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Document de Travail n° 2024 – 50

Novembre 2024

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New fiscal transparency index and public debt borrowing costs

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November 2024

Abstract

This study examines the determinants of public debt borrowing costs, focusing particularly on the impact of fiscal transparency on sovereign bond rates. To assess this relationship, we construct a new Fiscal Transparency Index (FTI) inspired by the concepts of monetary transparency, incorporating the roles of all budgetary entities including independent fiscal institutions (IFIs), the government, the legislature, and the supreme audit institutions (SAI). This index encompasses dimensions of *political, economic, procedural, policy, and operational* transparency. Our analysis spans 27 developed and developing countries from 2006 to 2023. Findings indicate enhanced fiscal transparency correlates with reduced sovereign bond rates, especially regarding developing economies' long-term interest rates. Results are also robust to several controls, alternative measures, and modelisations.

Keywords: Fiscal Transparency, Sovereign bonds yields, Budget Process, Public Debt.
JEL Classification: E43, E62, H61, H63.

*Email: theo.metz@unistra.fr. The author thank Amélie Barbier-Gauchard, Thierry Betti, Sophie Bereau, Christina Badareau, Tobignaré Yabré and Eleonora Cavallaro for their helpfull comments. Also participants of the ERMEES seminar in Strasbourg, 10^{th} Journée Doctorale en Analyse des Politiques Publiques in Le Havre, Journée des doctorants du BETA in Nancy, 72^{nd} Annual Congress of the French Economic Association (AFSE) in Bordeaux, 6^{th} International Conference on European Studies in Zurich, 26^{th} LAGV conference in Marseille, 40^{th} GDRE Annual congress in Orléans, and 12^{th} UECE in Lisbon.

1 Introduction

The 2008 global financial crisis triggers a shift paradigm in terms of public debt management and rising concerns about countries' sustainability of public finance. Recent Covid-19 crisis and inflation episode due to the global uncertainty increase deeper interest into that concern. Anchored by the seminal work of Blanchard et al. (1991), which posits the criticality of the interest rate-growth differential in assessing debt sustainability and the potential snowball effect and vicious circle due to the weight of debt servicing costs (Engen & Hubbard 2004), borrowing costs play important role for the sustainability of public finance. It is also argued that market perceptions shape the countries' borrowing costs and thus sustainability (Alesina & Tabellini 1990). Furthermore, fiscal rules have not effectively prevented the increase in public debt ratios, nor have they mitigated the associated costs. Another way to increase the credibility of a country or a government is to improve the fiscal transparency. Fiscal transparency influences the fiscal credibility of a government through the need for them to implement responsible policies by being clear about their objectives without deviating from budgets or manipulating budget forecasts and to shed some light on fiscal risks that could occur to reduce uncertainty (ElBerry & Goeminne 2021, Belianska et al. 2021). Fiscal credibility refers to the level of trust and confidence that market participants, investors, and the general public have in a government's commitment and ability to manage its finances prudently and sustainably (End & Hong 2022). This includes consistently meeting fiscal targets, adhering to fiscal rules, making credible budget forecasts, and ensuring the sustainability of public debt. From the political economy, the credibility of the government is crucial for the realization of its policy's outcome (Cowen et al. 2000). Through that definition, we argue that one main aspect of fiscal credibility is the government's sovereign bonds. As claimed by Afonso (2003), the rating, and thus the cost, of sovereign debt is a good appraisal of the economic, financial, and political position of a country, and hence here, it is seen as an indirect impact on fiscal credibility.

The relationship between fiscal transparency and sovereign borrowing costs can be explained through several key channels rooted in political economy and information asymmetry theories. At its core, fiscal transparency reduces the uncertainty surrounding a government's fiscal policy and economic management, thereby lowering the perceived risk of default in the eyes of investors.

Theoretical models of government credibility emphasize the importance of transparent and predictable fiscal policies in shaping investor expectations and reducing borrowing costs. Governments with high levels of fiscal transparency are seen as more credible because they are less likely to manipulate budget figures or engage in opportunistic fiscal behavior for political gain (Kydland & Prescott 1977, Blinder 2000). Credibility arises when investors believe that governments will adhere to sound fiscal principles, such as controlling deficits and debt accumulation, which lowers risk premiums and ultimately borrowing costs (Alesina & Perotti 1999). Fiscal transparency, by providing clear and reliable information about government revenues, expenditures, and fiscal risks, helps investors better assess a government's financial health. This reduces information asymmetry between the government and market participants, a key factor in determining borrowing costs. When markets are less uncertain about future fiscal outcomes, they demand lower risk premiums on government bonds, particularly in the long-term (Engen & Hubbard 2004) As fiscal transparency increases, the likelihood of adverse surprises—such as unreported liabilities or deficits—diminishes, resulting in lower interest rates on sovereign debt (Hameed 2005). According to the theory of information asymmetry (Akerlof 1970), when one party in a transaction has more or better information than the other, it creates inefficiencies

in the market, often leading to higher costs. In the context of sovereign debt, governments possess more information about their fiscal positions and economic conditions than investors. Higher fiscal transparency helps bridge this information gap by disclosing detailed budgetary data, fiscal risks, and forecasts, which enables investors to make more informed decisions. A transparent government provides regular updates on fiscal performance, including deviations from targets and unexpected risks, which allows bond markets to better price sovereign risk (Alt & Lassen 2006). In contrast, a lack of transparency can lead to an "adverse selection" problem, where investors, unsure of the true fiscal health of the government, demand higher yields as compensation for the increased uncertainty. By reducing this asymmetry, fiscal transparency directly lowers borrowing costs through more favorable risk assessments (Afonso 2003). The political economy literature also emphasizes the role of institutional quality in shaping fiscal outcomes in the European context (Hallerberg, Strauch & Von Hagen 2009). Strong, transparent institutions signal a government's commitment to sound fiscal management and reduce the scope for rent-seeking or fiscal manipulation. Independent fiscal institutions (IFIs) and supreme audit institutions (SAIs), which monitor government actions and provide unbiased assessments of fiscal sustainability, play a crucial role in enhancing transparency (Beetsma et al. 2019). These institutions create a more credible budget process by subjecting fiscal forecasts and outcomes to external scrutiny. Moreover, transparent governments are often held to higher standards by both domestic constituencies and international markets (Blinder 2000). Transparency increases accountability, as governments are more likely to face political costs if they deviate from announced fiscal targets or engage in unsound fiscal practices. The political risk associated with such deviations is reflected in borrowing costs, as governments with lower transparency are seen as more prone to opportunistic fiscal behavior, particularly around election cycles (Alesina 1997). By increasing accountability, fiscal transparency mitigates these risks and stabilizes market perceptions, which lowers sovereign bond yields (Montes & Souza 2020). In addition to its direct effects on fiscal credibility and investor confidence, fiscal transparency also interacts with broader macroeconomic factors that affect borrowing costs. Transparent fiscal policies contribute to more stable macroeconomic environments by reducing uncertainty about future fiscal outcomes, which can help anchor inflation expectations and stabilize currency markets (Glennerster & Shin 2008). Stable macroeconomic conditions, in turn, reduce sovereign risk premiums, as markets perceive less risk of fiscal imbalances or monetary instability (Hameed 2005). For instance, in periods of economic stress—such as recessions or financial crises—governments with high fiscal transparency may be able to borrow at lower costs due to the confidence generated by their clear and predictable fiscal frameworks (Afonso et al. 2012). By contrast, governments with low transparency face higher borrowing costs during such periods, as markets anticipate a greater likelihood of fiscal mismanagement or hidden liabilities.

Therefore, the goal of this paper is to explore in depth the relationship between fiscal transparency and sovereign bonds rates at a short and long run. More precisely, to what extent does fiscal transparency affect interest rates on sovereign debt? And which design of the fiscal transparency matter the most to reduce the borrowing costs? Sovereign bonds, reflect the perceived risk of a government defaulting on its debt. Understanding the role of fiscal transparency in determining the sovereign bonds can provide valuable insights into risk assessment. If higher transparency is linked to lower interest rate, it suggests that markets perceive transparent governments as less risky. This is likely due to the decrease in information asymmetry, which allows markets to make more informed and efficient

decisions. Governments may be encouraged to improve fiscal transparency to reduce borrowing costs, leading to more sustainable public finances which guide them to reduce the uncertainty on future. We expand the traditional factors influencing government bond yields by empirically assessing how fiscal transparency affects sovereign risk pricing across different countries and over time, using a newly fiscal transparency index that include all stakeholders of the budget process, i.e. government, legislature, supreme audit instititons (SAI), and independent fiscal institutions (IFI).

Our findings, derived from a comprehensive analysis using multiple panel data econometric techniques, including two-way fixed effects, Driscoll-Kraay standard errors, two-stage least squares (2SLS), system GMM, and dynamic CCE,reveal that fiscal transparency exerts a significant, negative effect on sovereign bond yields, particularly in developing economies. This effect is most pronounced in the context of long-term interest rates rather than short-term rates, underscoring the relevance of fiscal transparency in shaping long-term borrowing costs. Examining specific design features, we find that economic, policy, and operational transparency dimensions significantly reduce yields, indicating the importance of structured and comprehensive transparency efforts. Furthermore, a squared term of the fiscal transparency index (FTI) demonstrates a positive coefficient, suggesting that while transparency generally reduces borrowing costs, excessive transparency may have diminishing or adverse effects.

The article is organized as follows. The section (2) discusses how the literature has analysed the the determinants of long-term interest rates and also the link with the fiscal transparency and why fiscal transparency is important for governments. Section three (3) describes the new fiscal transparency index and the limits of previous existing fiscal transparency index, the data and specifies the model used. Section (5) presents and discuss the empirical results. Section (6) summarizes findings and highlights some policy implications.

2 Literature Review

2.1 *Fiscal transparency and public finance*

The question of fiscal transparency arises in the same way as monetary transparency led by the central bank but to a lesser extent. The central bank's transparency is a necessary condition for its operation as an independent accountable institution, to explain its decisions as clearly as possible to the public and to be clear in its inflation targeting policy (Buiter, 1999; Issuing, 1999) and later for the anchoring of expectations in its communication and forward guidance policy (Dincer et al. 2022)[1]. In a 1999 survey answered by 84 central banks, Blinder (2000) shows that central bankers have already realized that monetary transparency is important to carry out their policies and maintain their credibility. To build credibility, transparency is important at an average of 4.13 over 5, but the history of the CB is still more important than independence. Transparency is transmitted via inflation targeting, among other means. Geraats (2002) presents five aspects of central bank transparency: *political, economic, procedural, policy, and operational*. Briefly, political transparency refers to the disclosure of policy objectives; economic transparency refers to the disclosure of data, models, and assumptions used; procedural transparency refers to how policy decisions are taken; policy transparency refers to the explanation of decisions (the rational behind); and the operational transparency refers to information

[1]the literature has wide reviewed Central Bank independence benefits (Alesina & Summers 1993, Klomp & De Haan 2010, Garriga & Rodriguez 2020) and come from the time consistency Kydland & Prescott (1977) to the inflation bias Rogoff (1985) or political pressure and budget cycles Nordhaus (1975), Alesina (1988)

in case of an economic shock that could mitigate the policy's transmission process. These features are used by Eijffinger & Geraats (2006) and Dinçer & Eichengreen (2007) to create a time-varying indicator of central bank transparency. We replicate those aspects of central bank transparency in our fiscal transparency index in section (3).

In this paper, the definition of fiscal transparency adopted is derived from Craig & Kopits (1998), wherein fiscal transparency is conceptualized as:

> "Openness toward the public at large about government structure and functions, fiscal policy intentions, public sector accounts, and projections. It involves ready access to reliable, comprehensive, timely, understandable, and internationally comparable information on government activities whether undertaken inside or outside the government sector-so that the electorate and financial markets can accurately assess the government's financial position and the true costs and benefits of governments activities, including their present and future economic and social implications" (Craig & Kopits 1998).

Fiscal transparency holds paramount importance throughout the entire budget process, acting as a cornerstone for informed public discourse, enhancing government accountability, and contributing to more effective fiscal policy and market assessments. International institutions like the IMF or the OECD try to internationalize a common value of fiscal transparency throughout the budget process through their Code of Good Practices on Transparency in Monetary and Financial Policies (1999), Code of Good Practices on Fiscal Transparency (2007), and the Fiscal Transparency Code (2019) by IMF, and the Best Practices for Budget Transparency (2002) and the Budget Transparency Toolkit (2017) by the OECD. The rationale behind this emphasis stems from the notion that transparent fiscal practices furnish stakeholders, including investors, policymakers, and the public, with critical information regarding government revenues, expenditures, debt levels, and future fiscal intentions (Heald 2003).

Theoretical models exploring the relationship between fiscal transparency and borrowing costs identify three critical channels: credibility, risk perception, and expectation formation. Enhanced fiscal transparency reduces information asymmetries and signals a government's commitment to fiscal sustainability, thereby strengthening credibility and lowering the risk premium demanded by investors. Models such as Bernoth et al. (2012) and Alt & Lassen (2006) provide robust evidence that transparency fosters market confidence and narrows sovereign bond spreads. The role of public information is further analyzed in Morris & Shin (2002), who emphasize its function as a coordination mechanism for investors, aligning expectations and mitigating uncertainty in financial markets. However, they caution that imprecise or biased public signals may amplify collective errors, leading to inefficient equilibria, underscoring the necessity of credible and accurate fiscal disclosures.

The potential downsides of excessive transparency are highlighted by Hollyer et al. (2011), who argue that an overabundance of fiscal information can intensify investor herding or trigger market overreactions during periods of uncertainty. Similarly, Glennerster & Shin (2008) contend that overly detailed disclosures may overwhelm investors, complicating their ability to assess fiscal sustainability accurately. Extending these insights, Arellano (2008) incorporates fiscal transparency into a general

equilibrium framework, demonstrating its impact on default probabilities and how it shapes investors' evaluations of debt sustainability. Finally, Beetsma et al. (2009) illustrate the mechanisms through which transparency reinforces fiscal credibility, reduces uncertainty, and lowers sovereign risk premiums.

This comprehensive visibility enables more accurate evaluations of fiscal sustainability and risk, facilitating better decision-making by investors regarding the pricing of government securities (Alt & Lassen 2006). Furthermore, transparency in fiscal operations promotes discipline among policymakers by curtailing opportunities for fiscal mismanagement and reducing the scope for engaging in opportunistic economic policies (Wehner & De Renzio 2013). From a macroeconomic perspective, fiscal transparency is linked to improved fiscal outcomes, as it helps in anchoring inflation expectations, lowering borrowing costs, and enhancing fiscal discipline (Glennerster & Shin 2008, Hameed 2005, Craig & Kopits 1998). Regarding fiscal results, fiscal transparency has a good impact on government spending efficiency[2] (Montes et al. 2019). The first is through the willingness of policymakers to adopt sound fiscal policies in a transparent framework while the other is more direct through the accountability point of view. They show that the government spending efficiency is higher in more transparent countries and even more in countries that adopted inflation targeting, but lower in developed countries.

Lledo et al. (2010) find that the higher the quality of institutions is, the better the fiscal discipline is and the lower the public debt is. Their index also negatively affects the procyclicality in fiscal policy with greater emphasis on transparency and comprehensiveness of the budget. These results go in the sense of Hameed (2005) and Alt & Lassen (2006) on fiscal discipline (proxied by the average primary balance over the last five years) as well as on lower deficits, thus public debt accumulation, and a decrease in the electoral cycle.

If we look at the determinants of fiscal transparency, on the fiscal policy side, Alesina & Perotti (1999) highlight some determinants that can impact fiscal transparency such as overly optimistic macroeconomic and fiscal assumptions, off-budget activities, shifting expenditures to future years in the multiyear budget, or an ineffective audit.[3] According to Wehner & De Renzio (2013) there are two sources of budget disclosure demand: citizens and legislator. In their study covering 85 countries, they use the 2008 OBI index and control for a lot of political and social variables. Their findings suggest that free and fair elections increase fiscal transparency, countries with large raw material resources like gas or oil tend to have lower fiscal transparency, and partisan fragmentation also affects positively fiscal transparency but only in countries with free elections.

Although fiscal transparency is good for fiscal outcomes for countries, it also helps them to build or rebuild fiscal credibility through the disclosure of their budget, their assumptions, or oversight to reduce the uncertainty around future fiscal policy (Heald 2003). Fiscal credibility can be resumed in the same way as the monetary credibility of the central bank: it is the perception of the private sector that the government will implement the policies it has announced (Blinder 2000). As for fiscal transparency, there is no consensus on a measure of fiscal credibility. De Mendonça & Machado (2013) compute credibility index as the disparities in projected net public debt-to-GDP ratios relative to the prudential threshold for debt recommended by the International Monetary Fund and the Maastricht Treaty. Their results suggest that commitment to public debt increases fiscal credibility and allows

[2]Defined as the government's capacity to generate greater outcomes using a specific amount of resources.

[3]Later, Stanić (2018), through a meta-analysis, highlights that fiscal transparency is affected by political, financial, citizen, and media determinants.

for better public debt management. In the same vein, De Mendonça & Silva (2016) assess the fiscal credibility, proxied here as the deviation between the market expectations of the primary surplus target and the reel value, with respect to the inflation. The empirical evidence presented reveals that more effectively attaining the primary surplus objective contributes to a reduction in both the actual inflation rate and inflation expectations. Montes et al. (2018) do the same using a fiscal credibility index based on the difference between the projected primary surplus expectation and the primary surplus necessary to achieve a level of gross debt deemed sustainable.

On the relationship between fiscal credibility and transparency, End & Hong (2022) analyzes how policymakers' communication affects the expectations and beliefs of private agents taking into account 10 questions of the OBI as a fiscal transparency index. They construct three credibility indices based on the difference between the expected fiscal balance of private agents and governments (*Bias*), the same index in absolute value (*Skepticism*), and the last is the anchoring of expectations around the announced target of the government (*Unanchoring*).

