

The Hidden Face of Fiscal Consolidation: Human Development is Hurt!

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Abstract

We investigate the impact of fiscal consolidation on human development. We find that fiscal austerity is associated with a reduction of human development standards, with the negative effect being particularly severe in the case of spending-driven consolidation episodes. Fiscal adjustments are especially damaging for well-being in developing countries (namely, African and Latin American countries). Additionally, the empirical evidence shows that: (i) government stability is a crucial institutional determinant of human development; and (ii) while investment in physical capital can boost human development, government consumption and inflation are detrimental for well-being.

JEL: Human development, fiscal consolidation, political, economic and social determinants, risk rating.

Keywords: C33, H30, H51, H52, I31.

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"We sinned against the dignity of the people in Greece, Portugal and sometimes Ireland."

- Jean Claude Juncker, 19 February 2015

1. Introduction

The investigation of the determinants of economic growth and development has been at the cornerstone of a large body of the theoretical and empirical literature. Yet, the majority of the works have typically focused on the key drivers of the level of income per capita and its growth rate (Blinder and Giorgiadis, 2010), which neglects other crucial dimensions of the whole set of economic opportunities that are available to individuals (Sen, 1999).

It is well known that data about national income does not provide information about the composition of income or the real beneficiaries. Moreover, economic agents frequently value achievements, such as better education and health services, broader participation in economic, cultural and political activities of the local community, improvements in working conditions and security against crime and physical violence, that are not necessarily reflected in higher income or output growth.

In this context, it seems sensible to consider other dimensions of economic development, instead of merely considering income, when investigating the face of human development. Moreover, the existing works aimed at assessing the drivers of a country's well-being have generally focused on the influence of a series of macroeconomic, political and institutional time-varying indicators that also affect output growth and, thus, impact human development.

In the aftermath of the Great Recession and, in particular, the subsequent emergence of the sovereign debt crisis, a great deal of attention has shifted to the need to understand the macroeconomic and social effects of fiscal consolidation and austerity packages designed and implemented with the goal of restoring sound public finances in many developed countries around the world.

Despite this, the collective pressure to be tough on deficits appears to have led to business cycle de-synchronization (Mallick and Mohsin, 2007, 2010; Rafiq and Mallick, 2008) and, most importantly, to a growing sense of unfairness of the adopted measures (Agnello and Sousa, 2014). Additionally, while in the European context there seems to be an emphasis on the role of fiscal consolidation as a pre-requisite for sustainable growth, other countries such as the US and the UK have recognized the hurt on growth caused by fiscal austerity. For instance, Mallick and Granville (2005) show that fiscal consolidation only provides a temporary and unsustainable solution to poverty reduction. Agnello et al. (2013) show that while cuts in government spending may be a way of bringing public debt back into a sustainable path, a fiscal framework that guarantees discipline among governments may be needed as device to credibly shorten the length of fiscal consolidation episodes.

Indeed, the controversy associated with austerity policies relates to the fact that they may lead to deeper recessions, thus, having long-lasting effects not only on the real economic activity, but also on other dimensions of well-being, such as education and health. For example, Agnello and Sousa (2014) show that income inequality significantly rises during periods of fiscal consolidation, with spending-driven cuts being particularly harmful for the distribution of income.

Moreover, by unnecessarily prolonging the economic crisis (IMF, 2013), fiscal consolidation measures might end up being ineffective, worsen labour market conditions and lead to a substantial rise in unemployment (Agnello et al., 2014). According to ILO (2014), the current fiscal consolidation measures have largely reduced the funds available for social programs, especially, those directed to the most vulnerable groups of women. Schaltegger and Weder (2014) also show that the Eurozone sovereign debt crisis and the subsequent policy responses disproportionately affected the vulnerable population. Armingeon et al. (2014) find that fiscal adjustment programs are typically associated with a retrenchment of public social expenditures and, thus, the welfare state. However, substantial cuts to social security require a broad pro-reform coalition, as austerity measures are electorally and politically risky.

Against this background, our paper empirically analyses a different dimension of fiscal consolidation. More specifically, we investigate the impact of fiscal austerity on human development. In fact, although fiscal consolidation is widely discussed in the economic literature, there is still a substantial lack of empirical evidence about its impact on well-being.

We find that fiscal consolidation episodes are associated with a deterioration of human development. Moreover, while this dimension of well-being substantially worsens when fiscal consolidation is achieved via spending cuts, it is not affected by tax-driven austerity measures.

Splitting the sample into sub-groups, our findings suggest that fiscal consolidation does not significantly impact human development process in OECD countries, but developing countries experience a large decline in well-being during periods of austerity.

When we consider the geographical dimension, we find that, in European countries, human development appears to be relatively immune to fiscal consolidation efforts. However, human development in Latin American and, especially, African countries is particularly vulnerable and strongly hit by fiscal adjustments.

Additionally, our results show that: (i) among the set of institutional variables that explain human development, government stability is particularly important; and (ii) macroeconomic conditions matter and while government consumption and inflation are detrimental for human development, investment in physical capital tends to improve it.

Human development is a broad measure that covers multi-dimension aspects of economic development, especially, education, health and income. Thus, our work is highly indebted and simultaneously inspired by the research of Binder and Georgiadis (2010) and Antonakakis and Collins (2014a, 2014b). Binder and Georgiadis (2010) highlight that macroeconomic policies have a stronger impact on human development than economic conditions. Additionally, fiscal stimuli episodes associated with a rise in government consumption have an expansionary (contractionary) effect in countries with low (high) institutional quality. Antonakakis and Collins (2014a, 2014b) rely on data for Eurozone peripheral countries (i.e. Greece, Ireland, Italy, Portugal and Spain),

which recently implemented fiscal consolidation efforts, and document a significant effect on suicide mortality.

Our paper tries to contribute to this literature along various dimensions. First, we pay a special attention to the identification of fiscal consolidation episodes and use a statistical approach based on the work of Alesina and Ardagna (1998), which focuses on variation in the cyclically adjusted primary budget balance (CAPB). Second, we consider different dimensions of the fiscal consolidation program (namely, the timing, the duration and the composition) thereby, distinguishing between measures that are led by expenditure cuts and those that are driven by tax hikes. Third, we cover a large set of countries for which data on human development are available, which allows us to include both countries that have undergone fiscal consolidation programs and those that did not experience periods of fiscal adjustment. Finally, we account for changes in a wide range of macroeconomic, political, social, risk and geographical drivers of human development.

The rest of the paper is organized as follows. Section 2 presents the related literature. Section 3 discusses the econometric methodology. Section 4 describes the data. Section 5 provides the empirical results. Finally, Section 6 concludes.

