1310*****		**0.1300*****		**0.1310*****		**0.1300*****	
	[0.0289]		**[0.0287]**		**[0.0289]**		**[0.0287]**	
DomesticBank	-0.0194		-0.0183		-0.0195		-0.0183	
	[0.0614]		[0.0613]		[0.0612]		[0.0611]	
Firm Variables								
Size	**-0.0468*****	**0.3580*****	**-0.0464*****	**0.3580*****	**-0.0443*****	**0.2600*****	**-0.0438*****	**0.2600*****
	[0.0151]	**[0.0135]**	**[0.0152]**	**[0.0135]**	**[0.0162]**	**[0.0152]**	**[0.0162]**	**[0.0152]**
Leverage	**0.3760*****	**0.0456*****	**0.3780*****	**0.0456*****	**0.3730*****	**0.2520****	**0.3760*****	**0.2520****
	[0.0897]	**[0.0087]**	**[0.0897]**	**[0.0087]**	**[0.0903]**	**[0.1060]**	**[0.0902]**	**[0.1060]**
Profitability	0.0930	**0.0016*****	0.0929	**0.0016*****	0.0960	0.0301	0.0959	0.0301
	[0.1780]	**[0.0003]**	[0.1780]	**[0.0003]**	[0.1810]	[0.1160]	[0.1810]	[0.1160]
GrowthOpportunities	**-0.0535*****	**0.0313*****	**-0.0534*****	**0.0313*****	**-0.0565*****	**0.1260*****	**-0.0564*****	**0.1260*****
	[0.0144]	**[0.0046]**	**[0.0145]**	**[0.0046]**	**[0.0157]**	**[0.0273]**	**[0.0158]**	**[0.0273]**
Tangibility	**-0.1270*****	**0.6000*****	**-0.1270*****	**0.6000*****	**-0.1240*****	**0.3480****	**-0.1240*****	**0.3480****
	[0.0413]	**[0.1370]**	**[0.0411]**	**[0.1370]**	**[0.0408]**	**[0.1410]**	**[0.0408]**	**[0.1410]**
Lambda	-0.0370		-0.0368		-0.0408		-0.0405	
	[0.0254]		[0.0252]		[0.0501]		[0.0498]	
Observations	196,157	196,157	196,157	196,157	20,382	20,382	20,382	20,382

Notes: This table reports the results for the Heckman selection model. Dependent variable in the second step (columns 1, 3, 5, and 7) is the natural logarithm of the syndicated loan spread. Dependent variable in the first step (columns 2, 4, 6, and 8) is a dummy that is 1 if the spread variable is nonmissing. In columns 1-4, the Worldscope sample is considered as all firms. In columns 5-8, only firms that have issued at least one loan during 1990-2011. In all first-step regressions, the probability of issuing a loan is regressed on a measure of external finance dependence (constructed following Rajan and Zingales, 1998), firm and country variables, and industry, year and firm fixed effects. In all second-step regressions, country, industry, and year fixed effects are included. Also included are indicator variables for the purpose and type of loan. Robust standard errors are clustered at the country level. Statistically significant coefficients are shown in **bold**. ***, **, and * denote significance at the 1, 5, and 10 percent level, respectively.

Table 9. Robustness

	Additional control variables			Alternative definition of large consolidation	Alternative definition of fiscal consolidation							
					All alternative episodes				Matching alternative episodes			
					OLS		IV		OLS		IV	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
FiscalConsolidation	**0.0258***	**0.0279***	**0.0449****	**0.1020****								
	[0.0128]	**[0.0155]**	**[0.0199]**	**[0.0415]**								
FiscalConsolidation, lagged	0.0331											
	[0.0336]											
RealGDPGrowth, lagged		**-0.0366****										
		[0.0148]										
InstitutionalInvestorCreditRating			0.0063									
			[0.0054]									
FiscalConsolidation * Large				**-0.0819***								
				[0.0449]								
FiscalConsolidation, CAPB-based					0.0083	0.0415	**0.0527***	**0.1390****	-0.0220	0.0159	**0.0413***	**0.1430*****
					[0.0140]	[0.0299]	**[0.0305]**	**[0.0583]**	[0.0173]	[0.0412]	**[0.0213]**	**[0.0336]**
FiscalConsolidation, CAPB-based > 1.5% GDP						-0.0347		**-0.1210****		-0.0423		**-0.1520*****
						[0.0320]		**[0.0495]**		[0.0465]		**[0.0299]**
Observations	4,967	4,967	4,967	4,967	4,967	4,967	4,967	4,967	4,967	4,967	4,967	4,967
R-squared	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61

Notes: Dependent variable is the natural logarithm of the syndicated loan spread. In column 1, lagged fiscal consolidation, in addition to the contemporaneous value, is included. In column 2, lagged real GDP growth, in addition to the contemporaneous value, is included. In column 3, the sovereign credit rating index from Institutional Investor is used instead of the Moody's rating. In column 4, large consolidations are defined as those exceeding 1.5 percent of GDP or those exceeding 1 percent of GDP in two consecutive years, following Alesina and Ardagna (2010). In columns 5-12, fiscal consolidations are identified using the standard, CAPB-based approach, following Alesina and Ardagna (2010). In columns 5-8, all fiscal consolidations under this alternative definition are used. In columns 9-12, only the episodes that are identified as consolidation under both the action-based and CAPB-based approaches are used. Columns 1-6 and 9-10 are estimated using ordinary least squares while columns 7-8 and 11-12 are estimated using instrumental variables approach, where the CAPB-based measure of fiscal consolidation is instrumented by the action-based measure of fiscal consolidation. Country, industry, and year fixed effects are included. Also included are indicator variables for the purpose and type of loan. In all regressions the country-level (SovereignRating, SovereignDebt, ExchangeRate-change, InterestRate-change, InterestRate-level, LogRealGDP, RealGDPGrowth, StockMarketTurnover, TradeOpenness, Inflation, GovernmentStability, Law&Order, LackofCorruption), loan-level (InvestmentGrade, RatedBorrower, LogDealValue, DealMaturity, MajorCurrrencyDenomination, ForeignCurrencyDenomination, DomesticBank), and firm-level (Size, Leverage, Profitability, GrowthOpportunities, Tangibility) variables displayed in Table 3 are also included; coefficients on these variables are comparable to those in Table 3 and are omitted from this table for the sake of space. Robust standard errors are clustered at the country level. Statistically significant coefficients are shown in **bold**. ***, **, and * denote significance at the 1, 5, and 10 percent level, respectively.