A recent study by ElBerry & Goeminne (2021) focusses on the relationship between fiscal transparency and fiscal credibility. In their paper, the authors use several indices. For credibility, they use four indices of the PEFA (the differences between the observed and expected aggregate revenue and expenditure, the composition of public expenditure, and stock of expenditure arrears), transparency and quality of information are reflected through the OBI, and the risk budget is also derived from the PEFA. Their findings suggest that fiscal transparency is associated with an improvement in the accuracy of budget forecasts between those observed and those achieved.

Fiscal transparency could also help EU accession countries strengthen their credibility through better MTBF and target forecasting (Allan & Parry 2003).

It is also for that reason that Independent Fiscal Institutions (IFIs) are implemented in many countries, especially in the EU[4] (Davoodi et al. 2022), to increase fiscal transparency and credibility through their mandate of analysing and assessing the Member State's fiscal position, providing unbiased macroeconomic forecasts and monitoring compliance with national and European fiscal rules. These major innovations in the management of public finances and the implementation of fiscal policy (Von Trapp et al. 2016) have been well examined in the literature. On the fiscal credibility side, they reduce the deficit and forecasting bias made by governments (Jonung & Larch 2006, Hagemann 2011, Frankel et al. 2013, Coletta et al. 2015, Debrun & Kinda 2017, Beetsma et al. 2019, Wildowicz-Giegiel et al. 2019). On the fiscal transparency side, they reduce the risk premium on sovereign debt (Pappas & Kostakis 2020) and allow citizens to access better comprehensive information, empowering them to assess the genuine efficacy and competence of their governing bodies (Beetsma et al. 2022).

In this sense, we want to fill the gap in the literature on fiscal transparency by adding the features of IFIs (ex-ante analysis) and SAIs (ex-post analysis) into our index to cover all parts of the government's budget process.

Moreover, the involvement of Independent Fiscal Institutions (IFIs) in the budget process underpins fiscal transparency by providing unbiased analyses and forecasts, which further informs public debate and ensures a more grounded and realistic budgetary framework (Debrun & Kumar 2007). In essence, fiscal transparency is not merely a procedural attribute of the budget process; it is fundamentally

[4]They were implemented in most of the member states after the great financial crisis and sovereign debt crisis by the European Commission through the Two and Six Pack directives and regulations, and Treaty on Stability, Coordination and Governance in the Economic and Monetary Union (TSCG).

intertwined with the efficiency, credibility, and success of fiscal policy, underscoring its critical role in fostering sustainable economic governance.

While the emphasis on fiscal and monetary policy transparency has been pivotal in enhancing public accountability and governance, there is a growing discourse around the phenomena of "transparency fatigue" and the potential downsides of excessive transparency. Wehner & De Renzio (2013) criticize the practical effectiveness of fiscal transparency initiatives, arguing that an overemphasis on transparency does not automatically lead to better accountability outcomes and may lead to information overload, diminishing the engagement of stakeholders. From the monetary policy perspective, Morris & Shin (2002) highlight how excessive transparency might lead to herding behavior among market participants, potentially destabilizing financial markets by amplifying market reactions to new information. Geraats (2002) also points out that while central bank transparency is crucial for credibility and anchoring expectations, there is an optimal level of transparency beyond which it may become counterproductive, complicating the policy signal interpretation. These suggest that while transparency in fiscal and monetary policies is fundamentally valuable, there is a nuanced balance to be struck to avoid the pitfalls of transparency fatigue and the adverse effects of too much information, underscoring the importance of targeted, meaningful disclosure over sheer volume. For instance, Andrews (2013) examines the complexities and unintended consequences of fiscal transparency efforts, particularly in developing countries where institutional capacities are limited. The author argues that the push for transparency must be balanced with the capability to use and interpret the information effectively, to prevent it from becoming a burdensome endeavor that fails to yield the intended improvements in governance and public engagement. Again, concerns about the risk of overwhelming non-expert stakeholders with highly detailed fiscal information, which can obscure key fiscal indicators and priorities rather than clarifying them. This critique underscores the need for fiscal transparency efforts to be not only about the volume of information released but also about its relevance, quality, accessibility, and the ability of stakeholders to engage with it meaningfully (Shi & Svensson 2002, Alt et al. 2002, Heald 2003).

Furthermore, adding more transparency into the budget process means add more monitoring and empowerment of experts analyses to effectively produce, interpret, and utilize the disclosed fiscal data. Hallerberg, Scartascini & Stein (2009) explore this phenomenon in their analysis of fiscal governance in Latin America, demonstrating how technocrats have been pivotal in crafting coherent fiscal policies and ensuring fiscal discipline through their expertise and insulation from political pressures. Metz (2022) discusses about the "agencification" of the economic policy. The implications of this shift, suggesting that while the involvement of technocrats can enhance the efficiency and coherence of budgetary outcomes, it also raises questions about democratic accountability and the balance of power in public decision-making.

2.2 *Determinants of sovereign bonds and fiscal transparency*

The determinants of long-term borrowing costs, reflected in long-term interest rates, for countries, are multifaceted, intertwining fiscal, economic, and political dimensions.

Afonso (2003), Cantor & Packer (1996), Afonso et al. (2012) converge on the critical role that economic fundamentals, fiscal policies, and political stability play in determining sovereign debt ratings and, by extension, influence the cost of government borrowing. Authors underscore the significance of

sovereign credit ratings as a reflection of a country's fiscal health and economic prospects, highlighting how ratings not only mirror but can also impact sovereign bond markets through investor perceptions and borrowing costs.

In examining yield spreads on EMU government bonds, Codogno et al. (2003) alongside Afonso & Rault (2015), look into the factors driving variations in spreads across member states, pointing to fiscal positions, economic growth, and market sentiment as pivotal determinants. Their analyses reveal the nuanced effects of fiscal discipline, liquidity, and global financial conditions on yield differentials, suggesting that sovereign bond markets are deeply influenced by both domestic economic indicators and external market dynamics. The complex feedback mechanisms linking market perceptions, sovereign ratings, and financial stability through the self-fulfilling dynamics that can emerge, particularly during financial crises, highlights the cyclical nature of ratings and market yields Gibson et al. (2017), De Mendonça & Machado (2013)

Moreover, the importance of fiscal transparency and economic forecasting is studied by Afonso et al. (2015) who argue that credible economic projections can significantly affect market expectations and sovereign borrowing costs. Those credible projections are more likely to happen and believed by the market in a transparent context. Also, fiscal discipline, measured through indicators such as government debt-to-GDP ratios and fiscal deficits, plays a crucial role, with higher levels of public debt often leading to increased borrowing costs due to heightened perceptions of default risk (Afonso 2010). Economic factors, including inflation expectations and real GDP growth, also significantly influence long-term interest rates. Higher inflation expectations can lead to higher interest rates as lenders demand compensation for the erosion of real returns, whereas robust economic growth can mitigate these costs by improving debt sustainability (Bernoth & Wolff 2008). Political stability and governance quality are equally important, with political uncertainty and weaker institutional frameworks correlating with higher risk premiums (Arghyrou & Tsoukalas 2011). Moreover, the European Central Bank's monetary policy stance, particularly its interest rate decisions and quantitative easing programs, directly impacts long-term interest rates across the Eurozone (Belke & Klose 2011). Lastly, global financial market conditions and investors' risk appetite play a crucial role, as they affect the demand for sovereign bonds and, consequently, the interest rates governments must pay to attract investors (Ejsing & Lemke 2011).

Craig & Kopits (1998) point out the channel through which fiscal transparency can play a role in economic performance through a better assessment of the financial market thus on borrowing cost and credit ratings. This is effective in developed economies (Hameed 2005, Bernoth & Wolff 2008, Hallerberg & Wolff 2008, Kemoe & Zhan 2018) and in developing economies (Glennerster & Shin 2008, Bastida et al. 2017), but the impact differs between these types of countries. According to Arbatli & Escolano (2015), fiscal transparency has a good influence on ratings in developed countries through better fiscal outcomes, while in developing countries it goes through the reduction of uncertainty and fiscal and financial position of the country.

3 Indicators of fiscal transparency

3.1 traditionnal indicators: strengths and weaknessess

Despite the increasing global focus on fiscal transparency, existing fiscal transparency indices have significant limitations.

Hameed (2005) developed an index based on the IMF's Reports on the Observance of Standards and Codes (ROSCs). While this index provided an early attempt to quantify fiscal transparency, its reliance on voluntary self-reporting by governments raises concerns about bias and inaccuracy. Governments are not required to follow these standards strictly, leading to inconsistencies in the reporting process. Furthermore, it only reflects adherence to IMF standards, which are limited in scope and fail to capture many dimensions of transparency relevant to modern fiscal practices, such as off-budget activities or the effectiveness of independent fiscal institutions.

The Alt & Lassen (2006) index, which relies on a 12-item questionnaire filled out by Budget Directors of respective countries, suffers from self-reporting bias. Relying on government officials for transparency assessments inherently raises concerns about conflict of interest and objectivity. Additionally, the questionnaire is too narrow, focusing mainly on document publication and the presence of audits. It fails to capture broader aspects of transparency, such as citizen participation, the accessibility of budget documents, or the adequacy of legislative scrutiny.

The Open Budget Index (OBI), developed by the International Budget Partnership, is a widely used and well-established measure. However, while the OBI has made strides in covering many countries and providing some level of comparability, it is also subject to several weaknesses. The survey-based nature of the OBI means that it depends on local experts, whose assessments may lack objectivity or vary in quality across countries. Moreover, the OBI focuses too much on document availability, which, while important, does not necessarily translate into genuine fiscal transparency. The existence of budget documents does not ensure their comprehensibility, nor does it address how well the information is used in practice by stakeholders like legislatures or civil society. The OBI also neglects to fully incorporate the role of Independent Fiscal Institutions (IFIs), which play an increasingly important role in scrutinizing fiscal policy in many countries.

The Lledo et al. (2010) index, which attempts to create a composite measure of fiscal transparency based on institutional quality, provides a step forward by focusing on institutions. However, it suffers from a strong bias towards the expenditure side of the budget, ignoring key aspects of revenue transparency and fiscal risks. This index, like others, also pays insufficient attention to the role of IFIs or the critical post-budget oversight provided by Supreme Audit Institutions (SAIs).

Similarly, Bernoth & Wolff (2008) index, which focuses on the accuracy and timeliness of fiscal data from the OECD and World Bank, is overly technical and detached from broader fiscal governance issues. It does not account for political dynamics or institutional weaknesses that could lead to manipulation of fiscal data. This approach assumes that timely and accurate data are sufficient to ensure fiscal transparency, neglecting the broader institutional and political context that determines how this information is used and whether it actually translates into fiscal discipline.

Table 1: Different Fiscal Transparency Indices

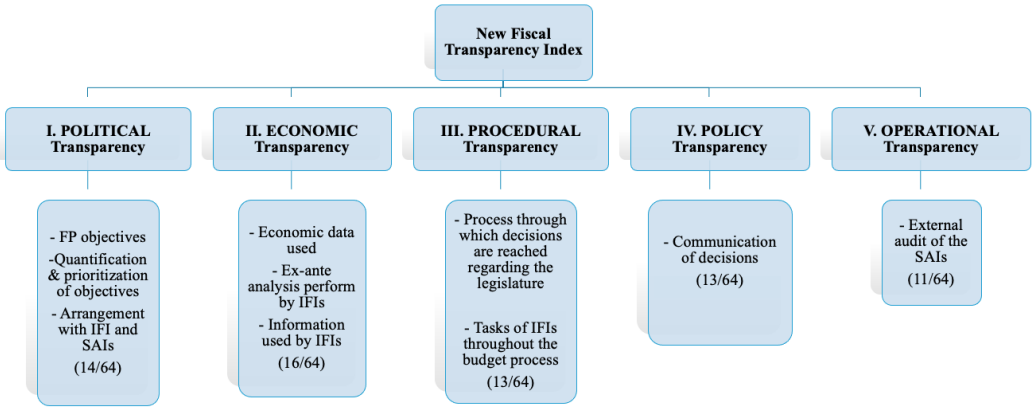
Authors	Description	Weakness
Hameed (2005)	Fiscal Transparency Report on Observance of Standards and Codes (ROSC). This report is prepared by the IMF based on information provided by local authorities.	Take into account only standards and codes present in the IMF's Code of Good Practices on Fiscal Transparency that governments are not forced to follow.
Alt & Lassen (2006)	A 12-item questionnaire answered by Budget Directors of countries assessing the timeliness of governmental document publication, the presence of independent audits, the review of assumptions by an impartial entity, the justification for these assumptions, comparisons with previous assumptions, and the extent of their discussion.	Self-report could cause bias in the answers. It does not look at each piece of information present in budget documents during the budget process nor the disclosure of data and model used during the preparation of the budget assumptions.
Open Budget Index (OBI), De Renzio & Masud (2011)	Part of the Open Budget Survey, encompassing a public participation and budget oversight index. The questionnaire is answered by a domestic budget expert, and an external expert (and the government if they want) reviews it. The questionnaire aligns with IMF, OECD, and International Organisation of Supreme Audit Institutions guidelines.	Does not take into account the role of independent fiscal institutions whereas they are questions in the main OBS questionnaire.
Quality of budget institutions, Lledo et al. (2010)	Review of the budget process through 33 criteria. Fiscal transparency occurs in questions regarding the timeliness of documents, accounting standards utilised, or parliamentary hearings on the budget.	Mainly focuses on the expenditure part of budgets and does not take into account the role of independent institutions that could intervene throughout the budget process.
Government Finance Statistics Reporting Index (GFSRI) (Wang et al. 2015)	Assesses the central government's detailed data disclosurenon-financial assets, debt transactionsets, debt transactions, and balance sheet positions (assets and liabilities stock).	Check only if statistics reported by countries correspond well to the values achieved.

Authors	Description	Weakness
Voice and Accountability Index (World Governance Indicators), Kaufmann et al. (2011)	Evaluates the government's electoral and oversight processes, emphasising the latter. Data sources include the Democracy Index, Human Rights Index, confidence in elections, parliamentary adherence to the constitution, and government policy communication. Notably, the OBI is one such index.	The index is more oriented through political, electoral, democracy, or human freedom components of fiscal transparency.

3.2 FTI: a new fiscal transaprency index

In the preceding discourse on the limitations of current Fiscal Transparency Indices (FTIs), as delineated in Section 3.1, we introduce an enhanced FTI developed through the amalgamation of data from the Open Budget Survey (OBS) and the IMF Fiscal Council database. This new fiscal transparency index has the flexibility to overview the budget process as a whole including not only the transparency of the government but also of the independent fiscal institutions (IFIs) which has an ex-ante role, and the supreme audit institutions (SAI) which has an ex-post role throughout this process. Those two last institutions play an important role throughout the budget process. In one hand, SAIs ensure budget integrity and proper implementation by auditing government accounts and operations, thereby ensuring that public funds are utilized efficiently and in compliance with legal frameworks, a process pivotal to the integrity of public finances (Dabla-Norris et al. 2012). Although the role of the SAI and their impact on the budget process is well known since they improve public sector performance, accountability, and transparency (Bonollo 2019, Wehner & De Renzio 2013, Stapenhurst & Titsworth 2001, Pollitt & Summa 1997), it is relevant to include them in this index to see whether their features allow to effectively increase fiscal transparency. On the other hand, independent fiscal institutions (IFIs) are quite new in the overview of the budget process (Kopits 2011). However, their influence has been quickly analysed through their effect on fiscal discipline, transparency, forecast bias, accountability, and credibility of the government (Debrun & Kumar 2007, Kopits 2011, Beetsma et al. 2019, 2022, Căpraru et al. 2022). Although, these institutions do not have the political power to encompass the budget, they can still influence the opinion on incumbents so as not to encourage them to pursue opportunistic policies to get re-elected (Blume & Voigt 2011, Claeys 2019). Through this increasing transparency or influence on the credibility of the government, they can mitigate extreme variations in fiscal policy, such as in the electoral cycle or forecast bias (Beetsma et al. 2019). Here again, and in the same way as SAIs, we want to check if their design is well suited to improve fiscal transparency. Moreover, the presence and activities of IFIs and SAIs significantly boost public confidence in fiscal management by providing independent scrutiny of fiscal policies and public spending, thereby ensuring accurate and transparent fiscal information (Kopits 2011). Additionally, these institutions promote accountability and good governance, key elements of fiscal transparency, by deterring fiscal mismanagement and corruption through their rigorous oversight functions. The inclusion of IFIs and SAIs features in a Fiscal Transparency Index not only enriches the index's comprehensiveness but also highlights the importance of institutional frameworks in supporting transparent and accountable fiscal

Figure 1: New Fiscal Transparency Index structure

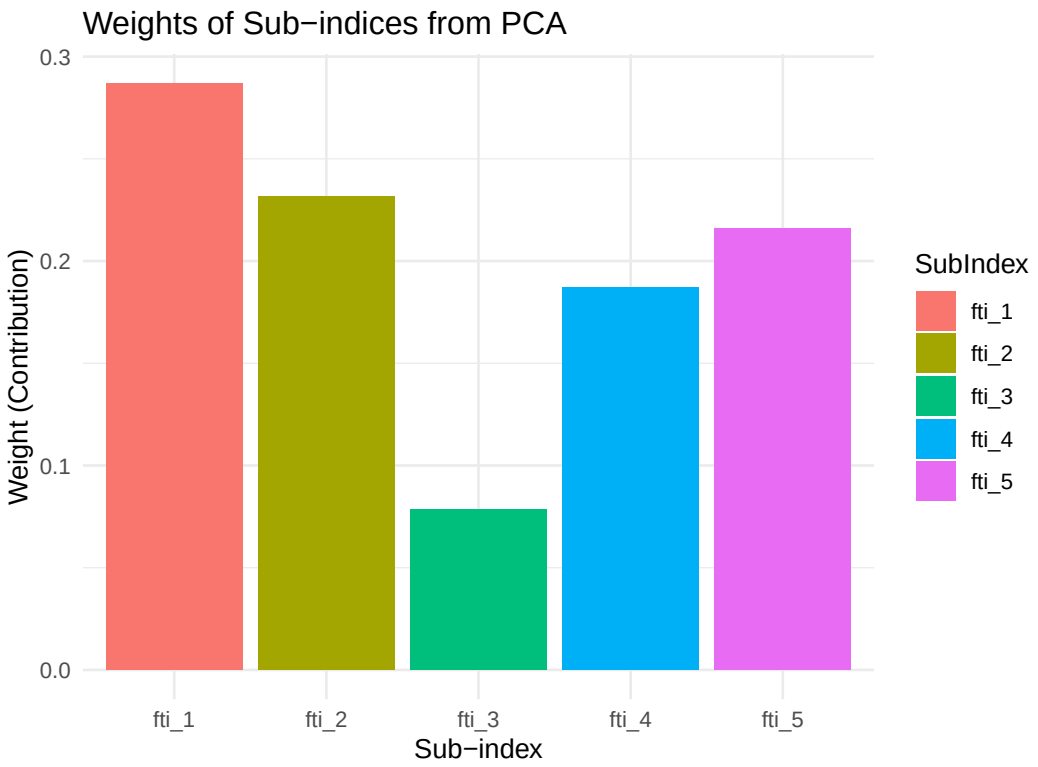


governance, as recognized by international standards like the IMF's Fiscal Transparency Code (IMF 2018).