2. Literature Review

The long-run economic development has been at the core of theoretical and empirical research for several years. Not surprisingly, a vast number of works have tried to construct measures of wellbeing. Indeed, the 1990 Human Development Report and the seminal research by Fukuda-Parr and Shiva Kumar (2003) have set the stage for much of the subsequent investigation that followed.

According to Ul Haq (1995), the Human Development Indicator (hereforth, HDI) index has three main features. First, it measures well-being and not just income. Second, it includes both economic and social dimensions of well-being. Third, its coverage and methodology is flexible enough to allow a measure of multi-dimensional wellbeing. Alkire (2007), Comim et al. (2008) and

Molina and Purser (2010) also point out that the HDI index allows for simple, replicable and comparable cross-country and within-country measures of human development. Ranis et al. (2005) show that under-five child mortality is highly correlated with and a good proxy for the HDI index. Wolfers (2009) finds that income per capita is highly correlated with HDI ranking. By contrast, Rodriguez (2009) emphasizes that the HDI index is more useful for comparisons of well-being at a given point in time than for assessing its driving forces over time. Along the same line, Srinivasan (1994) argues that the correlation between the set of indicators included in the HDI index is high, thus, casting doubts about the relevance of aggregating such information into a single index. Behrman and Rosenzweig (1994) highlight that data for each of the sub-components of the HDI index is not always readily available.

Another strand of the literature has focused on modelling long-run social and economic trends, by looking at the dynamics of the GDP growth and life expectancy and health outcomes. In this context, the works on the GDP growth suggest that, accounting for initial level of GDP per capita, there is cross-country ("conditional") convergence over time (Barro 1991; Barro and Sala-i-Martin 1992). Quah (1996) claims that the empirical evidence supports the existence of "club convergence", as countries that are structurally different display divergence or weak convergence. Using data for India, the UK and the US, Kenny (2005) finds that there is long-term convergence of education, health and infrastructure measures. By contrast, Pritchett (1997) and Bourguignon et al. (2004) uncover large divergence across countries un-weighted by population, but the latter also find income converge when weighting by population.

As for the research on life expectancy and health outcomes, the majority of works tend to focus on child mortality rather than life-expectancy (Deaton, 2003, 2006). Cutler, Deaton and Lleras-Muney (2005) show that, despite the increase in life-expectancy over the past 30 years, the disparities between the developed and developing world have been unequally distributed. Moreover, changes in sanitation and water conditions and low-cost treatments for infectious and respiratory diseases are key determinants of the improvement in child mortality, after controlling for

income. Deaton (2003) investigates the relationship between health outcomes and income, and suggests that by affecting various economic and social dimensions, such as education, control, rank or wealth, income is not independent of health status. Additionally, Deaton (2006) highlights that social factors play an important role at the provision of health services, and Molina and Purser (2010) focus on the level of female fertility and the female schooling attainment as explaining trends in the child mortality rate.

Nevertheless, some authors also analyse the relevance of improvements in life-expectancy for the dynamics of human development. For instance, Gladstone (2010) emphasizes the rise of the old inactive population rises as a share of the young active population. Bloom and Friedman (1997), Bloom and Williamson (1998) and Bloom et al. (2003) also show that the drop in the economic dependency ratio has an impact on how human development evolves over time. Bloom et al. (2007) specifically highlight the drop in fertility rates and the increase in female labor market participation and schooling rates. Timmer and Akkus (2008) assess the gender determinants of long-term human development.

Being a broad measure that captures different economic and social faces and in the light of the ongoing debate about the ultimate consequences of fiscal austerity measures put in place in the aftermath of the financial turmoil of 2008-2009 and the subsequent sovereign debt crisis, it is natural to ask whether the fiscal/political context might also affect the dynamics of human development.

However, the existing studies have typically focused on the distributional effects of fiscal policy. For instance, Wolff and Zacharias (2007) emphasize that income inequality is significantly reduced via an increase in net government spending. Smeeding (2000, 2002) find a positive relationship between fiscal consolidation and both income gap and poverty at the individual (inter-personal) level. Mulas-Granados (2005) shows that fiscal adjustments influence the trade-off between economic growth and income inequality. Using data for a panel of 18 industrialized countries over the period 1978-2009, Agnello and Sousa (2014) highlight that periods of fiscal

consolidation are associated with a rise in income inequality. Moreover, while austerity measures that are driven by spending cuts are particularly detrimental for income distribution, tax hikes tend to be more equitable. Agnello et al. (2015) show that national fiscal consolidations can also be detrimental to the level income inequality across European regions, as adjustment programs increase the dispersion of regional income.

Some related work in this area suggests that political freedom (Zavaleta, 2007; Alkire, 2008) and political abilities (Whitehead and Gray Molina, 2003) help to capture some of the time-variation that we observe in a multivariate index of human development. Other authors look at the effects of the economic crisis and the fiscal adjustments on health conditions in the Eurozone periphery, and find a negative effect (Gili et al., 2013; Roca et al., 2013; Vadoros et al., 2013; Zavras et al., 2013). Stuckler et al. (2009) uncover a favourable health trend during recessions and De Vogli (2014) shows that economic policies aimed at reducing income inequality and protecting the most disadvantaged groups of the population are effective at breaking the positive relationship between job losses and suicides. Kentikelenis et al. (2012), Fountoulakis et al. (2012), Karanikolos et al. (2013) and Antonakakis and Collins (2014a, 2014b) also find robust evidence of a positive link between fiscal consolidation and suicide mortality. In particular, Antonakakis and Collins (2014b) show that fiscal consolidation leads to an increase in suicide mortality, and this effect is gender, age and time-specific, that is, it affects more severely the male population, at the old age and over the long-run.

Moreover, it is important to highlight that while the purpose and ultimate goal behind any economic policy intervention is to contribute to a more efficient allocation of resources, the core of the policy analysis areas has been explored via the quantification of the impact of macroeconomic policies on issues such as poverty reduction or unemployment or, to a less extent, on specific dimensions of economic development such as health and well-being (Subramanian et al., 2002; Acemoglu et al., 2003; Andrés, 2005; Suhrcke et al., 2006). For instance, Binder and Georgiadis (2010) investigate the determinants of economic development in a panel of 84 countries over the

period 1970-2005. The authors emphasize the role played by macroeconomic policies and the differences in countries' persistent characteristics, such as their social norms and institutions. Similarly, Islam (1995) and Evans (1996) emphasize the importance of the institutional and political environment.

Yet, some relevant questions are still unanswered. What are the effects of fiscal consolidation measures on human development? Does the length of the fiscal consolidation process matter for the dynamics of well-being? How important is the composition of fiscal consolidation? Are government spending cuts more likely to affect human development than tax hikes? Is the impact of fiscal consolidation on human development substantially different between developed and developing countries? Thus, we consider a 'hidden' dimension of fiscal consolidation that has not been explored so far: its impact on human development. This is an important gap that we try to fill with the current study.

3. Econometric Methodology

We employ a panel data approach to test for the impact of fiscal consolidation on the growth rate of the human development index ($HDIgr$). Therefore, we estimate the following model:

$$HDIgr_{it} = \alpha_i + \gamma HDIgr_{it-1} + \beta Consol_{it} + \delta' Pol_{it} + \theta' Eco_{it} + \lambda' DR_{it} + \varphi' RR_{it} + \varepsilon_{it}, \quad (1)$$

where $Consol_{it}$ is a proxy for the fiscal consolidation variable for country i at time t , Pol_{it} is a vector of political variables, Eco_{it} is the set of macroeconomic determinants, DR_{it} is a vector that controls for social variables (i.e. demographic and religious variables), RR_{it} comprises information about the several dimensions of a country's rating risk, α_i represents fixed-effects that capture unobserved country-specific determinants, and ε_{it} is a white-noise residual satisfying the usual assumptions of zero mean and constant variance.

We develop our analysis by considering the traditional fixed-effects (FE) panel data estimator. This estimator is usually biased and inconsistent when the model is dynamic. However, it

is consistent as T becomes large. Given the relatively long time dimension of our sample (1970-2013), the bias due to the correlation between the lagged dependent variable and the country-specific effects is not problematic. Nevertheless, as a robustness check, we assess the sensitivity of our results after accounting for potential outliers. We also employ the Instrumental Variable-Generalised Least Squares (IV-GLS) and the Arellano and Bond (1991) difference-GMM estimators to control for possible endogeneity concerns. Moreover, we confirm that our results are invariant to the statistical definition used in the identification of the fiscal consolidation episodes.

4. Data

We start by using a panel dataset consisting of 182 sovereign states. However, the presence of missing values for some variables (mainly, for developing countries) reduce the number of countries to at most 91.

The Human Development Index is a measure of the average achievement in key dimensions of human development, namely: 1) a long and healthy life; 2) being knowledgeable; and 3) a decent standard of living. The HDI index is the geometric mean of normalized indices for each of the three dimensions is data are provided by the United Nations Development Programme.

Several fiscal consolidation variables are considered in the analysis. In order to identify fiscal consolidation episodes, we follow Alesina and Ardagna's (1998) approach. The authors analyse periods of improvement of the cyclically adjusted primary balance (CAPB) that amount to at least 1.5 per cent of GDP in a single year. Alternatively, fiscal consolidation episodes correspond to periods of cumulative changes in the cyclically adjusted primary balance (CAPB) that amount to at least 5, 4 or 3 percentage points of GDP in, respectively, 4, 3 or 2 years.¹ Having identified these event, we focus on the following set of variables:

¹ We should add that our results are invariant to the statistical definition used to identify fiscal consolidation episodes. In fact, the empirical findings remain qualitatively unchanged when we rely instead on Giavazzi and Pagano's (1996) approach (under which a fiscal episode consists of a change in the CAPB of at least 2 percent of GDP in one year or at least 1.5 percent on average in the last two years). For brevity, these results are not reported in the paper, but are available upon request.

- *Consolidation*: It is a dummy variable that takes the value of one in the year during which a fiscal consolidation program is implemented, and zero otherwise.
- *Dur_Consol*: It counts the duration (in years) of the fiscal consolidation program.
- *Spend_Consol*: It is a dummy variable that takes the value of one in the years during which a spending-driven fiscal consolidation is implemented, and zero otherwise. This is defined as the change in the primary expenditure (as percentage of GDP) that is larger than 50% of the overall change in the CAPB (as percentage of GDP).
- *Dur_Spend_Consol*: It counts the duration (in years) of a spending-driven fiscal consolidation program.
- *Tax_Consol*: It is a dummy variable that takes the value of one in the years during which a tax-driven fiscal consolidation is implemented, and zero otherwise.
- *Dur_Tax_Consol*: It counts the duration of a tax-driven fiscal consolidation program.

The set of political conditionings (*Pol*) is provided by the International Country Risk Guide (ICRG) and the Polity IV database and includes the following variables:

- *GovStab*: Government stability, which measures the government's ability to carry out its declared program(s) and its stability to stay in office. The assigned risk rating is the sum of three sub-components (i.e. government unity, legislative strength and popular support), each with a maximum score of four points and a minimum score of zero points. A score of four points equates to "Very Low Risk" and a score of zero points denotes "Very High Risk".
- *Polity2*: This variable describes how democratic a country is. It subtracts the country's score in an "Autocracy" index from its score in a "Democracy" index and produces a polity scale ranging from -10 (strongly autocratic) to +10 (strongly democratic).

The set of macroeconomic variables (*Eco*) is gathered from the International Monetary Fund's (IMF) International Financial Statistics (IFS) and includes:

- *GovCons_pc*: The log of per capita public consumption.
- *Inv_pc*: The log of per capita investment, i.e. total gross-fixed capital formation.
- *Openness*: The log of the degree of openness, i.e. imports plus exports over GDP.
- *Inflation*: Inflation rate (in percentage).

To control for demographic and religious issues (*DR*), we also include the following variables among the set of regressors:

- *UrbanPop*: The log of urban population, which is collected from the World Bank's World Development Indicators (WDI).
- *ReligiousTensions*: It measures the degree of the religious tensions, in a scale from 0 to 6, and is provided by the International Country Risk Guide (ICRG).²

Finally, we control for the rating risk (*RR*) at the economic, financial and political levels. In general terms, if the points awarded are less than 50% of the total, that component can be considered as very high risk. If the points are in the 50-60% range it is high risk, in the 60%-70% range moderate risk, in the 70-80% range low risk and in the 80-100% range very low risk. The data for the respective variables were collected from the International Country Risk Guide (ICRG) and the respective variables are defined as follows:

- *EcoRiskRating*: The economic risk rating index includes annual inflation rate, budget balance as a percentage of GDP, current account as a percentage of GDP, GDP per head and real GDP growth.
- *FinRiskRating*: The financial risk rating index includes current account as a percentage of exports of goods and services, exchange rate stability, foreign debt as a

² Religious tensions may stem from the domination of society and/or governance by a single religious group that seeks to replace civil law by religious law and to exclude other religions from the political and/or social process; the desire of a single religious group to dominate governance; the suppression of religious freedom; and the desire of a religious group to express its own identity, separate from the country as a whole.

percentage of GDP, foreign debt service as a percentage of exports of goods and services, and net international liquidity as months of import cover.