To construct our index, we select questions from the OBS, that are linked only to executive-budget proposal and the enacted budget which are the most important documents for investors to base their decisions on. We then incorporate alongside characteristics of IFIs to cover the transparency inherent in the preliminary stages of the budget process. Our methodology to construct the fiscal transparency index follows a systematic, three-step approach from Nardo et al. (2008). In the first step, we select relevant variables across dimensions of fiscal transparency, winsorize the data at the 5th and 95th percentiles to mitigate the influence of outliers. In the second step, we aggregate these variables to form distinct sub-indices, each reflecting a dimension of fiscal transparency. In the final step, we use Principal Component Analysis (PCA) to assign weights to these sub-indices. Specifically, at both the sub-index level and the full index aggregation, the weights are derived from the squared factor loadings of the PCA, ensuring they sum to unity. This weighting approach maximizes the variance explained by each component, resulting in a comprehensive fiscal transparency index that captures the most informative aspects of transparency across our selected dimensions. Figure((1) illustrates the structure of the index with its three layers: at the bottom of the pyramid the selected series, at the centre the sub-indices for each of the five dimensions, on top the FTI index. The index aggregates 64 questions and features, with all criteria scaled from 0 to 100, where zero is the minimum of fiscal transparency and 100 the maximum. It culminating in a composite Fiscal Transparency Index (FTI) reflecting the five sub-indices: (i) Political transparency, (ii) Economic transparency, (iii) Procedural transparency, (iv) Policy transparency, and (v) Operational transparency.

Political Transparency refers to the openness regarding the government's policy objectives and non-financial targets. It assesses the alignment between the government's budget proposal and its broader political agenda. This dimension is crucial because political transparency signals to investors and the public that the government is committed to clearly stated fiscal goals, reducing uncertainty about future policy shifts. Transparent political objectives help mitigate risks associated with opportunistic fiscal behavior, especially around election cycles (Alt & Lassen 2006). Economic Transparency involves the disclosure of economic assumptions, macroeconomic forecasts, and the projected impact of the budget on public revenues and expenditures. The inclusion of this dimension draws on the economic

Figure 2: New Fiscal Transparency Index structure



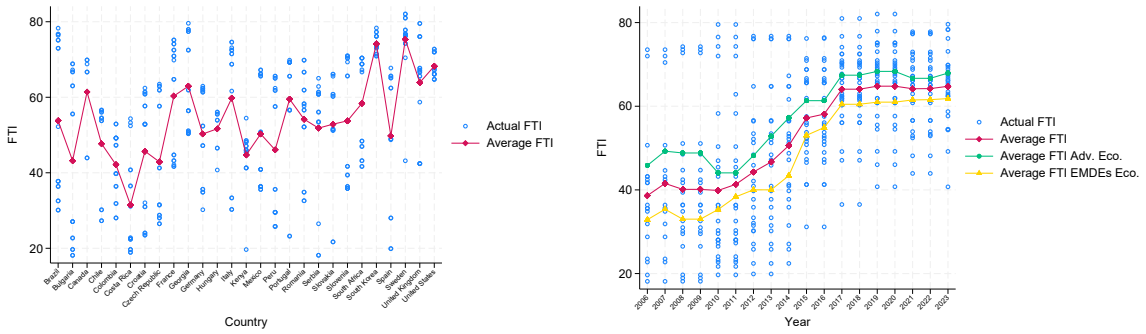
theory of information asymmetry, where providing accurate and timely data reduces the information gap between governments and investors. Transparent economic forecasts allow financial markets to assess fiscal sustainability more effectively, which in turn lowers borrowing costs (Engen & Hubbard 2004). Procedural Transparency captures how fiscal decisions are made within the government, including the legislative process, public consultations, and the roles played by independent oversight bodies like Independent Fiscal Institutions (IFIs). Procedural transparency ensures that all stakeholders in the budget process operate under clear, accountable procedures, reducing the scope for manipulation or non-transparent fiscal practices ((Hameed 2005) The engagement of legislative committees and civil society in fiscal debates enhances the credibility of fiscal projections and reassures markets about the robustness of the process. Policy Transparency addresses the clarity of the government's budgetary decisions and how they are communicated to the public. This dimension ensures that governments not only make fiscal decisions in a transparent manner but also clearly explain the rationale behind these decisions, especially in cases of deviation from previously stated goals. Markets respond favorably when there is consistency between the government's stated fiscal policy and its actual execution (Alt & Lassen 2006). Operational Transparency focuses on the post-budget oversight and accountability mechanisms, particularly the role of Supreme Audit Institutions (SAIs) in evaluating whether budgetary outcomes align with projections. The effectiveness of these oversight mechanisms contributes significantly to transparency by holding governments accountable for fiscal outcomes and identifying any off-balance-sheet liabilities or contingent liabilities that could affect future fiscal sustainability (Wehner & De Renzio 2013).

Figure (2) shows the weights of the five sub-indices, representing the amount of variability in the panel which is explained by each component: *political*, *economic*, and *operational* have the largest

weights, about 0.29, 0.23, and 0.22, respectively, followed by *policy* around 0.19, and *procedural*, about 0.07.

In Figure (3) we can see that although there exists a strong heterogeneity among countries, there is an increasing trend of fiscal transparency since 2006 (Molotok 2020). To compare our new fiscal transparency index with respect to the Open Budget Index, we use several statistical techniques. First, we can compare them in terms of distribution. A paired t-test allows us to indicate that both indices differ significantly in their mean values. With this result, we can assume that both indices are different and thus measure various aspects of transparency. Furthermore, using Kolmogorov-Smirnov tests, which perform equality of distributions, indicates that the FTI does not follow a normal distribution, while the OBI follows it. However, the Spearman correlation test argues that, contrary to the difference hypothesis, the two indices are significantly and highly correlated (0.57). This implies that the indices are not independent, they both move in the same way. This is rational since, as explained before, the new fiscal transparency index integrates some of the OBI's components (see Figures (5) and (**??**)).

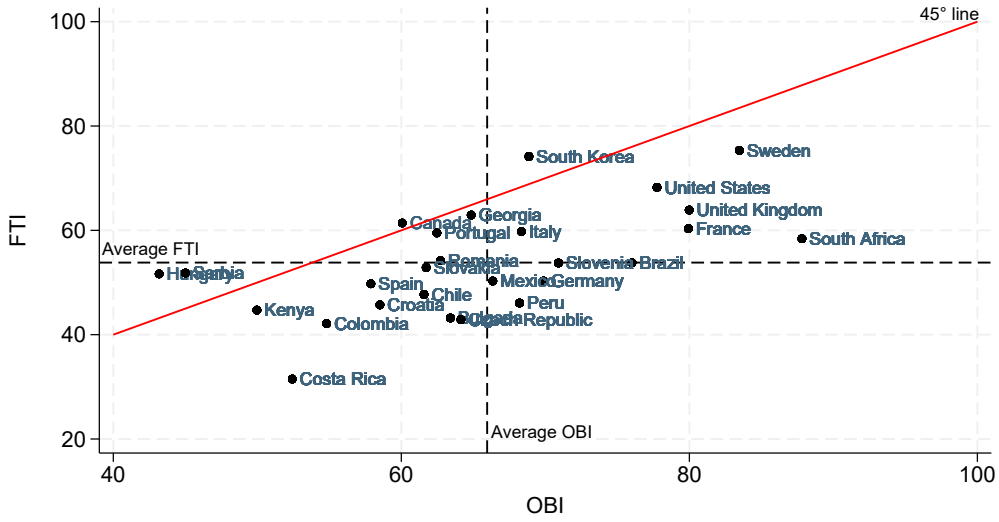
Figure 3: FTI by country and over years



(a) FTI by country

(b) FTI over the period

Figure 4: FTI and OBI indices, averages values 2006-2023



4 Data and methodology

4.1 Data

This research uses panel data from 27 developed and developing countries, covering the years 2006 to 2023. The countries analysed are Brazil, Bulgaria, Canada, Chile, Colombia, Costa Rica, Croatia, Czech Republic, France, Georgia, Germany, Hungary, Italy, Kenya, Korea, Mexico, Peru, Portugal, Romania, Serbia, South Africa, Slovakia, Slovenia, Spain, Sweden, United Kingdom, and the United States of America. We can divide this sample into two groups of countries, including developed and developing countries[5]. Since the data availability of different variables is not the same for each country, the panel is unbalanced.

The paper primarily focuses on the dependent variable, sovereign public risk, represented through the short- and long-term interest rates on countries' public debt with 3-month (*ST Int. Rate*)and 10-year maturities (*LT Int. Rate*) . Data for these variables were obtained from the OECD and national central bank databases. Alternative measures of sovereign bond yield are government bond spread relative to a risk free asset which is either German (*SpreadGER*) or American (*SpreadUSA*) government bond. In this study, the primary independent variable is fiscal transparency. To measure this variable, we use the new fiscal transparency index (*fti*) described and constructed in the previous section (3.2).

We also incorporate several controlled variables according to the literature on sovereign bonds determinants (Engen & Hubbard 2004, Kinoshita 2006, Hilscher & Nosbusch 2010, Poghosyan 2014). Macroeconomic fundamentals are used as control variables, such as the inflation rate *Inflation*. It is calculated as the change in the annual average of the headline consumer price inflation. We also use the real effective exchange rate (REER, base 100 in 2007, and transformed in logarithm) from Darvas (2012). The latter generally captures credit risk arising from general macroeconomic disequilibrium. An increase (decrease) in REER (*logreer*) indicates an appreciation (depreciation) of the real exchange rate, which is projected to increase (decrease) the sovereign risk, as theoretically supported by Arghyrou & Tsoukalas (2011) and Afonso et al. (2015). The central bank policy rate (CB_PR) is also used to control for the role of monetary policy on the yield curve (Ang & Piazzesi 2003). We also include the GDP growth rate (GDP_Prct) to count for business cycles. In addition, regarding fiscal variables,we take into consideration the cyclically adjusted primary budget balance ($CAPB$) to GDP ratio and the gross public debt to GDP ratio ($Public\_Debt$) to account for fiscal dynamics. A higher (lower) CAPB is expected to decrease (decrease) the sovereign bonds. The opposite logic appears for the public debt (Gruber & Kamin 2012). We also include the current account balance (CAB) and the VIX index to take into account external and financial disequilibrium. A final set of variables controls for crises effect (*crisis2*), liquidity (*M3*) and political cycle (*elec*). A dummy variable is included to control for crisis endured by countries following the database of Nguyen et al. (2022)[6]. As proxies for liquidity conditions we use the growth of money supply calculated by the broad measure of M3. Here the money supply was expected to have a negative sign, as monetary expansion could correspond with lower yields, and contraction with higher yields (Ardagna et al. 2007). To account for elcectoral cycles, we construct an election dummy variable which includes legislative or executive elections from

[5]According to the IMF classification, developed countries include Canada, Croatia, Czech Republic, France, Germany, Italy, Korea, Portugal, Slovakia, Slovenia, Spain, Sweden, the UK, and the US, thus 14 countries in total. Developing countries include Brazil, Bulgaria, Chile, Colombia, Costa Rica, Georgia, Hungary, Kenya, Mexico, Peru, Romania, Serbia, and South Africa, which is 13 countries in total.

[6]The dataset includes banking crises, currency crises, and sovereign debt crises.

the Cruz et al. (2020) database. The last two variables: *frac* and *wdi_internet* are instruments to test the endogeneity of fiscal transparency. Indeed, governments with good fiscal performances may tend to disclose more of their budget information to be re-elected. Thus, in this case, fiscal performance can lead to greater fiscal transparency reversely. To do so, we use two instruments following the literature: political competition (Alt & Lassen 2006, Arbatli & Escolano 2015) and internet users (Sarr 2015, ElBerry & Goeminne 2021). Political competition is measured through the probability that two deputies picked at random from the legislature will be of different parties The rationale behind is that incumbents who are likely to remain in power in the future will have less incentive to improve transparency. Internet users, in % of the population, is used as a proxy for citizens' access to information and communication technologies, which is anticipated to enhance public awareness and increase the demand for fiscal transparency. Table (2) presents the descriptive statistics of the data used in the article while Table (14) defines the variables.

Table 2: Descriptive Statistics

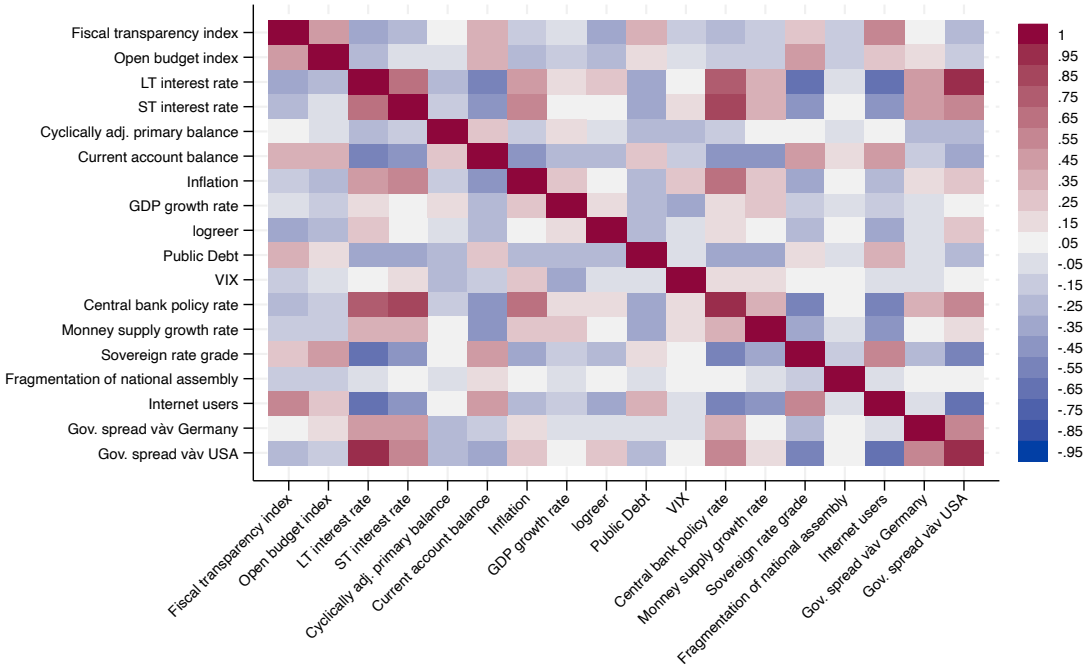
	Mean	Median	Min.	Max.	SD	Skewness	Kurtosis	Obs.
LT interest rate	4.798667	4.3	-.51	15.44	3.282983	.6472012	2.821911	431
ST interest rate	3.319993	2.3	-.7	16.92	3.636817	1.302335	4.444434	420
Fiscal transparency index	53.82362	56.50519	18.13636	82.04762	16.97242	-.4052946	2.020013	442
Open budget index	65.96707	65.75112	22.00917	92.3407	13.03791	-.151055	2.539535	442
Cyclically adj. primary balance	-2.651448	-2.51	-11.719	11.072	2.819308	-.0737521	4.436219	424
Current account balance	-1.803213	-1.911	-23.892	8.62	4.729592	-.7668427	5.722529	442
Public Debt	59.35535	51.784	8.607	154.927	31.23863	.8065661	2.886554	442
logreer	4.608782	4.590067	4.27921	5.066822	.1347218	.5187934	3.746314	442
Inflation	3.721676	2.8505	-1.601	17.14	3.221643	1.263917	4.61128	442
Central bank policy rate	3.474331	2.291667	-.5	16	3.579731	1.034295	3.338656	440
GDP growth rate	2.399387	2.534	-11.165	13.788	3.603358	-.6710125	5.005314	442
Internet users	66.87255	73	3.6	97.57133	22.04137	-.8990326	3.091462	429
VIX	19.5261	16.85	11.09024	32.69553	6.099975	.7961729	2.519638	442
Fragmentation of legislature	.6876785	.7030075	.3567785	.9514622	.1222038	-.294334	2.793953	426
Sovereign rate grade	14.49843	13.37215	6.786301	21	4.178485	.192885	1.84934	442
Monney supply growth rate	8.705213	7.731257	-10.5	46.39928	6.651525	1.50959	7.779281	442
Gov. spread vàv Germany	2.364437	1.44645	-4.2167	13.6642	3.361365	.640557	3.1927	442
Gov. spread vàv USA	2.014973	1.165	-4.79	12.74	3.270052	.782663	3.150629	442

Notes: This table presents the summary statistics of the variables under study from 2006 to 2023.
Specifically, we report the mean, median, minimum, maximum, standard deviation, the skewness, the kurtosis of the series.
All variables are in annual terms.

Figure (5) presents the map of correlations between the variables under study using the entire sample. In this graph, we can see that a darker red color means a positive correlation, while a darker blue one means a negative correlation. The long-term public debt interest rate measure is negatively correlated with the FTI and in a larger way than the OBI index. This relationship is stronger if we look at the developed countries (Figure (9)), while the relationship is the same regarding FTI and long-term interest rate on public debt but in a weaker manner for developing countries (Figure (10)). Afterward, there is a positive relationship with REER, inflation, central bank policy rate, and M3 concerning the long-term interest rate. While there is a negative relationship with the primary balance, the current account balance, the GDP growth rate.

In Figure (6), we confirm the negative relationship between the FTI and long-term interest rate on public debt variables with a correlation of -0.39. This scatter plot shows the linear regression of the long-term interest rate with respect to the FTI. A clear negative and expected relation is observed through this perspective.

Figure 5: Heatmap of Correlations (all sample)



Finally, the relation between FTI and long-term interest rate can also be seen through the lens of Figure (7) using time series. On one hand, we can see first of all the jump in the interest rates in many countries due to the financial and European debt crisis which created some co-movement in the series (De Grauwe & Ji 2013). We can also observe that all countries did not react the same way to these crises. Some of them had better fundamentals to deal with. On the other hand, the FTI shows us that countries with already high levels of fiscal transparency have seen their transparency remain stable throughout the period and have been impacted by these crises in a lesser way. While the countries that have been impacted in a bigger way, have seen their FTI fluctuate more intensely. We can also argue that in most of the cases, the OBI tends to overestimate the fiscal transparency in the country, as shown in Figure (4).

4.2 Empirical strategies and econometric issues

To examine the effect of fiscal transparency on government borrowing costs, our analysis employs a series of econometric techniques, each building on the last to address increasingly complex concerns of endogeneity, dynamic effects, and cross-sectional dependence. A series of stationarity tests was conducted to ensure the robustness of the variables used in the analysis. Specifically, I applied the Augmented Dickey-Fuller (ADF) test and the Phillips-Perron (PP) test for time series variables, alongside the Levin-Lin-Chu (LLC) and Im-Pesaran-Shin (IPS) tests for panel data variables. These tests account for potential unit roots in the data, and for each variable, the null hypothesis of non-stationarity was consistently rejected at conventional significance levels. Thus, the results indicate that all variables used in the study are stationary, validating their suitability for the econometric models

Figure 6: Scatter plot of long-term interest rate concerning FTI (full sample and period from 2006 to 2023)

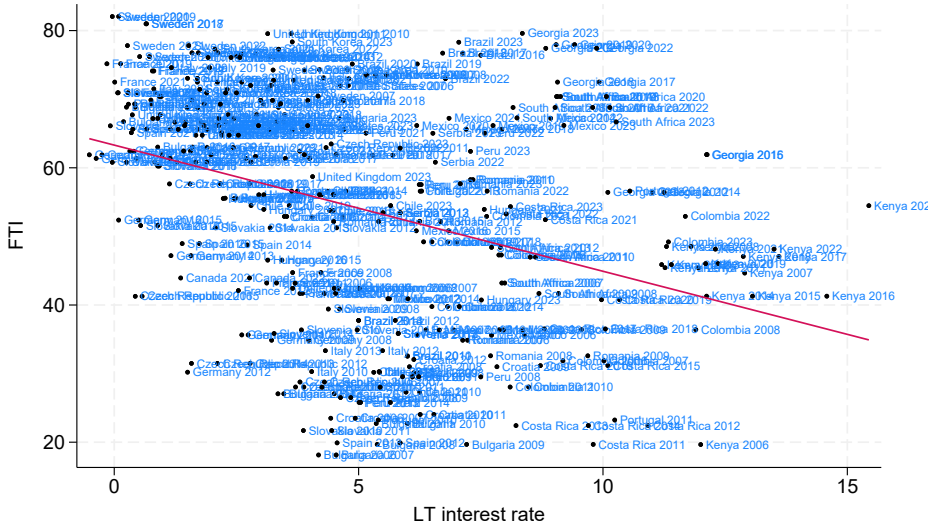
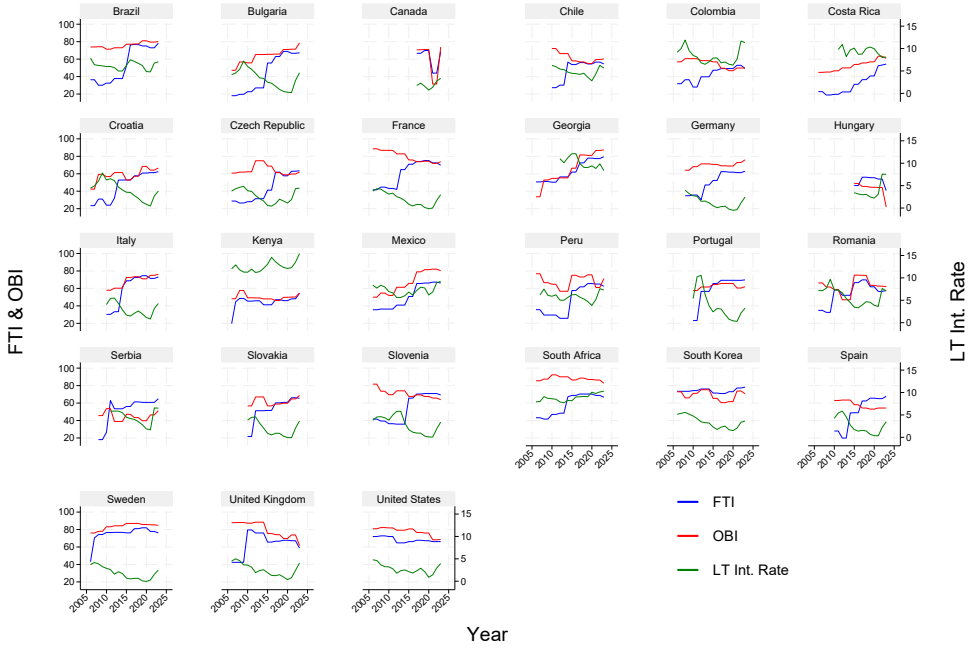


Figure 7: FTI, OBI, and long-term interest rate (all sample)



employed.

Our baseline model utilizes a two-way fixed effects (FE) regression, controlling for both country-specific and time-specific effects to mitigate bias from unobserved heterogeneity (Wooldridge 2010). By including fixed effects for each country and year, this model accounts for any time-invariant country characteristics (e.g., institutional quality) and time-variant global shocks (e.g., economic crises) that may influence borrowing costs independently of fiscal transparency (Baltagi 2005). The baseline model is structured as follows:

$$Y_{it} = \alpha_i + \gamma_t + \beta X_{it} + \delta W_{it}\delta + \epsilon_{it} \tag{1}$$

where Y_{it} is the set of dependent variables (10-years, 3-months, government spreads), X_{it} is the main independent variable, i.e. the fiscal transparency index, the α_i and γ_t denote country and time fixed effects, W_{it} represents control variables, and ϵ_{it} is the error term.

Given that borrowing costs and fiscal transparency may be influenced by shared global factors, the baseline fixed-effects model may suffer from cross-sectional dependence in the residuals (Pesaran 2006). We test it by using the Pesaran (2006) test an it confirms that our data suffer from cross-sectional dependence with a test statistic of 7.036 and a *p-value* equals to 0.000. To correct for this, we apply Driscoll-Kraay standard errors, which are robust to both heteroskedasticity and cross-sectional dependence in panel data (Driscoll & Kraay 1998) This approach ensures that our inference is robust to potential correlations between countries' error terms over time, providing a more reliable baseline estimate.

To address endogeneity concerns—specifically, reverse causality and omitted variable bias—we employ a Two-Stage Least Squares (2SLS) instrumental variable approach, where political competition (Alt & Lassen 2006, Arbatli & Escolano 2015) and internet users (Sarr 2015, ElBerry & Goeminne 2021) serve as an instrument for fiscal transparency respective to the literature. Indeed, governments with good fiscal performances may tend to disclose more of their budget information to be re-elected. Thus,in this case, fiscal performance can lead to greater fiscal transparency reversely. Political competition is measured at the legislature level through a probability that two deputies picked at random from the legislature will be of different parties. The rationale behind is that incumbents who are likely to remain in power in the future will have less incentive to improve transparency. Internet users, in % of the population, is used as a proxy for citizens' access to information and communication technologies, which is anticipated to enhance public awareness and increase the demand for fiscal transparency. Both variables are positively correlated with the FTI and are not expected to exert a direct impact on sovereign yields, therefore this IV approach allows us to isolate the exogenous variation in fiscal transparency, enhancing causal interpretation (Angrist & Pischke 2008).

The first stage of the 2SLS model estimates fiscal transparency as a function of legislative fragmentation, while the second stage estimates borrowing costs as a function of the instrumented fiscal transparency variable:

$$Y_{it} = \pi X_{it} + \delta W_{it} + u_{it} \tag{2}$$

$$Y_{it} = \alpha_i + \gamma_t + \beta \widehat{X}_{it} + \delta W_{it} + \epsilon_{it} \tag{3}$$

This approach helps mitigate potential endogeneity in the fiscal transparency variable, providing a more robust estimate of the causal effect of fiscal transparency on government borrowing costs.

Furthermore, recognizing that government bond yields may exhibit persistence over time, (Diebold & Li 2006) we extend our analysis to a dynamic panel model using the System GMM estimator from Arellano & Bover (1995) and Blundell & Bond (1998). System GMM is useful in settings where the dependent variable depends on its past values. Additionally, GMM corrects for potential endogeneity in lagged borrowing costs and other regressors, as well as autocorrelation and heteroskedasticity in the residuals. The Wooldridge test for autocorrellation in panel data indicates us a statistic of 57.963 and a *p-value* of 0.00 rejecting the null hypothesis of no first-order autocorrelation in our data.

The GMM estimator uses lagged values of the endogenous variables as instruments, addressing both endogeneity and dynamic persistence in borrowing costs. In addition to lagged variables, we include the same external instruments ase before that are assumed to be exogenous, i.e. uncorrelated with the error term across all periods. These external instruments provide further information to address potential endogeneity beyond what lagged variables alone can offer, thus strengthening identification. By combining internal (lagged) and external (exogenous) instruments, System GMM achieves a robust control for endogeneity, making it a suitable approach for dynamic panels with potential cross-sectional correlations, especially when fiscal and economic factors evolve over time. The system-GMM model specification is as follows:

$$Y_{it} = \alpha_i + \gamma_t + \rho Y_{i(t-1)} + \beta X_{it} + \delta W_{it} + \epsilon_{it} \tag{4}$$

where the lagged dependent variable $X_{i(t-1)}$ captures persistence in government bond yields. It has to be noticed that one of the assumption of the system-GMM estimator is that there is no cross-sectional dependence in the errors, it can bias the estimation results, as this estimator does not account for correlation between cross-sectional units. So to use this method we rely on Baltagi (2012) who affirms that cross-sectional dependence is not relevant in small macro-panel (i.e. when $T < 30$, which is the case here).

Even if our sample is relatively small, to account for residual cross-sectional dependence that may arise from unobserved common factors, we apply the dynamic Common Correlated Effects (dyn-CCE) estimator (Pesaran 2006). This estimator allows us to control for these common factors by incorporating cross-sectional averages of the dependent and independent variables, capturing any unobserved global shocks impacting all countries similarly.

The dynamic-CCE model specification is the following:

$$Y_{it} = \alpha_i + \gamma_t + \beta X_{it} + \delta W_{it} + \lambda_i F_t + \epsilon_{it} \tag{5}$$

where F_t represents the cross-sectional averages of the variables, effectively filtering out the unobserved common factors influencing government bond yields across countries. This approach further strengthens our analysis by addressing potential cross-sectional dependence that Driscoll-Kraay adjustments alone may not fully capture. In appendices, we also employ panel corrected standard error (PCSE) modelisation to handle heteroskedasticity and contemporaneous correlation across panels .

Finally, alternatively to panel data regressions and to capture the temporal dynamics of fiscal

transparency's impact on borrowing costs across multiple horizons, we also employ local projections *à la* Jordà (2005). This approach is flexible and allows us to estimate the impulse response of borrowing costs to changes in fiscal transparency, considering the lagged effects of transparency over time. Local projections with control variables help visualize the evolution of borrowing costs following one percentage point changes in transparency, providing insight into the short-term impacts. This method consists of estimating impulse response functions (IRFs) directly from local projections which are equivalent to the VAR approach (Jordà 2023). In the linear specification, we estimate the sovereign bond yield and/or spread for country i at time t as follows:

$$Y_{i,t+h} = \alpha_i + \rho_i Y_{i,t-1} + \beta_h S_{i,t-k} + \sum_{j=1}^{k} \nu_j \prime X_{i,t-k} + \epsilon_{i,t+h} \tag{6}$$

where α_i are country fixed effects to control for unobserved cross-country heterogeneity, ρ_i is an autoregressive term to account for persistence, and $S_{i,t}$ is a one-unit shock to fiscal transparency index. The vector $X_{i,t}$ of control variables is the same as equation (1). The error term is represented by $\epsilon_{i,t}$. We also proceed with a lag-augmentation approach to perform similarly to the Newey-West correction (k=1). The coefficient β_h in the equation traces the effect of a fiscal transparency shock at time t on the long-term interest rate at time t+h (h=1,...,H). Impulse response functions (IRFs) are presented using 90% confidence bands.

$$IRF(H) = \{\beta_0, \beta_1, \ldots, \beta_H\} \tag{7}$$

5 Results

In this section, we analyze the impact of fiscal transparency (FTI) on government borrowing costs, focusing on long-term interest rates (LT Interest Rate). The results across various models provide consistent evidence that FTI significantly reduces borrowing costs, particularly LT interest rates, supporting the view that fiscal transparency enhances fiscal credibility and investor confidence.

Across specifications, in Table (3) we observe a statistically significant and negative relationship between FTI and LT interest rates (Table 3). This suggests that higher transparency in fiscal policy reduces long-term borrowing costs, aligning with Alt & Lassen (2006). Interestingly, when FTI is squared (FTIsq), the coefficient becomes positive, indicating a nonlinear relationship where excessively high transparency could potentially offset some of the benefits. A transparency *fatigue* could appears here reinforcing idea of Siklos (2011) for central banks. The 2SLS results (in Table (7) affirm the baseline findings, with FTI remaining negatively associated with LT interest rates and other borrowing cost proxies. This reinforces the robustness of FTI's impact, suggesting that fiscal transparency causally influences bond yields by fostering market trust, particularly in fragmented legislative environments. To capture the persistence of borrowing costs and potential feedback loops, the system-GMM results (Table (9)) indicate a significant, persistent effect of FTI on borrowing costs over time, demonstrating that transparency has lasting impacts on lowering LT interest rates, even when past values are taken into account. Finally, the dynamic CCE model(Table (10) reveals that FTI remains negatively

associated with LT sovereign yields, even after accounting for correlated shocks among countries. The persistence of this result across models underscores the robustness of fiscal transparency's influence on sovereign risk premiums, reinforcing findings from studies such as Craig & Kopits (1998), Hameed (2005), Bernoth & Wolff (2008), Glennerster & Shin (2008), Bastida et al. (2017) and suggest that financial markets may have greater confidence in the capacity and commitment of a fiscally transparent government to fulfill its financial obligations.

Among other explanatory variables, , the current account balance, and the primary balance, M3 tend to affect negatively the borrowing cost of the public debt which is in line the literature (Cosset & Roy 1991, Maltritz 2012, Alexopoulou et al. 2010, Afonso & Strauch 2007, Laubach 2009, De Simone et al. 2019, Pappas & Kostakis 2020). While the inflation rate, and the REER influence positively the long-term interest rate on public debt, such as in Ardagna et al. (2007) and Nickel & Vansteenkiste (2008).The negative relationship with the crisis dummy could be due to a '*fly to quality*' behavior from the investor during these periods, while the positive coefficient associated to the election dummy show that elections blur the future of a country.

Furthermore,, we explore the effect of FTI's sub-components on borrowing costs to see which fiscal transparency design matter the most. The results show that specific dimensions of transparency (e.g., economic and operational transparency) have distinct impacts on LT interest rates and spreads. This show the importance of the openness of economic data and assumption used in budget document and the role of suprem audit institution to control how the budget is executed. Notably, this analysis provides nuance to the overall FTI-bond yield relationship, aligning with studies that emphasize the differentiated impact of various transparency dimensions (Craig & Kopits 1998).

In addition to the main fiscal transparency index (FTI), we examined alternative measures to assess the robustness of our findings in appendix (C). These alternative measures yield results that are generally consistent with the primary analysis, indicating a negative relationship between transparency and borrowing costs. However, the effects are observed to be less statistically significant across the models. While the directional impact aligns with the baseline FTI results, the reduced significance suggests that these alternative measures capture fiscal transparency in a manner that is either more limited in scope or less directly related to the determinants of borrowing costs. This pattern supports the notion that while transparency broadly contributes to lower borrowing costs, the specificity and comprehensiveness of the FTI used in the primary analysis provide a more precise measure of fiscal transparency's influence, echoing findings in the literature previously mentioned that emphasize the nuanced role of comprehensive fiscal transparency indices.

The results reveal also notable differences in the effect of fiscal transparency on borrowing costs between Advanced Economies (AEs) and Emerging Markets and Developing Economies (EMDEs). In particular, the coefficient on the fiscal transparency index (FTI) is generally stronger and more significant for EMDEs than for AEs. This suggests that transparency reforms may play a more pivotal role in reducing borrowing costs in EMDEs, where information asymmetries and governance challenges are typically more pronounced. For instance, Gelos & Wei (2005) argue that transparency is particularly beneficial in emerging markets by mitigating risks associated with uncertainty and weak institutional frameworks. In contrast, the borrowing costs in AEs appear less sensitive to changes in transparency, possibly due to the established credibility and stability of their fiscal institutions (Bernoth & Wolff 2008). The results align with the notion that transparency has a more marginal

impact in economies with well-functioning institutions, whereas it serves as a critical tool for enhancing credibility in markets with higher perceived risks. These differences underscore the varying degrees of impact that fiscal transparency can have based on the baseline institutional context.