- *PolRiskRating*: The political risk rating index includes the investment profile (that accounts for factors affecting the risk to investment that are not covered by other economic and financial risk components), government stability (which attempts to capture the extent to which the government is able to carry out its policies, as well as its ability to stay in office), and a measure of socioeconomic conditions (to assess the socio-economic pressures, which could constrain government action or fuel social discontent).

5. Empirical Results

In this section, we present and discuss the empirical results. We start by investigating whether fiscal consolidation impacts on human development (section 5.1). We then broaden the scope of our analysis by assessing the extent to which such relationship depends on the composition of fiscal consolidation i.e. whether austerity packages that are led by spending cuts or by tax hikes matter for human development (section 5.2). Additionally, we explore the sensitivity of the results to different samples of countries (sections 5.3 and 5.4). Finally, we consider alternative estimators (section 5.5).

5.1. Human Development and Fiscal Consolidation

We begin by analysing the effect of fiscal consolidation on human development. The results are summarized in Table 1. In Column 1, we test for the dependence of the human development process on the occurrence of fiscal consolidation episodes. Then, we assess the statistical significance of a set of political (Column 2), macroeconomic and social variables (Columns 3 and 4), and country risk indicators (Column 5). Finally, we replace the fiscal consolidation dummy

variable *Consolidation* with the discrete variables *Dur_Consol* (Column 6) to control for the influence of the length of the fiscal consolidation program (i.e. to account for the *duration effects*).

Column 1 indicates that the implementation of fiscal consolidation programs generates an adverse outcome for human development. In particular, the negative sign of the coefficient associated with the consolidation dummy variable (-0.0675) suggests that fiscal adjustments are detrimental for human development: the growth rate of the HDI index falls by around 0.07 percentage points when a fiscal consolidation episode occurs. This evidence is consistent with the view that although pressures to control the public deficit may force governments to implement large fiscal adjustment plans with the aim of improving the cyclically-adjusted budget balance, cuts in growth-enhancing public expenditure - such as, capital investment and social spending - and tax hikes typically affect low-income classes and the most vulnerable categories of the population. Thus, by negatively impacting on living standards, health services and educational attainment (i.e. the three key dimension of the human development index), austerity measures undermine the human development process.

Looking at the estimates reported in Columns 2-5, we note that the negative effect of fiscal consolidation on human development remains sizeable and highly significant even when additional control variables are gradually included in the model. More specifically and depending on the model specification, fiscal austerity programs lead to a fall of the HDI growth rate that ranges between -0.11 to -0.14 percentage points.

Among the set of institutional variables, we uncover an important role for government stability. The high statistical significance of the coefficient associated with the variable *GovStab* suggests that a stronger ability of the government to stay in office and to carry out its policies is beneficial for the development of nations.

Despite not being statistically significant, we also note that the coefficient associated with the variable *Polity2* enters with positive sign. This is consistent with the view that, by promoting

dignity and fundamental rights of an individual, democracy instils social justice and can be regarded as a potential driver of social and economic development (UNDP, 2002).

The results summarized in Columns 3-4 suggest that macroeconomic conditions also matter for human development. In fact, except for trade openness, all the economic control variables play a significant role. In particular, government consumption enters the model with a negative sign, while the coefficient associated with the investment in physical capital is positive, thus, corroborating the findings of Barro and Sala-i-Martin (2003). In addition, inflation negatively impacts on human development, which is consistent with the view that low inflation provides a stable framework for long-term decision making and boosts the development of nations.

The evidence that the macroeconomic environment is fundamental to human development is also confirmed by the results reported in Column 5. In fact, the sign and the significance of the coefficient associated with the economic risk rating indicator show that the better the economic assessment (i.e. the higher the value of the index), the larger the amount of money that institutional and international investors (i.e. banks, commercial partners and multinational corporations) decide to save and/or invest in a specific country with positive effects for human development. Interestingly, our estimates also show that the economic risk outweighs both political and financial risk (with is never statistically significant). Thus, it seems that a poor political risk rating is compensated by a better economic risk rating. As a result, a one point increase in the economic risk rating index significantly increases the growth rate of human development by about 0.02 percentage points.

The results concerning the social variables show that their statistical significance varies across model specifications (Columns 4-6). As such, they do not provide a clear cut answer about the importance of population growth and religious tensions in terms of shaping human development.

In column 6, it can be seen that long-lasting austerity programs are harmful for human development. In fact, the duration of fiscal consolidation measures has a negative and significant

effect on the dependent variable. The major conclusions regarding the role of political and economic factors remain unchanged

Finally, all Columns show that human development growth exhibits a reasonable degree of persistence, as the coefficient associated to the lagged dependent variable is highly significant. This evidence holds regardless of the model specification and, therefore, it supports the use of the dynamic panel framework.

[Insert Table 1 here]

5.2. Human Development and Composition of Fiscal Consolidation

Our previous empirical findings show that the adoption of fiscal austerity plans is detrimental for human development *per se*. However, one interesting question remains: to which extent do such negative effects depend on whether fiscal consolidation is led by tax hikes and spending cuts? To address this question, we distinguish between spending- and tax-driven austerity programmes depending on which side of the fiscal stance (i.e. either tax hikes or expenditure cuts as percentage of GDP) prevails. Then, we replace the fiscal consolidation dummy variable with the two alternative dummy variables presented in Section 4 (i.e. *Spend_Consol* and *Tax_Consol*) and re-estimate model (1).

The results are shown in Tables 2 and 3. Interestingly, we find that the HDI growth rate substantially declines when fiscal consolidation is achieved via spending cuts (Table 2), while it is not significantly affected by tax-driven austerity programmes (Table 3). More specifically, regardless the model specification, the coefficients associated with spending-driven consolidations are always highly significant and negative: Columns 1-5 show that during periods of large adjustments in government spending, the change of the HDI growth rate ranges between -0.13 and -0.22 percentage points, i.e. higher than the estimates reported in Table 1. By contrast, the coefficients linked with tax-driven fiscal adjustments and reported in Table 3 are smaller and never

statistically significant, thereby, suggesting that their impact on human development growth is negligible.

From a policymaking point of view, these results suggest that development-friendly fiscal consolidations can be pursued by ending with the austerity programmes that mainly focus on expenditure cuts, notably in social areas (such as pensions, health services or family benefits) in favour of fiscal packages consisting of measures aimed at increasing public revenues (for instance, by taxing higher income categories and property wealth more strongly). The estimates reported in Column 6 of Tables 2 and 3 support our general conclusion that, regardless the composition of consolidation plans, excessively prolonged periods of consolidation are detrimental for HDI.