Table 3: Baseline regression results on long-term interest rates

Specification	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable			LT Int. Rate			
Country group	All	All	All	All	Adv. Eco.	Emerging
L.fti		-0.0372**	-0.0248**	-0.0595**	-0.0315***	-0.0206*
		(0.015)	(0.009)	(0.029)	(0.009)	(0.012)
L.ftisq				0.0004		
				(0.000)		
CAPB	-0.1093**		-0.1209**	-0.1208***	-0.0509	-0.1649***
	(0.051)		(0.051)	(0.032)	(0.047)	(0.043)
CAB	-0.0268		-0.0157	-0.0083	0.0261	-0.0284
	(0.022)		(0.024)	(0.023)	(0.036)	(0.031)
logreer	-1.3320		-1.9639*	-1.8169**	1.2608	-2.4418**
	(1.055)		(0.991)	(0.712)	(1.023)	(1.029)
GDP_Prct	-0.1976***		-0.1799***	-0.1808***	-0.1665***	-0.1120***
	(0.043)		(0.040)	(0.030)	(0.054)	(0.039)
VIX	-0.5231***		2.6288***	2.6819***	3.3172***	1.2029
	(0.124)		(0.793)	(0.635)	(0.955)	(1.061)
CB_PR	0.0940		0.0814	0.0803*	0.1939***	0.0721
	(0.074)		(0.076)	(0.044)	(0.055)	(0.057)
Inflation	0.0626		0.0692*	0.0686*	0.2224**	0.0530
	(0.039)		(0.042)	(0.037)	(0.075)	(0.048)
Public_Debt	0.0178**		0.0190**	0.0190***	0.0110	0.0250
	(0.008)		(0.009)	(0.006)	(0.011)	(0.016)
M3	-0.0274**		-0.0342**	-0.0343**	-0.0075	-0.0156
	(0.013)		(0.013)	(0.013)	(0.015)	(0.020)
elec	0.0257		0.0243	0.0353	0.0426	-0.0075
	(0.081)		(0.089)	(0.105)	(0.085)	(0.185)
crisis2	-0.2925		-0.2523	-0.2019	-0.1078	-0.9341***
	(0.226)		(0.245)	(0.223)	(0.280)	(0.311)
Observations	413	406	389	389	208	181
Number of countries	27	27	27	27	14	13
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.7033	0.5264	0.7124	0.9191	0.8611	0.8827

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

The results of the IRFs in Figures (8, 11, 12, 13), suggest that a fiscal transparency shock leads to lower long-term interest rates for horizons at short and medium terms, reflecting an improvement in fiscal credibility and a reduction in risk premia, especially in EMDEs countries. These findings align with the hypothesis that greater fiscal transparency positively influences borrowing costs.

6 Conclusion and policy implications

In this paper, we have studied the effect of fiscal transparency on long- and short-term sovereign bond yields, and government spread relative to either Germany or the USA for 14 advanced economies and 13 emerging countries, in the period 2006-2023. We have constructed a new fiscal transparency index

Table 4: Baseline regression results on short-term interest rates

Specification	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable			ST Int. Rate			
Country group	All	All	All	All	Adv. Eco.	Emerging
L.fti		-0.0210*	-0.0197**	-0.0032	-0.0021	-0.0478***
		(0.011)	(0.009)	(0.064)	(0.003)	(0.015)
L.ftisq				-0.0002		
				(0.001)		
CAPB	-0.0358		-0.0324	-0.0324	0.0475	-0.2196***
	(0.053)		(0.060)	(0.060)	(0.042)	(0.062)
CAB	0.0149		0.0182	0.0143	0.0262	0.0347
	(0.026)		(0.027)	(0.036)	(0.021)	(0.050)
logreer	-1.0981		-1.6287*	-1.6831	1.9848**	-3.6330*
	(0.931)		(0.906)	(1.034)	(0.784)	(1.855)
GDP_Prct	-0.0651		-0.0559	-0.0558	-0.0601*	-0.0842
	(0.073)		(0.073)	(0.072)	(0.037)	(0.075)
VIX	-0.4214**		1.5194*	1.4901*	-0.0859	3.2789*
	(0.159)		(0.865)	(0.821)	(0.564)	(2.037)
CB_PR	0.8191***		0.8107***	0.8098***	0.6604***	0.7622***
	(0.078)		(0.086)	(0.088)	(0.111)	(0.098)
Inflation	0.1713**		0.1715**	0.1715**	0.0178	0.1595
	(0.068)		(0.069)	(0.070)	(0.044)	(0.109)
Public_Debt	0.0033		0.0041	0.0040	-0.0075	-0.0006
	(0.008)		(0.009)	(0.009)	(0.005)	(0.024)
M3	0.0172		0.0161	0.0161	0.0121	-0.0168
	(0.017)		(0.019)	(0.019)	(0.031)	(0.023)
elec	0.0669		0.0678	0.0623	0.0385	0.1890
	(0.095)		(0.104)	(0.104)	(0.070)	(0.249)
crisis2	-0.2104		-0.1281	-0.1527	-0.2467	0.2212
	(0.394)		(0.375)	(0.403)	(0.237)	(0.390)
Observations	402	395	378	378	207	171
Number of countries	27	27	27	27	14	13
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.8258	0.7894	0.8157	0.8159	0.9409	0.9130

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 5: Regression Results for Calculated Spread of Germany

Specification	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable			Spread vàv Germany			
Country group	All	All	All	All	Adv. Eco.	Emerging
L.fti		-0.0448***	-0.0366*	0.0117	-0.0288***	-0.0940**
		(0.010)	(0.021)	(0.097)	(0.009)	(.0418)
L.ftisq				-0.0005		
				(0.001)		
CAPB	-0.1828		-0.1989*	-0.1990*	-0.0514	-0.2874***
	(0.109)		(0.106)	(0.106)	(0.056)	(0.087)
CAB	0.0341		0.0681	0.0595	0.0877**	0.0931
	(0.087)		(0.083)	(0.090)	(0.044)	(0.074)
logreer	5.7694		4.8601	4.5949	2.8676**	12.5012***
	(3.857)		(3.728)	(3.445)	(1.392)	(2.353)
GDP_Prct	-0.1931**		-0.1791**	-0.1768**	-0.0751	-0.1365
	(0.075)		(0.079)	(0.078)	(0.067)	(0.099)
VIX	0.0277		-2.2835	-2.3749	-0.7052	-4.8092**
	(0.265)		(1.571)	(1.613)	(1.131)	(2.143)
CB_PR	0.1024		0.0434	0.0483	-0.0951	0.2127*
	(0.161)		(0.162)	(0.164)	(0.132)	(0.124)
Inflation	0.0145		0.0753	0.0758	0.2918***	0.1099
	(0.135)		(0.118)	(0.115)	(0.081)	(0.106)
Public_Debt	0.0253		0.0274	0.0269	0.0195**	0.0652**
	(0.021)		(0.023)	(0.023)	(0.010)	(0.030)
M3	-0.0098		-0.0078	-0.0073	0.0241	0.0359
	(0.028)		(0.029)	(0.028)	(0.036)	(0.051)
elec	-0.1103		-0.1038	-0.1152	-0.0368	-0.2100
	(0.194)		(0.165)	(0.166)	(0.156)	(0.354)
crisis2	1.0610		1.2005	1.1341	0.8865**	0.8364
	(0.846)		(1.018)	(1.006)	(0.437)	(0.852)
Observations	422	415	397	397	208	189
Number of countries	27	27	27	27	14	13
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.3078	0.6971	0.3226	0.3248	0.6271	0.7525

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 6: Regression Results for Calculated Spread of USA

Specification	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable			Spread vàv USA			
Country group	All	All	All	All	Adv. Eco.	Emerging
L.fti		-0.0462***	-0.0351**	-0.1302	-0.0315***	-0.0763***
		(0.009)	(0.015)	(0.104)	(0.007)	(0.023)
L.ftisq				0.0010		
				(0.001)		
CAPB	-0.1924*		-0.2043**	-0.2041**	-0.0509	-0.2549***
	(0.094)		(0.091)	(0.092)	(0.035)	(0.080)
CAB	-0.0629		-0.0329	-0.0158	0.0261	-0.0183
	(0.069)		(0.069)	(0.077)	(0.027)	(0.074)
logreer	1.2387		0.1407	0.6637	1.2608	2.9097
	(2.898)		(2.832)	(2.630)	(0.915)	(2.395)
GDP_Prct	-0.1872***		-0.1677***	-0.1722***	-0.1665***	-0.0558
	(0.054)		(0.051)	(0.047)	(0.039)	(0.106)
VIX	0.0214		-0.9924	-0.8121	2.3368***	-3.9460*
	(0.180)		(1.746)	(1.673)	(0.645)	(2.054)
CB_PR	0.1784*		0.1584	0.1488	0.1939***	0.2562**
	(0.101)		(0.105)	(0.092)	(0.058)	(0.120)
Inflation	-0.1976		-0.1516	-0.1525	0.2224***	-0.1518
	(0.128)		(0.112)	(0.117)	(0.054)	(0.104)
Public_Debt	0.0155		0.0180	0.0188	0.0110	0.0488
	(0.015)		(0.017)	(0.017)	(0.007)	(0.033)
M3	-0.0336		-0.0320	-0.0331	-0.0075	0.0033
	(0.025)		(0.023)	(0.023)	(0.017)	(0.056)
elec	-0.0637		-0.0231	-0.0007	0.0426	-0.0792
	(0.158)		(0.148)	(0.163)	(0.115)	(0.397)
crisis2	0.6817		0.8266	0.9576	-0.1078	0.3372
	(0.597)		(0.686)	(0.720)	(0.277)	(0.691)
Observations	422	415	397	397	208	189
Number of country	27	27	27	27	14	13
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.3096	0.7239	0.3137	0.3239	0.8400	0.5478

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 7: 2SLS Regression Results for Long-Term and Short-Term Interest Rates

Dependent variable	LT_Intrst			ST_Intrst		
Specification	(1)	(2)	(3)	(4)	(5)	(6)
Country group	All	AE	EMDEs	All	AE	EMDEs
lfti	-0.0566***	-0.1072***	-0.0935***	-0.0329***	-0.0155***	-0.0670***
	(0.009)	(0.011)	(0.017)	(0.011)	(0.005)	(0.023)
CAPB	-0.1158***	-0.0126	-0.1632***	-0.0084	0.0557	-0.1974***
	(0.035)	(0.033)	(0.044)	(0.038)	(0.042)	(0.058)
CAB	-0.0128	0.0380	0.0620	-0.0134	0.0179	-0.0495
	(0.027)	(0.043)	(0.039)	(0.034)	(0.025)	(0.047)
logreer	-2.8237***	-0.8045	-3.3913***	-2.0533**	0.3895	-6.1183***
	(0.808)	(1.488)	(1.096)	(1.044)	(0.540)	(2.133)
GDP_Prct	-0.0523***	-0.0401**	0.0064	-0.0305*	-0.0156	-0.0513*
	(0.018)	(0.020)	(0.024)	(0.017)	(0.012)	(0.027)
CB_PR	0.2612***	0.3151***	0.2121***	0.8288***	0.8840***	0.8546***
	(0.038)	(0.074)	(0.053)	(0.055)	(0.068)	(0.085)
Inflation	0.1096***	0.2084***	0.1229***	0.0604	0.0705**	-0.0510
	(0.028)	(0.040)	(0.045)	(0.042)	(0.029)	(0.091)
Public_Debt	-0.0067	-0.0040	0.0693***	-0.0040	-0.0051	-0.0240
	(0.006)	(0.008)	(0.020)	(0.005)	(0.004)	(0.021)
M3	-0.0558***	-0.0718***	-0.0048	0.0079	0.0010	-0.0373**
	(0.013)	(0.019)	(0.018)	(0.012)	(0.018)	(0.017)
elec	0.0096	-0.0652	0.1300	0.0246	0.0356	-0.0027
	(0.119)	(0.152)	(0.207)	(0.120)	(0.083)	(0.234)
crisis2	-0.3796**	0.0941	-1.1985***	-0.0670	0.0705	-0.0712
	(0.178)	(0.177)	(0.269)	(0.141)	(0.130)	(0.293)
Observations	371	208	162	362	207	154
Number of groups	25	14	11	25	14	11
R-squared	0.5940	0.6866	0.4253	0.7862	0.8962	0.7912
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Hansen statistic (p-value)	0.2502	0.2294	0.0677	0.0036	0.8528	0.0002
Kleibergen-Paap statistic (p-value)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Figure 8: Panel local projections. Main variable: Long-Term interest rate

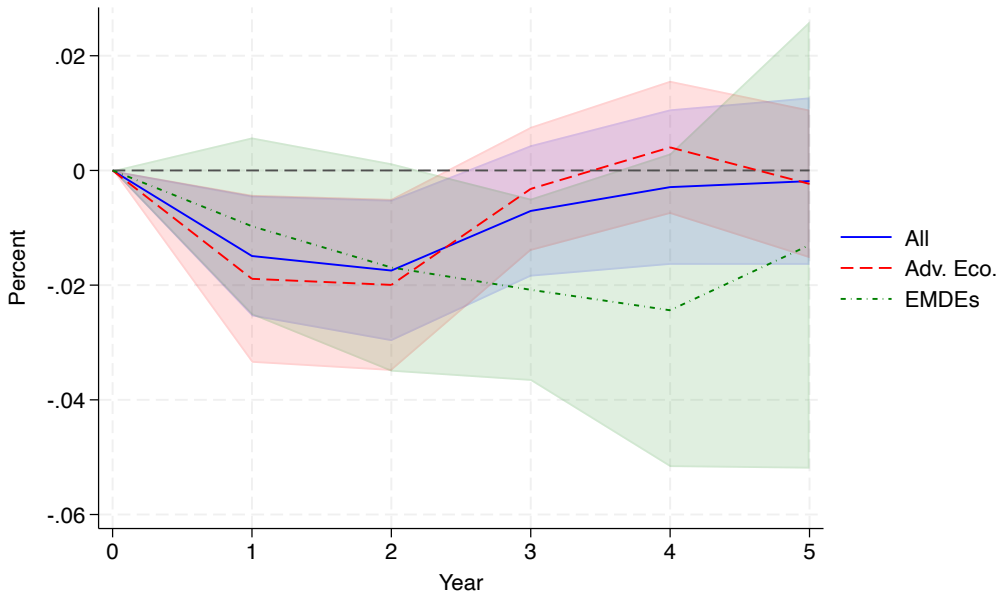


Table 8: 2SLS Regression Results for Government Spreads (Germany and USA)

Dependent variable	Spread GER			Spread USA		
Specification	(1)	(2)	(3)	(4)	(5)	(6)
Country group	All	AE	EMDEs	All	AE	EMDEs
lfti	0.0227	-0.0249*	0.0665**	-0.0514***	-0.0963***	-0.0658***
	(0.014)	(0.014)	(0.027)	(0.010)	(0.011)	(0.017)
CAPB	-0.1065**	-0.0202	-0.3631***	-0.1221***	-0.0372	-0.2072***
	(0.046)	(0.052)	(0.080)	(0.034)	(0.034)	(0.041)
CAB	-0.0016	0.1117**	-0.0880*	-0.0173	0.0219	0.0305
	(0.036)	(0.049)	(0.052)	(0.027)	(0.039)	(0.037)
logreer	1.1789	4.2771***	2.4591	-2.4643***	0.6491	-3.7101***
	(1.218)	(0.972)	(2.327)	(0.756)	(1.408)	(1.140)
GDP_Prct	-0.0840***	-0.0535*	-0.1193***	-0.0904***	-0.0792***	-0.0558**
	(0.032)	(0.029)	(0.044)	(0.017)	(0.020)	(0.023)
CB_PR	0.0662	-0.2486***	0.1841*	0.0524	0.0024	0.0211
	(0.072)	(0.071)	(0.109)	(0.037)	(0.073)	(0.052)
Inflation	0.0868*	0.1757***	0.0290	0.0770***	0.1457***	0.1009**
	(0.048)	(0.045)	(0.086)	(0.030)	(0.040)	(0.042)
Public_Debt	0.0196**	0.0099	-0.0221	0.0117*	0.0132	0.0412**
	(0.009)	(0.008)	(0.031)	(0.006)	(0.008)	(0.021)
M3	-0.0423*	-0.0255	-0.0468*	-0.0603***	-0.0566***	-0.0319*
	(0.022)	(0.021)	(0.028)	(0.012)	(0.019)	(0.019)
elec	-0.0627	-0.0892	-0.3831	0.0017	-0.0307	-0.0228
	(0.156)	(0.150)	(0.299)	(0.115)	(0.139)	(0.199)
crisis2	-0.0911	0.0386	0.1824	0.1472	0.4555**	-0.3755
	(0.279)	(0.242)	(0.575)	(0.158)	(0.184)	(0.251)
Observations	371	208	162	371	208	162
Number of country_num	25	14	11	25	14	11
R-squared	0.1453	0.2685	0.2746	0.4557	0.5482	0.3173
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Hansen statistic (p-value)	0.0003	0.2282	0.0798	0.2799	0.0668	0.0371
Kleibergen-Paap statistic (p-value)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 9: System-GMM Estimation Results

Specification	(1)	(2)	(3)	(4)
Dependent variable	LT Int. Rate	ST Int. Rate	Spread GER	Spread USA
L.LT_Intrst	0.4481***			
	(0.114)			
L.ST_Intrst		0.2621		
		(0.189)		
L.spreadGER			0.0621	
			(0.218)	
L.spreadUSA				0.4319***
				(0.113)
lfti	-0.0323**	-0.0106	-0.0336	-0.0352*
	(0.016)	(0.010)	(0.038)	(0.018)
CAPB	-0.0889	-0.0166	0.1195	0.0992
	(0.140)	(0.209)	(0.654)	(0.182)
CAB	-0.1169	0.0255	-0.1614	-0.1747
	(0.104)	(0.121)	(0.572)	(0.189)
REER_2007	0.0064	-0.0497	0.3804*	0.1337**
	(0.039)	(0.078)	(0.212)	(0.057)
GDP_Prct	0.0410	0.0134	-0.0577	-0.0045
	(0.047)	(0.051)	(0.154)	(0.064)
VIX	0.0358	-0.0301	-0.0479	0.0539
	(0.047)	(0.067)	(0.192)	(0.068)
CB_PR	0.4101***	0.9452***	-0.1702	0.2093
	(0.154)	(0.230)	(0.416)	(0.183)
Inflation	0.0512	0.0228	0.3986*	0.0736
	(0.098)	(0.126)	(0.225)	(0.124)
Public_Debt	0.0149	0.0198	0.0385	0.0234
	(0.015)	(0.014)	(0.081)	(0.025)
M3	-0.0341	0.0547	-0.0739	-0.0456
	(0.028)	(0.055)	(0.097)	(0.049)
elec	2.2201***	1.9932*	1.9910	2.1955*
	(0.700)	(1.106)	(3.275)	(1.244)
crisis2	-0.1409	-0.2854	3.1430	1.7374**
	(0.494)	(0.831)	(2.626)	(0.733)
Observations	371	360	371	371
Number of countries	25	24	25	25
Number of instruments	23	23	23	23
AR(1)	0.0162	0.0824	0.5739	0.0827
AR(2)	0.801	0.569	0.847	0.887
Hansen statistic (p-value)	0.9658	0.3192	0.2548	0.2548

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 10: Dynamic Common Correlated Effects (dyn-CCE) Model Results

Specification	(1)	(2)	(3)	(4)
Dependent variable	LT Int. Rate	ST Int. Rate	Spread GER	Spread USA
Mean Group				
L.LT_Intrst	0.4078***			
	(0.066)			
L.ST_Intrst		0.0807		
		(0.085)		
L.spreadUSA			0.5036***	
			(0.084)	
L.preadGER				0.4016***
				(0.054)
lfti	-0.0211**	-0.0002	-0.0129	-0.0181
	(0.008)	(0.009)	(0.010)	(0.023)
Pooled				
CAPB	-0.0272	-0.0009	-0.0766	-0.0567
	(0.133)	(0.480)	(0.098)	(0.726)
CAB	0.0160	-0.0903	-0.0511	-0.0393
	(0.321)	(0.438)	(0.189)	(0.822)
REER_2007	-0.0144	-0.0079	0.0105	-0.0035
	(0.052)	(0.141)	(0.140)	(0.215)
GDP_Prct	-0.0080	0.0653	-0.0113	-0.0413
	(0.075)	(0.130)	(0.058)	(0.392)
VIX	0.0110	0.0484	-0.0138	-0.0526
	(0.089)	(0.150)	(0.043)	(0.271)
CB_PR	0.1618	0.9233	0.0867	0.0657
	(0.453)	(0.889)	(0.183)	(0.591)
Inflation	0.0250	-0.0070	-0.0116	0.0855
	(0.168)	(0.345)	(0.288)	(0.300)
Public_Debt	0.0008	-0.0035	-0.0013	-0.0019
	(0.048)	(0.142)	(0.148)	(0.298)
M3	-0.0323	0.0233	-0.0387	0.0110
	(0.074)	(0.179)	(0.170)	(0.205)
elec	0.0966	-0.0211	0.1467	0.1234
	(0.468)	(0.583)	(0.362)	(1.536)
crisis2	0.0531	-0.4172	0.3247	0.5939
	(0.833)	(2.155)	(1.818)	(2.494)
Observations	240	192	256	256
R-squared	0.4247	0.1784	0.2550	0.3969
Number of groups	15	12	16	16

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 11: Sub indices 2WFE

Specification	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	LT_Intrst	LT_Intrst	LT_Intrst	ST_Intrst	ST_Intrst	ST_Intrst
Country group	All	AE	EMDEs	All	AE	EMDEs
L.fti_1	-0.0005	-0.0014	0.0193	0.0217*	-0.0057	0.0593***
	(0.009)	(0.009)	(0.013)	(0.013)	(0.009)	(0.019)
L.fti_2	-0.0127	0.0015	-0.0348***	-0.0252**	0.0050	-0.0553***
	(0.008)	(0.010)	(0.011)	(0.011)	(0.008)	(0.011)
L.fti_3	-0.0108	-0.0105	0.0121	0.0129	0.0086	0.0054
	(0.014)	(0.010)	(0.018)	(0.010)	(0.011)	(0.014)
L.fti_4	-0.0036	-0.0092**	-0.0129	-0.0080**	-0.0018	-0.0111
	(0.006)	(0.003)	(0.012)	(0.004)	(0.001)	(0.007)
L.fti_5	0.0002	-0.0438*	0.0062	-0.0229**	-0.0055	-0.0383***
	(0.011)	(0.022)	(0.015)	(0.009)	(0.005)	(0.012)
CAPB	-0.1195**	-0.0388	-0.1379**	-0.0469	0.0455**	-0.2285**
	(0.052)	(0.040)	(0.057)	(0.063)	(0.018)	(0.102)
CAB	-0.0214	0.0091	-0.0376	0.0182	0.0342	0.0584
	(0.023)	(0.031)	(0.034)	(0.029)	(0.034)	(0.037)
logreer	-1.9938**	1.3287	-1.5136	-1.6776*	2.2599	-2.2328
	(0.843)	(0.899)	(1.423)	(0.936)	(1.400)	(2.127)
GDP_Prct	-0.1806***	-0.1477***	-0.0882	-0.0762	-0.0495	-0.0707
	(0.044)	(0.034)	(0.050)	(0.070)	(0.040)	(0.106)
VIX	2.5041***	1.6756**	0.3722	1.2878	-0.2859	4.1645**
	(0.760)	(0.634)	(1.183)	(0.825)	(0.361)	(1.737)
CB_PR	0.0817	0.2122***	0.0513	0.7535***	0.6691***	0.6618***
	(0.073)	(0.048)	(0.082)	(0.082)	(0.173)	(0.139)
Inflation	0.0653	0.1805***	0.0775	0.1479**	0.0253	0.2120*
	(0.042)	(0.054)	(0.054)	(0.060)	(0.046)	(0.111)
Public_Debt	0.0187*	-0.0028	0.0339*	-0.0073	-0.0102**	0.0088
	(0.009)	(0.010)	(0.017)	(0.008)	(0.004)	(0.027)
M3	-0.0343**	0.0077	-0.0126	0.0062	0.0171**	-0.0086
	(0.013)	(0.014)	(0.023)	(0.016)	(0.008)	(0.020)
elec	0.0266	0.0223	0.0239	0.0834	0.0356	0.1702
	(0.090)	(0.095)	(0.121)	(0.109)	(0.044)	(0.267)
crisis2	-0.2626	0.2983	-1.0000***	-0.1553	-0.0920	-0.2002
	(0.238)	(0.276)	(0.180)	(0.294)	(0.149)	(0.468)
Observations	389	208	181	378	207	171
R-squared	0.7159	0.8852	0.6796	0.8364	0.9278	0.8674
Number of country_num	27	14	13	27	14	13

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 12: Sub indices 2WFE

Specification	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	Spread GER	Spread GER	Spread GER	Spread USA	Spread USA	Spread USA
Country group	All	AE	EMDEs	All	AE	EMDEs
L.fti_1	0.0235	0.0263	0.0221	0.0105	-0.0014	0.0389
	(0.015)	(0.016)	(0.043)	(0.018)	(0.007)	(0.034)
L.fti_2	-0.0595***	-0.0167	-0.0943***	-0.0493*	0.0015	-0.1142**
	(0.019)	(0.014)	(0.032)	(0.025)	(0.007)	(0.045)
L.fti_3	-0.0288	-0.0334	-0.0082	0.0059	-0.0105	0.0491*
	(0.025)	(0.020)	(0.039)	(0.017)	(0.009)	(0.029)
L.fti_4	0.0073	-0.0103*	-0.0076	0.0001	-0.0092***	-0.0133
	(0.008)	(0.005)	(0.014)	(0.006)	(0.003)	(0.013)
L.fti_5	0.0214	-0.0499	0.0253	0.0268	-0.0438***	0.0450
	(0.017)	(0.031)	(0.025)	(0.022)	(0.013)	(0.028)
CAPB	-0.1629*	-0.0294	-0.1992*	-0.1833**	-0.0388	-0.1220*
	(0.091)	(0.052)	(0.102)	(0.077)	(0.034)	(0.064)
CAB	0.0285	0.0376	0.0531	-0.0600	0.0091	-0.0733
	(0.076)	(0.043)	(0.090)	(0.061)	(0.031)	(0.071)
logreer	4.2939	2.0878	11.8774***	0.4373	1.3287	3.6994
	(3.366)	(1.330)	(4.404)	(2.551)	(0.898)	(3.074)
GDP_Prct	-0.1704**	-0.0819	-0.1055	-0.1513***	-0.1477***	-0.0019
	(0.063)	(0.061)	(0.103)	(0.054)	(0.032)	(0.089)
VIX	-2.0614	-2.6807*	-5.1062**	-0.8705	0.6951	-4.4722
	(1.425)	(1.418)	(2.374)	(1.623)	(0.669)	(3.452)
CB_PR	0.0417	-0.0873	0.1297	0.1466	0.2122***	0.1238
	(0.127)	(0.095)	(0.140)	(0.096)	(0.054)	(0.114)
Inflation	0.0585	0.1979***	0.1475	-0.1505	0.1805***	-0.0679
	(0.102)	(0.065)	(0.118)	(0.105)	(0.046)	(0.077)
Public_Debt	0.0409**	0.0022	0.0914*	0.0271	-0.0028	0.0942***
	(0.019)	(0.012)	(0.051)	(0.016)	(0.007)	(0.034)
M3	-0.0067	0.0335	0.0383	-0.0283	0.0077	0.0122
	(0.029)	(0.030)	(0.054)	(0.027)	(0.018)	(0.042)
elec	-0.1018	-0.0619	-0.1780	-0.0121	0.0223	-0.0021
	(0.176)	(0.105)	(0.352)	(0.140)	(0.106)	(0.251)
crisis2	0.7739	1.0063*	0.7465	0.6269	0.2983	0.2220
	(0.843)	(0.532)	(0.953)	(0.530)	(0.295)	(0.634)
Observations	397	208	189	397	208	189
R-squared	0.3996		0.3663		0.8677	
Number of country_num	27	14	13	27	14	13

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 13: System GMM Model Results with sub-indices

Specification	(1)	(2)	(3)	(4)
Dependent variable	LT Int. Rate	ST Int. Rate	SpreadGER	Spread USA
L.LT_Intrst	0.5478*			
	(0.315)			
L.ST_Intrst		0.1768		
		(0.294)		
L.spreadGER			0.5261	
			(0.466)	
L.spreadUSA				0.5562**
				(0.259)
L.fti_1	0.0084	0.0879	0.0375	0.0099
	(0.026)	(0.091)	(0.083)	(0.033)
L.fti_2	0.0059	-0.0526	0.0270	0.0091
	(0.025)	(0.080)	(0.076)	(0.035)
L.fti_3	-0.0079	-0.0237	0.0020	-0.0100
	(0.030)	(0.052)	(0.062)	(0.044)
L.fti_4	-0.0046	-0.0171	-0.0049	-0.0107
	(0.017)	(0.022)	(0.028)	(0.020)
L.fti_5	-0.0450*	-0.0249	-0.1505	-0.0703*
	(0.027)	(0.048)	(0.094)	(0.036)
CAPB	-0.2392	0.0045	-1.0097	-0.3597
	(0.393)	(0.775)	(1.241)	(0.552)
CAB	-0.3092	-0.2799	-0.4783	-0.4086
	(0.249)	(0.519)	(0.602)	(0.316)
logreer	4.8567	15.5727	-2.6807	-1.7262
	(6.054)	(25.969)	(39.131)	(9.825)
GDP_Prct	-0.0473	-0.1954	-0.0614	-0.0763
	(0.089)	(0.175)	(0.127)	(0.108)
VIX	0.0079	-0.1723	0.0416	0.0377
	(0.102)	(0.172)	(0.215)	(0.145)
CB_PR	-0.1954	-0.0513	-0.9358	-0.3593
	(0.366)	(0.815)	(1.041)	(0.291)
Inflation	0.3293**	0.6134	0.4554	0.3114*
	(0.136)	(0.548)	(0.403)	(0.173)
Public_Debt	0.0055	-0.0212	-0.0395	-0.0111
	(0.030)	(0.056)	(0.086)	(0.036)
M3	-0.0067	0.0706	-0.0912	-0.0727
	(0.113)	(0.256)	(0.277)	(0.126)
elec	0.8793	1.1006	1.7236	1.0797
	(2.141)	(3.580)	(4.335)	(2.797)
crisis2	-0.5431	0.6639	-2.2347	0.1548
	(3.066)	(5.963)	(8.076)	(4.151)
Observations	371	360	371	371
Number of country	25	24	25	25
Number of instruments	21	21	21	21
AR(1) (p-value)	0.2788	0.5944	0.4263	0.2580
AR(2) (p-value)		0.9192	0.3793	0.2152
Hansen statistic(p-value)	0.9314	0.8631	0.8277	0.6416

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

that takes into account the whole stakeholders of the budget process. Afterward, we assessed how this fiscal transparency index helps reduce government borrowing costs. Based on our results from diverse panel data regressions techniques which have helped us to get around the problems of endogeneity, cross-sectional dependence, etc., we find that the dynamic impact of fiscal transparency on bond yield is negative and statistically significant, implying lower interest rates on public debt. Moreover, economic, and operational transparency also contribute to reducing government borrowing costs.

From a policy perspective, we can then highlight that fiscal transparency matters for governments to send a positive signal to the markets regarding their fiscal position and trajectory and thus reduce their borrowing costs. Economic, procedural, and operational transparency are the ones that play a significant role in fiscal transparency design. In other words data availability, tasks, and/or power of IFIs, legislature, and SAIs should be improved to enhance investors' confidence in the country and therefore ask investors to reduce their risk premium on sovereign yields.

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Appendix A Sub-indices weight and Principal component analysis (PCA)

In constructing the fiscal transparency index, we use Principal Component Analysis (PCA) to derive weights for the five sub-indices, ensuring each component's variance contribution is optimally represented. PCA is a dimensionality reduction technique that identifies patterns in correlated variables by transforming them into a set of uncorrelated principal components (Jolliffe 2005). This method is particularly useful for our index construction as it assigns weights based on the variance each sub-index explains, prioritizing components that capture the most significant information about fiscal transparency. The resulting principal components are linear combinations of the original sub-indices, with the first component (PC1) typically capturing the largest share of the variance in the data.

By using PCA, we avoid arbitrary weighting schemes and instead rely on a statistical basis that reflects the underlying structure of the data. For each sub-index, PCA provides loadings (or coefficients) that represent the weight of that sub-index in the overall index. Formally, let X represent the matrix of standardized sub-indices, then the first principal component PC1 can be expressed as:

$$PC1 = \omega_1 X_1 + \omega_2 X_2 + \cdots + \omega_k X_k \tag{8}$$

where $\omega_1, \omega_2, \ldots, \omega_k$ are the weights derived from PCA for sub-indices $X_1, X_2, \ldots, X_k$. These weights maximize the variance captured by PC1 , ensuring that the constructed fiscal transparency index emphasizes the most informative aspects of fiscal transparency, such as budget disclosure, independent fiscal oversight, and audit effectiveness, thereby enhancing the interpretability and robustness of the index (Stock & Watson 2002).