Finally, we note that our main conclusions regarding the importance of political and economic determinants of human development remain qualitatively unchanged and validate the general predictions of the baseline model (Table 1).

[Insert Table 2 here]

[Insert Table 3 here]

5.3. Evidence for OECD and Non-OECD countries

In Tables 4 and 5, we replicate the estimation of model (1) for developed (OECD) and developing (non-OECD) countries. Some interesting differences between the two groups emerge. While fiscal consolidation does not affect the human development process in OECD countries, developing countries experience a significant decline in the growth rate of HDI during austerity periods. This might be the result of the more growth-friendly nature of fiscal consolidation programmes adopted by developed countries.

As for the importance of the core set of economic, political and institutional determinants, we find that while the economic environment (as reflected by the economic risk rating index) matters for both country groups, political stability is an important driver of human development in

non-OECD countries only. Nevertheless, the evidence concerning the contribution of each macroeconomic variable to HDI growth is less clear-cut: although these variables tend to enter with the correct sign, their statistical significance varies across the two samples and alternative model specifications. This makes it difficult to provide specific policy prescriptions aimed at improving human development in OECD and non-OECD countries.

[Insert Table 4 here]

[Insert Table 5 here]

5.4. Regional Analysis

We now extend the analysis presented in section 5.3 by assessing whether the strength of the relationship between fiscal consolidation and human development growth varies across regions. For the sake of space, each column of Table 6 only reports the coefficients associated to the fiscal consolidation dummy variables obtained after the estimation of model (1) for different country subsamples (i.e. advanced economies (ADV), emerging markets (EME) and low-income countries (LIC)) and then by specific geographical regions (namely, Asia-Pacific (AP), Europe (EUR), Middle East and Central Asia (MECA), Sub-Saharan Africa (AFR) and Western Hemisphere (WH)).

Even though results should be interpreted cautiously due to the limited number of observations, we confirm that fiscal consolidation plans, and particularly those led by expenditure cuts, are harmful for human development in emerging countries. By contrast, the human development process in advanced economies and, notably, in European countries (Column 5) seems to be resistant to fiscal adjustments. Among the group of developing countries, human development in African countries is hit more strongly by fiscal consolidation episodes than Asia-Pacific countries.

[Insert Table 6 here]

5.5. Robustness

In this section, we subject our results to robustness checks that include the inspection of potential outliers and accounting for endogeneity. On the former, we use the Least Absolute Deviation (LAD) robust estimator. On the latter, we use a panel Instrumental Variable-Generalised Least Squares (IV-GLS) approach, which is then complemented by Arellano and Bond (1991) difference Generalised Methods of Moments (GMM). As is standard in the literature, the set of instruments includes the lags of the right-hand side variables.

The results are shown in Table 7 for a selection of our *Consol* variable, namely, the fiscal consolidation dummy variable, its duration, and its composition (i.e. spending versus tax-driven fiscal adjustments). The baseline equation includes the core of political, economic and social determinants of human development. While the magnitude of the coefficient estimates in Columns 1-4 is slightly reduced once outliers have been excluded from the sample, the positive impact of fiscal consolidation and its duration remain statistically significant. Moreover, we confirm that fiscal adjustments that are driven by cuts in government spending have a particularly detrimental effect on the growth rate of HDI.

When we account for possible endogeneity, the results are qualitatively similar but now the magnitude of the estimated coefficient of interest (*Consol*) is higher. Particularly in the case of the difference-GMM estimator, the coefficient estimate for the impact of fiscal consolidations almost doubles compared to the obtained estimate in Table 1. Finally, we highlight that the diagnostic assessments are satisfactory with the Hansen test for over-identifying restrictions not being rejected, therefore, confirming the validity of the chosen set of instruments in both the IV-GLS (Columns 5-8) and difference-GMM (Columns 9-12) cases.

[Insert Table 7 here]

6. Conclusion

With the emergence of the sovereign debt crisis, unprecedented fiscal austerity measures and bailout packages started to be implemented in many developed countries. These fiscal consolidation programs included large spending cuts, privatization of publicly owned assets, tax hikes and structural reforms, and were designed with the aim of achieving fiscal sustainability of public debt, promoting economic growth and restoring competitiveness. Despite this, today, many policymakers not only question the effectiveness of such measures, but also admit that they caused suffer to various economic and social dimensions of well-being.

In the current work, we investigate the impact of fiscal consolidation on human development. Our results clearly show that fiscal austerity leads to a significant fall in the growth rate of the HDI index. This negative effect is particularly strong in the case of spending-driven consolidation episodes, even though tax-driven austerity measures do not seem to affect human development in a significant manner. Fiscal consolidation is also especially deleterious in developing countries (namely, African and Asia-Pacific countries), which end up experiencing a large deterioration of well-being during austerity times.

Additionally, the empirical evidence suggests that: (i) government stability is a crucial politico-institutional determinant of human development; and (ii) among the set of macroeconomic indicators, investment in physical capital is beneficial for human development, but government consumption and inflation have a detrimental effect. As a result, the ability of the government to conduct its policy in a stable political environment has a positive impact on human development. Moreover, low inflation and high private investment rates tend to boost well-being.

From a policy perspective, our findings suggest that fiscal consolidation programs that are led by tax hikes are less likely to cause a deterioration of human development than spending-driven fiscal consolidation. Therefore, governments should favor measures, such as more progressivity of taxation or higher property taxes (i.e. measures aimed at increasing public revenue) and refrain from cutting social expenditure and expenditure in education and health (i.e. measures designed to reduce

government spending). Otherwise, human development will no longer be the "hidden" face of fiscal austerity, but rather its most "visible" one.

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List of Tables

Table 1. Baseline model.