Appendix B Further data description

Figure 9: Heatmap of Correlations (Advanced economies sample)

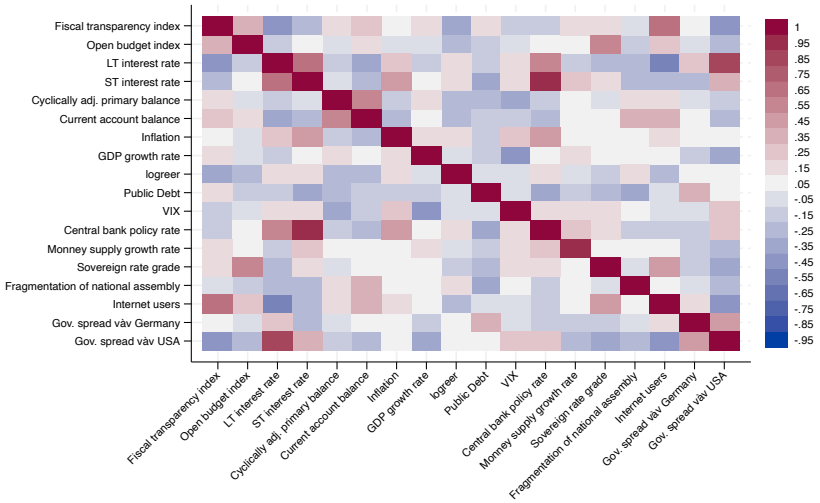

Figure 10: Heatmap of Correlations (Emerging countries sample)

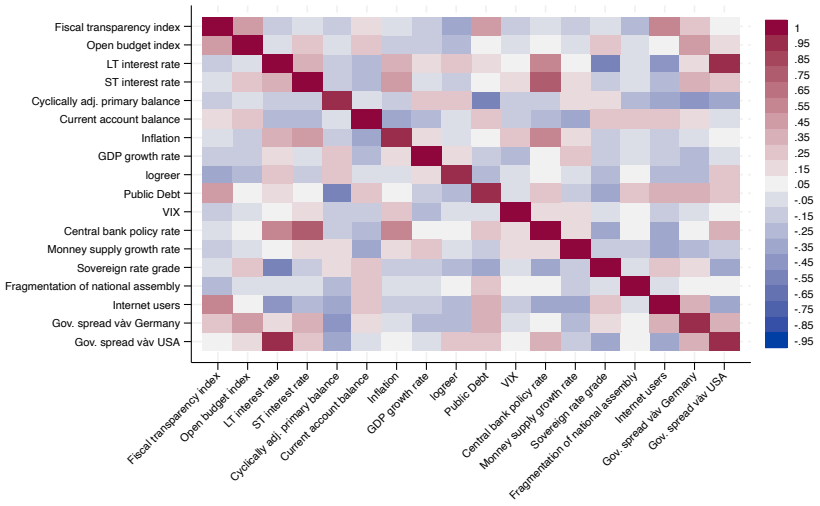

Table 14: Definition and data sources of variables used

Variable	Definition	Source
Long-term interest rate on public debt	10-years government bonds, measured as percentage	OECD, National Central Banks
Short-term interest rate on public debt	3-months government bonds, measured as percentage	OECD, National Central Banks
FTI	Fiscal Transparency Index captures the public availability and comprehensiveness of information from budget documents from the government, the resources and tasks performed by national IFIs ex-ante to the vote of the budget, and SAIs' ex-post tasks and resources. Measured from 0 to 100	Author's computation
OBI	The index measures the public availability of eight key budget documents promptly and the comprehensiveness of budget information included in those documents	Open Budget Survey (OBS) from the International Budget Partnership (IBP)
Real GDP growth rate	Annual percentage increase in the value of all goods and services produced by an economy, adjusted for inflation.	IMF World Economic Outlook Database
Inflation	Annual percentage of average consumer prices are year-on-year changes.	IMF World Economic Outlook Database

Continued on next page

Table 14 continued from previous page

Variable	Definition	Source
Cyclically Adjusted Primary Balance (CAPB)	Government's budget balance adjusted for the effects of the economic cycle, excluding interest payments on outstanding debt, measured in percentage of GDP.	IMF World Economic Outlook Database
Public Debt	Government gross debt consists of all liabilities that require payment or payments of interest, measured as a percentage of GDP	IMF World Economic Outlook Database
Current Account Balance	All transactions other than financial and capital items, i.e., goods and services, income, and current transfers	IMF World Economic Outlook Database
CBOE Volatility Index (VIX)	A measure of market expectations for near-term volatility conveyed by stock index option prices on the S&P 500 market.	Chicago Board Options Exchange
Central bank policy rate	Key policy rate or the benchmark interest rate, is the rate at which a central bank lends money to commercial banks or sets the target rate for overnight lending in the interbank market.	Bank of International Settlements (BIS) and Central Banks
REER	Country's currency value relative to a basket of other major currencies adjusted for inflation. Base 100 in 2007, logarithm scale	Darvas (2012)
Internet individual users	Internet users are individuals who have used the Internet (from any location) in the last 3 months. The Internet can be used via a computer, mobile phone, personal digital assistant, games machine, digital TV, etc. Expressed in % of the population.	World Development Indicators, Quality of Government
Fragmentation of legislature	The probability that two deputies picked at random from the legislature will be of different parties.	Cruz et al. (2020)
M3	Money supply, measured by M3, growth rate previous period.	FRED

Continued on next page

Table 14 continued from previous page

Variable	Definition	Source
Election	Dummy variable = 1 if a legislative or executive election happened in this year.	Cruz et al. (2020) and author's computation
Government bond spread	10-year foreign-currency-denominated government bond spreads vis-à-vis the U.S. or Germany benchmark	Author's computation.

Appendix C Robustness: alternative measures, models

Table 15: Regression Results with Discroll-Kraay standard errors for LT Interest Rate

Specification	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	LT_Intrst	LT_Intrst	LT_Intrst	LT_Intrst	LT_Intrst	LT_Intrst
Country group	All	All	AE	AE	EMDEs	EMDEs
lfti	-0.0248*	-0.0595**	-0.0315*	-0.0665	-0.0206	-0.1071**
	(0.013)	(0.026)	(0.015)	(0.054)	(0.016)	(0.042)
lftisq		0.0004*		0.0003		0.0009**
		(0.000)		(0.000)		(0.000)
CAPB	-0.1209***	-0.1208***	-0.0509	-0.0484	-0.1649***	-0.1685***
	(0.028)	(0.028)	(0.036)	(0.037)	(0.054)	(0.054)
CAB	-0.0157	-0.0083	0.0261	0.0357	-0.0284	-0.0128
	(0.032)	(0.030)	(0.033)	(0.030)	(0.040)	(0.036)
logreer	-1.9639**	-1.8169**	1.2608	1.4207	-2.4418**	-1.9430*
	(0.760)	(0.740)	(0.922)	(0.891)	(0.988)	(1.064)
GDP_Prct	-0.1799***	-0.1808***	-0.1665**	-0.1653**	-0.1120**	-0.1175**
	(0.048)	(0.048)	(0.072)	(0.070)	(0.042)	(0.043)
VIX	0.4815***	0.4843***	-0.0578	-0.0534	0.5100**	0.4861**
	(0.130)	(0.126)	(0.111)	(0.116)	(0.181)	(0.186)
CB_PR	0.0814*	0.0803*	0.1939***	0.2027***	0.0721	0.0636
	(0.044)	(0.044)	(0.061)	(0.061)	(0.064)	(0.066)
Inflation	0.0692	0.0686	0.2224**	0.2212***	0.0530	0.0569
	(0.049)	(0.050)	(0.077)	(0.075)	(0.078)	(0.078)
Public_Debt	0.0190***	0.0190***	0.0110	0.0106	0.0250	0.0280
	(0.005)	(0.005)	(0.009)	(0.009)	(0.021)	(0.020)
M3	-0.0342*	-0.0343*	-0.0075	-0.0044	-0.0156	-0.0183
	(0.016)	(0.016)	(0.018)	(0.019)	(0.014)	(0.014)
elec	0.0243	0.0353	0.0426	0.0414	-0.0075	0.0500
	(0.094)	(0.093)	(0.144)	(0.143)	(0.119)	(0.120)
crisis2	-0.2523	-0.2019	-0.1078	-0.0600	-0.9341***	-0.8380***
	(0.229)	(0.230)	(0.341)	(0.363)	(0.236)	(0.197)
Observations	389	389	208	208	181	181
Number of groups	27	27	14	14	13	13
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9186	0.9191	0.8854	0.8865	0.8827	0.8875

Note: Driscoll-Kraay standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 16: Regression Results with Discroll-Kraay standard errors for ST Interest Rate

Specification	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	ST_Intrst	ST_Intrst	ST_Intrst	ST_Intrst	ST_Intrst	ST_Intrst
Country group	All	All	AE	AE	EMDEs	EMDEs
lfti	-0.0197**	-0.0032	-0.0021	-0.0019	-0.0478***	-0.0041
	(0.008)	(0.032)	(0.003)	(0.030)	(0.015)	(0.036)
lftisq		-0.0002		-0.0000		-0.0004
		(0.000)		(0.000)		(0.000)
CAPB	-0.0324	-0.0324	0.0475	0.0475	-0.2196**	-0.2188**
	(0.051)	(0.051)	(0.050)	(0.051)	(0.095)	(0.096)
CAB	0.0182	0.0143	0.0262*	0.0262*	0.0347	0.0247
	(0.030)	(0.032)	(0.015)	(0.012)	(0.043)	(0.048)
logreer	-1.6287	-1.6831*	1.9848**	1.9839*	-3.6330**	-3.8834**
	(0.934)	(0.937)	(0.908)	(0.954)	(1.540)	(1.508)
GDP_Prct	-0.0559*	-0.0558*	-0.0601	-0.0601	-0.0842	-0.0848
	(0.027)	(0.027)	(0.037)	(0.037)	(0.066)	(0.065)
VIX	0.2874**	0.2845**	-0.2033*	-0.2243*	0.6373**	0.6359**
	(0.116)	(0.116)	(0.097)	(0.115)	(0.250)	(0.239)
CB_PR	0.8107***	0.8098***	0.6604***	0.6603***	0.7622***	0.7604***
	(0.057)	(0.057)	(0.154)	(0.154)	(0.089)	(0.088)
Inflation	0.1715***	0.1715***	0.0178	0.0178	0.1595**	0.1549**
	(0.048)	(0.048)	(0.022)	(0.022)	(0.061)	(0.062)
Public_Debt	0.0041	0.0040	-0.0075	-0.0075	-0.0006	-0.0027
	(0.006)	(0.006)	(0.007)	(0.007)	(0.017)	(0.019)
M3	0.0161	0.0161	0.0121	0.0121	-0.0168	-0.0163
	(0.017)	(0.017)	(0.036)	(0.036)	(0.025)	(0.026)
elec	0.0678	0.0623	0.0385	0.0385	0.1890	0.1556
	(0.117)	(0.120)	(0.065)	(0.065)	(0.186)	(0.194)
crisis2	-0.1281	-0.1527	-0.2467	-0.2470	0.2212	0.1732
	(0.196)	(0.187)	(0.270)	(0.242)	(0.431)	(0.451)
Observations	378	378	207	207	171	171
Number of groups	27	27	14	14	13	13
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.9333	0.9333	0.9409	0.9409	0.9130	0.9134

Note: Driscoll-Kraay standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 17: Regression Results with Discroll-Kraay standard errors for Calculated Spread (Germany)

Specification	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	SpreadGER	SpreadGER	SpreadGER	SpreadGER	SpreadGER	SpreadGER
Country group	All	All	AE	AE	EMDEs	EMDEs
lfti	-0.0366***	0.0117	-0.0288*	0.0082	-0.0940***	-0.0664
	(0.008)	(0.054)	(0.015)	(0.039)	(0.032)	(0.091)
lftisq		-0.0005		-0.0004		-0.0003
		(0.001)		(0.000)		(0.001)
CAPB	-0.1989***	-0.1990***	-0.0514	-0.0541	-0.2874***	-0.2857***
	(0.040)	(0.039)	(0.042)	(0.040)	(0.061)	(0.062)
CAB	0.0681	0.0595	0.0877*	0.0776	0.0931**	0.0891*
	(0.040)	(0.044)	(0.049)	(0.048)	(0.037)	(0.043)
logreer	4.8601***	4.5949***	2.8676***	2.6989**	12.5012***	12.2947***
	(1.464)	(1.503)	(0.825)	(0.926)	(2.955)	(3.042)
GDP_Prct	-0.1791**	-0.1768**	-0.0751	-0.0763	-0.1365	-0.1335
	(0.066)	(0.066)	(0.068)	(0.068)	(0.107)	(0.103)
VIX	-0.5515**	-0.5475**	-0.4468***	-0.4191***	-1.7521***	-1.7395***
	(0.225)	(0.226)	(0.109)	(0.121)	(0.526)	(0.525)
CB_PR	0.0434	0.0483	-0.0951	-0.1043	0.2127	0.2180
	(0.104)	(0.099)	(0.117)	(0.118)	(0.157)	(0.147)
Inflation	0.0753	0.0758	0.2918***	0.2930***	0.1099	0.1078
	(0.103)	(0.103)	(0.056)	(0.057)	(0.080)	(0.076)
Public_Debt	0.0274**	0.0269**	0.0195**	0.0199**	0.0652	0.0635
	(0.012)	(0.012)	(0.007)	(0.007)	(0.050)	(0.051)
M3	-0.0078	-0.0073	0.0241	0.0208	0.0359	0.0368
	(0.039)	(0.039)	(0.038)	(0.039)	(0.056)	(0.055)
elec	-0.1038	-0.1152	-0.0368	-0.0355	-0.2100	-0.2224
	(0.153)	(0.157)	(0.135)	(0.134)	(0.324)	(0.327)
crisis2	1.2005***	1.1341***	0.8865*	0.8362*	0.8364	0.8061
	(0.364)	(0.381)	(0.438)	(0.456)	(0.963)	(0.974)
Observations	397	397	208	208	189	189
Number of groups	27	27	14	14	13	13
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.7373	0.7381	0.6271	0.6290	0.7525	0.7528
lag	1	1	1	1	1	1

Note: Driscoll-Kraay standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 18: Regression Results with Discroll-Kraay standard errors for Calculated Spread (USA)

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	SpreadUSA	SpreadUSA	SpreadUSA	SpreadUSA	SpreadUSA	SpreadUSA
Country group	All	All	AE	AE	EMDEs	EMDEs
lfti	-0.0351***	-0.1302**	-0.0315*	-0.0665	-0.0763**	-0.2823**
	(0.012)	(0.052)	(0.015)	(0.054)	(0.031)	(0.105)
lftisq		0.0010**		0.0003		0.0022**
		(0.000)		(0.000)		(0.001)
CAPB	-0.2043***	-0.2041***	-0.0509	-0.0484	-0.2549**	-0.2677***
	(0.048)	(0.048)	(0.036)	(0.037)	(0.095)	(0.085)
CAB	-0.0329	-0.0158	0.0261	0.0357	-0.0183	0.0115
	(0.056)	(0.051)	(0.033)	(0.030)	(0.075)	(0.072)
logreer	0.1407	0.6637	1.2608	1.4207	2.9097	4.4496
	(1.605)	(1.521)	(0.922)	(0.891)	(3.043)	(3.240)
GDP_Prct	-0.1677**	-0.1722**	-0.1665**	-0.1653**	-0.0558	-0.0776
	(0.070)	(0.068)	(0.072)	(0.070)	(0.128)	(0.120)
VIX	0.0472	0.0394	-0.1701	-0.1656	-0.4397	-0.5338
	(0.262)	(0.253)	(0.111)	(0.116)	(0.525)	(0.512)
CB_PR	0.1584*	0.1488	0.1939***	0.2027***	0.2562*	0.2167
	(0.085)	(0.086)	(0.061)	(0.061)	(0.140)	(0.137)
Inflation	-0.1516	-0.1525	0.2224**	0.2212***	-0.1518	-0.1354
	(0.127)	(0.127)	(0.077)	(0.075)	(0.150)	(0.138)
Public_Debt	0.0180**	0.0188**	0.0110	0.0106	0.0488	0.0611
	(0.008)	(0.007)	(0.009)	(0.009)	(0.049)	(0.044)
M3	-0.0320	-0.0331	-0.0075	-0.0044	0.0033	-0.0036
	(0.028)	(0.027)	(0.018)	(0.019)	(0.039)	(0.038)
elec	-0.0231	-0.0007	0.0426	0.0414	-0.0792	0.0138
	(0.103)	(0.098)	(0.144)	(0.143)	(0.307)	(0.324)
crisis2	0.8266*	0.9576**	-0.1078	-0.0600	0.3372	0.5632
	(0.407)	(0.451)	(0.341)	(0.363)	(0.568)	(0.663)
Observations	397	397	208	208	189	189
Number of groups	27	27	14	14	13	13
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.7152	0.7194	0.8400	0.8415	0.5478	0.5716
lag	1	1	1	1	1	1

Note: Driscoll-Kraay standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 19: PCSE model, main variable: LT Int. Rate

Specification	(1)	(2)	(3)	(4)	(5)	(6)
Country group	All	AE	EMDEs	All	AE	EMDEs
L.LT_Intrst	0.8152***	0.6884***	0.8407***	0.8152***	0.6754***	0.8414***
	(0.035)	(0.035)	(0.021)	(0.035)	(0.035)	(0.021)
L.fti	-0.0053**	-0.0149***	0.0011	-0.0141	-0.0703***	0.0007
	(0.003)	(0.003)	(0.003)	(0.020)	(0.016)	(0.028)
L.ftisq				0.0001	0.0005***	0.0000
				(0.000)	(0.000)	(0.000)
CAPB	-0.0428***	-0.0011	-0.0638*	-0.0435***	0.0042	-0.0639*
	(0.013)	(0.013)	(0.033)	(0.014)	(0.012)	(0.033)
CAB	-0.0147	-0.0267**	-0.0136	-0.0136	-0.0224*	-0.0144
	(0.014)	(0.013)	(0.023)	(0.015)	(0.013)	(0.025)
logreer	0.0891	-0.8132***	0.5523**	0.0834	-0.4263	0.5347**
	(0.370)	(0.315)	(0.224)	(0.360)	(0.271)	(0.247)
GDP_Prct	0.0379**	0.0001	0.0685***	0.0380**	0.0020	0.0687***
	(0.018)	(0.019)	(0.021)	(0.018)	(0.019)	(0.021)
VIX	0.0295**	0.0107	0.0512***	0.0286**	0.0111	0.0512***
	(0.014)	(0.013)	(0.013)	(0.013)	(0.013)	(0.012)
CB_PR	0.0578*	0.1925***	0.0109	0.0592*	0.2099***	0.0094
	(0.031)	(0.043)	(0.030)	(0.030)	(0.043)	(0.030)
Inflation	0.1473***	0.1699***	0.1242***	0.1482***	0.1659***	0.1242***
	(0.030)	(0.029)	(0.031)	(0.030)	(0.028)	(0.030)
Public_Debt	0.0006	0.0016	0.0069	0.0008	0.0028	0.0069
	(0.001)	(0.002)	(0.005)	(0.001)	(0.002)	(0.005)
M3	-0.0093	-0.0336***	-0.0067	-0.0089	-0.0316***	-0.0064
	(0.010)	(0.011)	(0.007)	(0.009)	(0.011)	(0.007)
elec	0.1943***	0.1438**	0.2192*	0.1984***	0.1365***	0.2170*
	(0.067)	(0.056)	(0.124)	(0.066)	(0.052)	(0.123)
crisis2	-0.2601*	-0.0395	-0.4656***	-0.2542*	-0.0309	-0.4693***
	(0.148)	(0.149)	(0.172)	(0.149)	(0.152)	(0.168)
Observations	387	208	179	387	208	179
Number of country	27	14	13	27	14	13
R-squared	0.9216	0.8879	0.8719	0.9217	0.8783	0.8707

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 20: PCSE model, main variable: ST Int. Rate