Variables	(1)	(2)	(3)	(4)	(5)	(6)
<i>HDI_gr(-1)</i>	0.7134*** (0.0344)	0.6220*** (0.0437)	0.5781*** (0.0520)	0.5735*** (0.0542)	0.5305*** (0.0533)	0.5285*** (0.0531)
<i>GovStab</i>		0.0203*** (0.0075)	0.0186** (0.0087)	0.0214*** (0.0079)	0.0237*** (0.0076)	0.0241*** (0.0077)
<i>Polity2</i>		0.0040 (0.0049)	0.0069 (0.0078)	0.0091 (0.0081)	0.0090 (0.0087)	0.0090 (0.0087)
<i>GovCons_pc</i>			-0.1203** (0.0572)	-0.1223** (0.0570)	-0.1070** (0.0533)	-0.1087** (0.0533)
<i>Inv_pc</i>			0.1201* (0.0620)	0.1273** (0.0615)	0.0991* (0.0584)	0.1006* (0.0584)
<i>Openness</i>			-0.0019 (0.0556)	-0.0009 (0.0582)	-0.0159 (0.0632)	-0.0163 (0.0623)
<i>Inflation</i>			-0.0018* (0.0010)	-0.0023** (0.0011)	-0.0005 (0.0014)	-0.0005 (0.0014)
<i>UrbanPop</i>				-0.0826 (0.0998)	-0.1852* (0.0962)	-0.1873* (0.0971)
<i>ReligiousTensions</i>				-0.0559** (0.0279)	-0.0477 (0.0321)	-0.0479 (0.0321)
<i>EcoRiskRating</i>					0.0183*** (0.0041)	0.0185*** (0.0041)
<i>FinRiskRating</i>					0.0040 (0.0028)	0.0040 (0.0028)
<i>PolRiskRating</i>					-0.0054* (0.0030)	-0.0055* (0.0030)
<i>Consolidation</i>	-0.0675* (0.0348)	-0.1238*** (0.0328)	-0.1386*** (0.0448)	-0.1338*** (0.0464)	-0.1146*** (0.0371)	- -
<i>Dur_Consol</i>		- -	- -	- -	- -	-0.0702*** (0.0177)
<i>Constant</i>	0.2266*** (0.0282)	0.1320*** (0.0418)	0.1515 (0.3044)	1.7954 (1.5672)	2.9494* (1.5574)	2.9794* (1.5688)
Observations	2,647	2,198	1,742	1,742	1,738	1,738
R-squared	0.5351	0.4254	0.3877	0.3922	0.3805	0.3813
Number of countries	91	81	72	72	72	72

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 2. Spending-driven fiscal consolidation episodes.

Variables	(1)	(2)	(3)	(4)	(5)	(6)
<i>HDI_gr(-1)</i>	0.7115*** (0.0347)	0.6177*** (0.0446)	0.5718*** (0.0529)	0.5672*** (0.0549)	0.5273*** (0.0542)	0.5282*** (0.0545)
<i>GovStab</i>		0.0199*** (0.0074)	0.0181** (0.0085)	0.0212*** (0.0078)	0.0236*** (0.0076)	0.0233*** (0.0075)
<i>Polity2</i>		0.0044 (0.0051)	0.0077 (0.0080)	0.0101 (0.0082)	0.0098 (0.0088)	0.0095 (0.0088)
<i>GovCons_pc</i>			-0.1239** (0.0589)	-0.1266** (0.0585)	-0.1107** (0.0543)	-0.1098* (0.0554)
<i>Inv_pc</i>			0.1231* (0.0639)	0.1315** (0.0632)	0.1034* (0.0596)	0.1026* (0.0604)
<i>Openness</i>			-0.0020 (0.0557)	0.0031 (0.0584)	-0.0148 (0.0634)	-0.0229 (0.0616)
<i>Inflation</i>			-0.0016 (0.0011)	-0.0022* (0.0011)	-0.0005 (0.0014)	-0.0004 (0.0014)
<i>UrbanPop</i>				-0.0972 (0.0975)	-0.1895* (0.0963)	-0.1915* (0.0971)
<i>ReligiousTensions</i>				-0.0568** (0.0278)	-0.0484 (0.0318)	-0.0496 (0.0317)
<i>EcoRiskRating</i>					0.0177*** (0.0041)	0.0178*** (0.0041)
<i>FinRiskRating</i>					0.0035 (0.0028)	0.0036 (0.0029)
<i>PolRiskRating</i>					-0.0052* (0.0029)	-0.0050* (0.0029)
<i>Spend_Consol</i>	-0.1257*** (0.0400)	-0.1867*** (0.0513)	-0.2172*** (0.0753)	-0.2166*** (0.0760)	-0.1624*** (0.0612)	- -
<i>Dur_Spend_Consol</i>		- -	- -	- -	- -	-0.0762** (0.0338)
<i>Constant</i>	0.2280*** (0.0289)	0.1345*** (0.0414)	0.1449 (0.3032)	2.0180 (1.5253)	3.0466* (1.5516)	3.0994* (1.5617)
Observations	2,647	2,198	1,742	1,742	1,738	1,738
R-squared	0.5360	0.4268	0.3893	0.3940	0.3807	0.3789
Number of countries	91	81	72	72	72	72

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 3. Tax-driven fiscal consolidation episodes.

Variables	(1)	(2)	(3)	(4)	(5)	(6)
<i>HDI_gr(-1)</i>	0.7137*** (0.0348)	0.6247*** (0.0445)	0.5822*** (0.0535)	0.5773*** (0.0558)	0.5328*** (0.0535)	0.5324*** (0.0532)
<i>GovStab</i>		0.0200*** (0.0073)	0.0190** (0.0085)	0.0220*** (0.0078)	0.0234*** (0.0075)	0.0239*** (0.0075)
<i>Polity2</i>		0.0033 (0.0049)	0.0065 (0.0078)	0.0088 (0.0080)	0.0085 (0.0087)	0.0083 (0.0087)
<i>GovCons_pc</i>			-0.1120* (0.0573)	-0.1145** (0.0574)	-0.0997* (0.0533)	-0.1001* (0.0529)
<i>Inv_pc</i>			0.1121* (0.0617)	0.1201* (0.0615)	0.0919 (0.0582)	0.0919 (0.0578)
<i>Openness</i>			-0.0182 (0.0525)	-0.0151 (0.0560)	-0.0284 (0.0610)	-0.0272 (0.0611)
<i>Inflation</i>			-0.0016 (0.0011)	-0.0021* (0.0011)	-0.0003 (0.0014)	-0.0003 (0.0014)
<i>UrbanPop</i>				-0.0913 (0.1009)	-0.1918* (0.0970)	-0.1910* (0.0971)
<i>ReligiousTensions</i>				-0.0570** (0.0276)	-0.0497 (0.0318)	-0.0492 (0.0319)
<i>EcoRiskRating</i>					0.0189*** (0.0041)	0.0191*** (0.0041)
<i>FinRiskRating</i>					0.0039 (0.0029)	0.0040 (0.0028)
<i>PolRiskRating</i>					-0.0050* (0.0030)	-0.0052* (0.0030)
<i>Tax_Consol</i>	0.0122 (0.0493)	-0.0306 (0.0416)	-0.0396 (0.0497)	-0.0306 (0.0492)	-0.0526 (0.0462)	- -
<i>Dur_Tax_Consol</i>		- -	- -	- -	- -	-0.0491*** (0.0186)
<i>Constant</i>	0.2181*** (0.0282)	0.1234*** (0.0411)	0.2051 (0.2941)	1.9902 (1.5732)	3.0735* (1.5628)	3.0455* (1.5655)
Observations	2,647	2,198	1,742	1,742	1,738	1,738
R-squared	0.5342	0.4215	0.3833	0.3880	0.3775	0.3783
Number of countries	91	81	72	72	72	72

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 4. Evidence for OECD countries.

Variables	(1)	(2)	(3)	(4)	(5)	(6)
<i>HDI_gr(-1)</i>	0.6696*** (0.0509)	0.6602*** (0.0552)	0.5034*** (0.0708)	0.4919*** (0.0708)	0.4500*** (0.0744)	0.4494*** (0.0743)
<i>GovStab</i>		-0.0016 (0.0040)	0.0010 (0.0060)	0.0006 (0.0059)	0.0131 (0.0096)	0.0132 (0.0096)
<i>Polity2</i>		-0.0003 (0.0063)	-0.0082 (0.0099)	-0.0044 (0.0092)	-0.0153 (0.0094)	-0.0151 (0.0094)
<i>GovCons_pc</i>			-0.1558** (0.0752)	-0.1203 (0.0784)	-0.0488 (0.0752)	-0.0479 (0.0761)
<i>Inv_pc</i>			0.1548** (0.0679)	0.1433* (0.0744)	0.0587 (0.0715)	0.0575 (0.0725)
<i>Openness</i>			-0.2281** (0.1040)	-0.1761* (0.1021)	-0.2164* (0.1147)	-0.2152* (0.1147)
<i>Inflation</i>			-0.0310 (0.0659)	-0.0578 (0.0630)	0.0228 (0.0444)	0.0220 (0.0443)
<i>UrbanPop</i>				-0.4129*** (0.1349)	-0.3260* (0.1670)	-0.3269* (0.1670)
<i>ReligiousTensions</i>				0.0054 (0.0168)	0.0102 (0.0198)	0.0107 (0.0197)
<i>EcoRiskRating</i>					0.0230*** (0.0057)	0.0230*** (0.0057)
<i>FinRiskRating</i>					0.0052 (0.0034)	0.0053 (0.0034)
<i>PolRiskRating</i>					-0.0078* (0.0042)	-0.0078* (0.0042)
<i>Consolidation</i>	-0.0315* (0.0178)	-0.0389* (0.0209)	0.0124 (0.0249)	0.0075 (0.0239)	0.0125 (0.0189)	- -
<i>Dur_Consol</i>		- -	- -	- -	- -	0.0008 (0.0151)
<i>Constant</i>	0.1813*** (0.0298)	0.2020*** (0.0682)	1.2481* (0.6760)	8.1154*** (2.4384)	6.2256* (3.0329)	6.2344* (3.0324)
Observations	1,016	908	655	655	654	654
R-squared	0.4218	0.4086	0.3305	0.3374	0.3715	0.3714
Number of countries	33	32	26	26	26	26

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 5. Evidence for Non-OECD countries.

Variables	(1)	(2)	(3)	(4)	(5)	(6)
<i>HDI_gr(-1)</i>	0.7173*** (0.0365)	0.6120*** (0.0502)	0.5758*** (0.0565)	0.5700*** (0.0596)	0.5284*** (0.0591)	0.5251*** (0.0590)
<i>GovStab</i>		0.0317*** (0.0106)	0.0279** (0.0125)	0.0319*** (0.0110)	0.0303*** (0.0105)	0.0307*** (0.0105)
<i>Polity2</i>		0.0047 (0.0059)	0.0090 (0.0086)	0.0114 (0.0089)	0.0112 (0.0096)	0.0112 (0.0096)
<i>GovCons_pc</i>			-0.1091 (0.0662)	-0.1107* (0.0646)	-0.1122* (0.0627)	-0.1149* (0.0627)
<i>Inv_pc</i>			0.1080 (0.0707)	0.1146 (0.0690)	0.1045 (0.0673)	0.1068 (0.0672)
<i>Openness</i>			0.0358 (0.0640)	0.0395 (0.0690)	0.0195 (0.0739)	0.0155 (0.0725)
<i>Inflation</i>			-0.0013 (0.0011)	-0.0019* (0.0011)	-0.0007 (0.0014)	-0.0007 (0.0014)
<i>UrbanPop</i>				-0.0970 (0.1080)	-0.1490 (0.1185)	-0.1559 (0.1203)
<i>ReligiousTensions</i>				-0.0703** (0.0325)	-0.0627 (0.0381)	-0.0632 (0.0382)
<i>EcoRiskRating</i>					0.0187*** (0.0053)	0.0193*** (0.0053)
<i>FinRiskRating</i>					-0.0006 (0.0045)	-0.0006 (0.0045)
<i>PolRiskRating</i>					-0.0033 (0.0040)	-0.0033 (0.0040)
<i>Consolidation</i>	-0.0951* (0.0568)	-0.1943*** (0.0513)	-0.2234*** (0.0601)	-0.2175*** (0.0633)	-0.1866*** (0.0498)	-
<i>Dur_Consol</i>		-	-	-	-	-0.0986*** (0.0204)
<i>Constant</i>	0.2675*** (0.0353)	0.1404*** (0.0503)	0.0092 (0.3596)	1.9059 (1.6879)	2.3123 (1.9080)	2.4212 (1.9313)
Observations	1,631	1,290	1,087	1,087	1,084	1,084
R-squared	0.5460	0.4329	0.4037	0.4098	0.3924	0.3925
Number of countries	58	49	46	46	46	46

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 6. Alternative sampling and regional analysis.

Variables	(ADV)	(EME)	(LIC)	(AFR)	(EUR)	(AP)	(MECA)	(WH)
<i>Consolidation</i>	0.0054 (0.0239)	-0.1994*** (0.0571)	-0.1802** (0.0782)	-0.3343** (0.1236)	-0.0562 (0.0329)	0.1206* (0.0565)	-0.2719* (0.1149)	-0.0044 (0.0583)
<i>Dur_Consol</i>	-0.0202 (0.0184)	-0.0998*** (0.0243)	-0.0885*** (0.0309)	-0.2171** (0.0909)	-0.0351 (0.0230)	0.0364 (0.0418)	-0.1031** (0.0311)	-0.0154 (0.0227)
<i>Spend_Consol</i>	-0.0171 (0.0361)	-0.2763** (0.1099)	-0.3067** (0.1438)	-0.5096** (0.2127)	-0.0662 (0.0518)	-0.0714 (0.1337)	-0.4366 (0.2965)	-0.0596 (0.0571)
<i>Dur_Spend_Consol</i>	-0.0212 (0.0216)	-0.1349*** (0.0486)	-0.1415 (0.0872)	-0.1825 (0.1480)	-0.0195 (0.0350)	-0.0021 (0.0952)	-0.4221 (0.2195)	-0.0518 (0.0424)
<i>Tax_Consol</i>	0.0508 (0.0747)	-0.1444 (0.0848)	-0.0433 (0.0830)	-0.1042 (0.0865)	-0.0280 (0.0473)	0.1625 (0.2063)	-0.2027 (0.1312)	0.0255 (0.0805)
<i>Dur_Tax_Consol</i>	-0.0098 (0.0264)	-0.0743** (0.0313)	-0.0465 (0.0306)	-0.0506 (0.1221)	-0.0310 (0.0370)	0.0221 (0.0791)	-0.0859*** (0.0186)	-0.0068 (0.0273)

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Country groups: advanced economies (ADV), emerging markets (EME) and low-income countries (LIC); Geographical regions: Asia-Pacific (AP), Europe (EUR), Middle East and Central Asia (MECA), Sub-Saharan Africa (AFR) and Western Hemisphere (WH).

Table 7. Robustness to the use of alternative estimators

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Outlier -robust			IV-GLS				Difference-GMM				
<i>HDI_gr(-1)</i>	0.5134*** (0.0714)	0.5124*** (0.0712)	0.5054*** (0.0744)	0.5170*** (0.0721)	0.5401*** (0.0571)	0.5383*** (0.0571)	0.5348*** (0.0567)	0.5425*** (0.0578)	0.3842*** (0.1085)	0.3852*** (0.1083)	0.3712*** (0.1071)	0.3894*** (0.1139)
<i>GovStaba</i>	0.0219*** (0.0079)	0.0222*** (0.0080)	0.0218*** (0.0078)	0.0224*** (0.0080)	0.0235*** (0.0064)	0.0239*** (0.0064)	0.0232*** (0.0064)	0.0244*** (0.0065)	0.0380*** (0.0129)	0.0385*** (0.0128)	0.0380*** (0.0131)	0.0392*** (0.0127)
<i>Polity2</i>	0.0102 (0.0068)	0.0101 (0.0068)	0.0108 (0.0069)	0.0099 (0.0068)	0.0096 (0.0065)	0.0095 (0.0065)	0.0106 (0.0065)	0.0094 (0.0064)	0.0226* (0.0136)	0.0228* (0.0136)	0.0251* (0.0147)	0.0227 (0.0143)
<i>GovCons_pc</i>	-0.1863*** (0.0630)	-0.1872*** (0.0624)	-0.1892*** (0.0639)	-0.1783*** (0.0615)	-0.1145* (0.0688)	-0.1165* (0.0687)	-0.1190* (0.0692)	-0.1060 (0.0684)	-0.0726 (0.1081)	-0.0757 (0.1073)	-0.0755 (0.1135)	-0.0651 (0.1101)
<i>Inv_pc</i>	0.1857*** (0.0663)	0.1867*** (0.0657)	0.1884*** (0.0673)	0.1784*** (0.0647)	0.1188* (0.0702)	0.1207* (0.0700)	0.1232* (0.0705)	0.1108 (0.0698)	0.1172 (0.1083)	0.1197 (0.1072)	0.1155 (0.1159)	0.1110 (0.1088)
<i>Openness</i>	-0.0332 (0.0410)	-0.0347 (0.0408)	-0.0317 (0.0418)	-0.0451 (0.0411)	-0.0094 (0.0738)	-0.0093 (0.0734)	-0.0069 (0.0742)	-0.0225 (0.0714)	0.0925 (0.1166)	0.0856 (0.1154)	0.0964 (0.1094)	0.0668 (0.1084)
<i>Inflation</i>	-0.0026** (0.0012)	-0.0026** (0.0012)	-0.0025** (0.0012)	-0.0025** (0.0012)	-0.0024* (0.0012)	-0.0024** (0.0012)	-0.0023* (0.0013)	-0.0023* (0.0013)	-0.0051** (0.0021)	-0.0049** (0.0021)	-0.0046** (0.0021)	-0.0047** (0.0021)
<i>UrbanPop</i>	-0.0373 (0.0957)	-0.0403 (0.0952)	-0.0452 (0.0943)	-0.0432 (0.0962)	-0.0862 (0.1101)	-0.0887 (0.1101)	-0.0980 (0.1102)	-0.0950 (0.1100)	-0.6468*** (0.2144)	-0.6390*** (0.2164)	-0.6566*** (0.2085)	-0.6533*** (0.2206)
<i>ReligiousTensions</i>	-0.0593** (0.0272)	-0.0601** (0.0274)	-0.0609** (0.0274)	-0.0606** (0.0272)	-0.0605*** (0.0190)	-0.0610*** (0.0189)	-0.0613*** (0.0188)	-0.0617*** (0.0191)	-0.1331* (0.0792)	-0.1345* (0.0778)	-0.1281 (0.0804)	-0.1363* (0.0757)
<i>Consolidation</i>	-0.1065*** (0.0389)				-0.1189** (0.0475)				-0.2030** (0.0800)			
<i>Dur_Consol</i>		-0.0537*** (0.0154)				-0.0712*** (0.0263)				-0.1033** (0.0451)		
<i>Spend_Consol</i>			-0.1589** (0.0674)				-0.1941*** (0.0611)				-0.3650*** (0.1259)	
<i>Tax_Consol</i>				-0.0414 (0.0524)				-0.0277 (0.0714)				-0.0228 (0.0826)
<i>Constant</i>	1.0942 (1.5253)	1.1501 (1.5097)	1.2214 (1.4944)	1.2398 (1.5218)					11.5037*** (3.6298)	11.3925*** (3.6567)	11.5662*** (3.5595)	11.7114*** (3.7366)
Observations	1,578	1,578	1,578	1,578	1,676	1,676	1,676	1,676	1,670	1,670	1,670	1,670
R-squared	0.3461	0.3456	0.3469	0.3424	0.3536	0.3542	0.3551	0.3501				
Number of countries	71	71	71	71	72	72	72	72	72	72	72	72
Hansen (p-value)					0.4539	0.4449	0.5061	0.4023	0.501	0.464	0.461	0.525
AR(1)									0.001	0.001	0.000	0.001
AR(2)									0.202	0.217	0.301	0.261

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.