Specification	(1)	(2)	(3)	(4)
Country group	All	AE	All	AE
L.ST_Intrst	0.2597***	0.2815***	0.2616***	0.2823***
	(0.021)	(0.037)	(0.021)	(0.037)
L.fti	-0.0052***	-0.0021	-0.0140	-0.0077
	(0.001)	(0.001)	(0.010)	(0.010)
L.ftisq		0.0001	0.0001	
		(0.000)	(0.000)	
CAPB	0.0090	0.0500***	0.0091	0.0499***
	(0.009)	(0.014)	(0.009)	(0.014)
CAB	-0.0070	-0.0272***	-0.0067	-0.0267***
	(0.007)	(0.006)	(0.007)	(0.006)
logreer	-0.7961***	0.0736	-0.8203***	0.0959
	(0.198)	(0.183)	(0.199)	(0.183)
GDP_Prct	0.0222**	0.0121	0.0225**	0.0122
	(0.011)	(0.011)	(0.011)	(0.011)
VIX	0.0091	0.0013	0.0087	0.0010
	(0.006)	(0.007)	(0.006)	(0.007)
CB_PR	0.6967***	0.7715***	0.6948***	0.7718***
	(0.026)	(0.040)	(0.027)	(0.040)
Inflation	0.0904***	0.0612***	0.0911***	0.0615***
	(0.017)	(0.018)	(0.017)	(0.018)
Public_Debt	-0.0011	0.0009	-0.0010	0.0010
	(0.001)	(0.001)	(0.001)	(0.001)
M3	0.0050	0.0163**	0.0052	0.0167**
	(0.004)	(0.008)	(0.004)	(0.007)
elec	0.0894**	0.0273	0.0911***	0.0273
	(0.035)	(0.040)	(0.035)	(0.039)
crisis2	-0.0849	-0.1277	-0.0829	-0.1249
	(0.088)	(0.080)	(0.091)	(0.082)
Observations	376	207	376	207
Number of country	27	14	27	14
R-squared	0.9315	0.9337	0.9304	0.9338

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 21: PCSE model, main variable: Spread GER

Specification	(1)	(2)	(3)	(4)	(5)	(6)
Country group	All	AE	EMDEs	All	AE	EMDEs
L.spreadGER	0.8605***	0.7403***	0.8230***	0.8585***	0.7322***	0.8190***
	(0.029)	(0.054)	(0.028)	(0.030)	(0.056)	(0.029)
L.fti	-0.0060	-0.0096***	-0.0019	0.0106	-0.0399	0.0527*
	(0.005)	(0.003)	(0.011)	(0.023)	(0.025)	(0.027)
L.ftisq			-0.0002	0.0003	-0.0006**	
			(0.000)	(0.000)	(0.000)	
CAPB	-0.0855***	-0.0107	-0.1759***	-0.0846***	-0.0078	-0.1792***
	(0.024)	(0.024)	(0.044)	(0.024)	(0.024)	(0.052)
CAB	-0.0366*	-0.0243*	-0.0468**	-0.0373*	-0.0251*	-0.0531**
	(0.019)	(0.015)	(0.024)	(0.019)	(0.014)	(0.022)
logreer	0.1614	-0.0841	1.2116	0.1564	0.0935	1.2942*
	(0.536)	(0.402)	(0.748)	(0.526)	(0.346)	(0.757)
GDP_Prct	0.0015	-0.0159	-0.0050	0.0014	-0.0154	-0.0061
	(0.030)	(0.020)	(0.062)	(0.030)	(0.020)	(0.061)
VIX	0.0031	-0.0088	0.0091	0.0037	-0.0090	0.0122
	(0.021)	(0.013)	(0.044)	(0.021)	(0.013)	(0.043)
CB_PR	-0.0100	-0.0810*	-0.0219	-0.0094	-0.0744*	-0.0168
	(0.036)	(0.044)	(0.060)	(0.036)	(0.044)	(0.062)
Inflation	0.0501	0.0961***	0.0358	0.0507	0.0937***	0.0358
	(0.038)	(0.029)	(0.060)	(0.038)	(0.029)	(0.062)
Public_Debt	-0.0038**	-0.0003	0.0014	-0.0038**	0.0005	0.0005
	(0.002)	(0.002)	(0.005)	(0.002)	(0.002)	(0.006)
M3	-0.0142	-0.0214*	-0.0152	-0.0144	-0.0202	-0.0148
	(0.017)	(0.013)	(0.023)	(0.017)	(0.013)	(0.024)
elec	0.0479	0.1131	-0.1179	0.0445	0.1130	-0.1343
	(0.088)	(0.074)	(0.193)	(0.088)	(0.074)	(0.191)
crisis2	0.1445	0.2994**	-0.0076	0.1429	0.2943**	-0.0172
	(0.224)	(0.135)	(0.485)	(0.224)	(0.140)	(0.469)
Observations	397	208	189	397	208	189
Number of country	27	14	13	27	14	13
R-squared	0.8676	0.6953	0.8410	0.8687	0.6915	0.8465

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 22: PCSE model, main variable: Spread USA

Specification	(1)	(2)	(3)	(4)	(5)	(6)
Country group	All	AE	EMDEs	All	AE	EMDEs
L.spreadUSA	0.8069***	0.6593***	0.8057***	0.8074***	0.6302***	0.8065***
	(0.028)	(0.037)	(0.038)	(0.028)	(0.038)	(0.037)
L.fti	-0.0065	-0.0204***	-0.0039	-0.0165	-0.1145***	0.0098
	(0.004)	(0.003)	(0.007)	(0.017)	(0.015)	(0.028)
L.ftisq			0.0001	0.0009***	-0.0001	
			(0.000)	(0.000)	(0.000)	
CAPB	-0.0425***	-0.0057	-0.0584**	-0.0429***	0.0028	-0.0587**
	(0.014)	(0.012)	(0.025)	(0.015)	(0.012)	(0.025)
CAB	-0.0634***	-0.0475***	-0.0726***	-0.0632***	-0.0409***	-0.0735***
	(0.015)	(0.013)	(0.024)	(0.015)	(0.011)	(0.024)
logreer	-0.2330	-0.9053**	0.1661	-0.2125	-0.1902	0.1883
	(0.412)	(0.375)	(0.426)	(0.406)	(0.300)	(0.422)
GDP_Prct	-0.0083	-0.0513***	0.0200	-0.0083	-0.0495***	0.0203
	(0.019)	(0.016)	(0.033)	(0.019)	(0.015)	(0.033)
VIX	0.0441***	0.0248**	0.0622***	0.0437***	0.0245**	0.0627***
	(0.014)	(0.011)	(0.023)	(0.014)	(0.011)	(0.023)
CB_PR	0.0571**	0.1079***	0.0392	0.0571**	0.1094***	0.0400
	(0.027)	(0.036)	(0.041)	(0.027)	(0.035)	(0.041)
Inflation	-0.0191	0.0477**	-0.0576*	-0.0195	0.0437**	-0.0570*
	(0.032)	(0.023)	(0.033)	(0.032)	(0.021)	(0.033)
Public_Debt	-0.0028**	0.0007	0.0037*	-0.0028**	0.0027	0.0033
	(0.001)	(0.002)	(0.002)	(0.001)	(0.002)	(0.003)
M3	-0.0028	-0.0114	-0.0122	-0.0026	-0.0065	-0.0121
	(0.010)	(0.010)	(0.014)	(0.010)	(0.009)	(0.014)
elec	0.1507**	0.1287***	0.1673	0.1542**	0.1078**	0.1605
	(0.067)	(0.049)	(0.168)	(0.066)	(0.044)	(0.170)
crisis2	0.0917	0.1816	0.0497	0.0890	0.1643	0.0566
	(0.172)	(0.141)	(0.258)	(0.173)	(0.138)	(0.253)
Constant	0.7786	4.6056**	-1.5526	0.9042	3.3174**	-1.9603
	(2.058)	(1.795)	(2.335)	(1.946)	(1.402)	(2.441)
Observations	397	208	189	397	208	189
Number of country	27	14	13	27	14	13
R-squared	0.8383	0.7817	0.7318	0.8380	0.7898	0.7321

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 23: Baseline regressions: alternative FTI measure

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable	LT_Intrst	LT_Intrst	LT_Intrst	LT_Intrst	ST_Intrst	ST_Intrst	ST_Intrst	ST_Intrst
Country group	All	All	AE	EMDEs	All	All	AE	EMDEs
L.fti_pca	-0.0224**	-0.0402*	-0.0318***	-0.0267	-0.0245**	-0.0029	-0.0033	-0.0577***
	(0.008)	(0.021)	(0.008)	(0.017)	(0.009)	(0.044)	(0.003)	(0.014)
L.ftipcasq		0.0002				-0.0002		
		(0.000)				(0.000)		
CAPB	-0.1238**	-0.1225***	-0.0563	-0.1599**	-0.0361	-0.0377	0.0472	-0.2097***
	(0.052)	(0.032)	(0.048)	(0.061)	(0.060)	(0.062)	(0.042)	(0.060)
CAB	-0.0144	-0.0100	0.0352	-0.0229	0.0235	0.0176	0.0275	0.0419
	(0.024)	(0.023)	(0.034)	(0.040)	(0.027)	(0.033)	(0.021)	(0.049)
logreer	-1.7944*	-1.6921**	1.6248	-2.2430	-1.5613*	-1.6559	1.9853**	-3.1607*
	(1.016)	(0.706)	(1.014)	(1.268)	(0.906)	(1.006)	(0.773)	(1.892)
GDP_Prct	-0.1811***	-0.1817***	-0.1614***	-0.1073*	-0.0535	-0.0535	-0.0580	-0.0785
	(0.040)	(0.030)	(0.053)	(0.054)	(0.071)	(0.070)	(0.037)	(0.074)
VIX	2.5486***	2.5916***	2.9586***	0.6692	1.1616	1.1002	-0.1556	2.2485
	(0.782)	(0.637)	(0.917)	(1.602)	(0.804)	(0.735)	(0.555)	(2.071)
CB_PR	0.0769	0.0775*	0.1992***	0.0695	0.8035***	0.7998***	0.6614***	0.7516***
	(0.077)	(0.044)	(0.054)	(0.102)	(0.086)	(0.090)	(0.110)	(0.097)
Inflation	0.0715*	0.0704*	0.2170***	0.0591	0.1722**	0.1734**	0.0191	0.1675
	(0.041)	(0.037)	(0.072)	(0.054)	(0.068)	(0.070)	(0.044)	(0.109)
Public_Debt	0.0172*	0.0168***	0.0075	0.0240	0.0018	0.0021	-0.0078	-0.0029
	(0.009)	(0.006)	(0.011)	(0.024)	(0.009)	(0.009)	(0.005)	(0.024)
M3	-0.0339**	-0.0338**	-0.0027	-0.0154	0.0141	0.0139	0.0121	-0.0167
	(0.014)	(0.013)	(0.016)	(0.023)	(0.019)	(0.019)	(0.030)	(0.022)
elec	0.0255	0.0333	0.0409	0.0109	0.0702	0.0598	0.0376	0.2208
	(0.088)	(0.105)	(0.084)	(0.138)	(0.105)	(0.103)	(0.070)	(0.244)
crisis2	-0.2076	-0.1749	-0.0024	-0.9694***	-0.0668	-0.1077	-0.2279	0.1480
	(0.260)	(0.223)	(0.263)	(0.247)	(0.351)	(0.371)	(0.236)	(0.349)
Observations	389	389	208	181	378	378	207	171
Number of country_num	27		14	13	27	27	14	13
R-squared	0.7117	0.9187	0.8657	0.6551	0.8197	0.8204	0.9411	0.9165

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 24: Baseline regressions: alternative FTI measure

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable	spreadGER	spreadGER	spreadGER	spreadGER	spreadUSA	spreadUSA	spreadUSA	spreadUSA
Country group	All	All	AE	EMDEs	All	All	AE	EMDEs
L.fti_pca	-0.0265	-0.0113	-0.0273**	-0.0875*	-0.0271**	-0.0883	-0.0318***	-0.0665**
	(0.021)	(0.065)	(0.012)	(0.047)	(0.011)	(0.068)	(0.006)	(0.033)
L.ftipcasq		-0.0002				0.0006		
		(0.001)				(0.001)		
CAPB	-0.2018*	-0.2029*	-0.0563	-0.2715*	-0.2074**	-0.2028**	-0.0563*	-0.2435**
	(0.107)	(0.108)	(0.056)	(0.148)	(0.093)	(0.093)	(0.034)	(0.116)
CAB	0.0652	0.0621	0.0949*	0.0952	-0.0344	-0.0220	0.0352	-0.0199
	(0.082)	(0.086)	(0.051)	(0.093)	(0.068)	(0.073)	(0.027)	(0.090)
logreer	5.1762	5.0654	3.2316*	13.2872***	0.4204	0.8633	1.6248*	3.5684
	(3.776)	(3.596)	(1.686)	(5.113)	(2.789)	(2.643)	(0.853)	(4.157)
GDP_Prct	-0.1844**	-0.1836**	-0.0727	-0.1263	-0.1719***	-0.1752***	-0.1614***	-0.0488
	(0.080)	(0.079)	(0.103)	(0.100)	(0.050)	(0.048)	(0.038)	(0.091)
VIX	-2.1355	-2.1775	-0.9711	-5.6302*	-0.9197	-0.7517	1.9782***	-4.3982
	(1.553)	(1.571)	(1.725)	(2.942)	(1.656)	(1.599)	(0.626)	(3.584)
CB_PR	0.0401	0.0410	-0.0912	0.2055	0.1547	0.1513	0.1992***	0.2508*
	(0.167)	(0.168)	(0.138)	(0.184)	(0.109)	(0.098)	(0.056)	(0.145)
Inflation	0.0767	0.0775	0.2846***	0.1295	-0.1499	-0.1530	0.2170***	-0.1370
	(0.118)	(0.116)	(0.102)	(0.112)	(0.111)	(0.115)	(0.052)	(0.096)
Public_Debt	0.0254	0.0256	0.0165	0.0594	0.0159	0.0152	0.0075	0.0443
	(0.022)	(0.022)	(0.013)	(0.055)	(0.017)	(0.018)	(0.007)	(0.049)
M3	-0.0053	-0.0052	0.0289	0.0404	-0.0301	-0.0305	-0.0027	0.0075
	(0.030)	(0.029)	(0.037)	(0.058)	(0.025)	(0.025)	(0.016)	(0.044)
elec	-0.1029	-0.1081	-0.0372	-0.1854	-0.0213	-0.0008	0.0409	-0.0702
	(0.164)	(0.164)	(0.095)	(0.334)	(0.146)	(0.160)	(0.113)	(0.305)
crisis2	1.2439	1.2176	0.9670	0.7718	0.8746	0.9798	-0.0024	0.3012
	(1.058)	(1.051)	(0.686)	(1.055)	(0.701)	(0.734)	(0.271)	(0.722)
Observations	397	397	208	189	397	397	208	189
Number of country_num	27	27	14	13	27	27	14	13
R-squared	0.3154	0.3159			0.3075	0.3163	0.8453	

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 25: Discroll-Kraay stand errors and alternative FTI measure main variable: Long-term In. Rate

Model	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	LT_Intrst	LT_Intrst	LT_Intrst	LT_Intrst	LT_Intrst	LT_Intrst
Country group	All	All	AE	AE	EMDEs	EMDEs
L.fti_pca	-0.0224*	-0.0402**	-0.0318**	-0.0479	-0.0267	-0.0677**
	(0.011)	(0.018)	(0.013)	(0.039)	(0.015)	(0.031)
L.ftipcasq		0.0002		0.0002		0.0004
		(0.000)		(0.000)		(0.000)
CAPB	-0.1238***	-0.1225***	-0.0563	-0.0541	-0.1599***	-0.1576***
	(0.028)	(0.028)	(0.033)	(0.034)	(0.053)	(0.053)
CAB	-0.0144	-0.0100	0.0352	0.0408	-0.0229	-0.0146
	(0.032)	(0.030)	(0.032)	(0.030)	(0.039)	(0.038)
logreer	-1.7944**	-1.6921**	1.6248*	1.6942*	-2.2430**	-1.9143*
	(0.699)	(0.698)	(0.879)	(0.899)	(0.924)	(1.064)
GDP_Prct	-0.1811***	-0.1817***	-0.1614**	-0.1615**	-0.1073**	-0.1092**
	(0.049)	(0.049)	(0.068)	(0.067)	(0.043)	(0.044)
VIX	0.4590***	0.4565***	-0.1016	-0.1006	0.5040***	0.4779**
	(0.121)	(0.119)	(0.103)	(0.112)	(0.170)	(0.183)
CB_PR	0.0769	0.0775	0.1992***	0.2078***	0.0695	0.0672
	(0.045)	(0.045)	(0.057)	(0.059)	(0.063)	(0.065)
Inflation	0.0715	0.0704	0.2170***	0.2148***	0.0591	0.0624
	(0.049)	(0.050)	(0.070)	(0.067)	(0.075)	(0.076)
Public_Debt	0.0172***	0.0168***	0.0075	0.0069	0.0240	0.0265
	(0.005)	(0.005)	(0.009)	(0.009)	(0.021)	(0.020)
M3	-0.0339*	-0.0338*	-0.0027	-0.0005	-0.0154	-0.0169
	(0.016)	(0.016)	(0.018)	(0.020)	(0.014)	(0.014)
elec	0.0255	0.0333	0.0409	0.0396	0.0109	0.0529
	(0.096)	(0.095)	(0.139)	(0.138)	(0.114)	(0.112)
crisis2	-0.2076	-0.1749	-0.0024	0.0282	-0.9694***	-0.9248***
	(0.240)	(0.243)	(0.357)	(0.390)	(0.265)	(0.239)
Observations	389	389	208	208	181	181
Number of groups	27	27	14	14	13	13
R-squared	0.9184	0.9187	0.8892	0.8896	0.8848	0.8874
lag	1	1	1	1	1	1

Note: Discroll-Kraay standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 26: Discroll-Kraay stand errors and alternative FTI measure, main variable: Short-term In. Rate

Model	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	ST_Intrst	ST_Intrst	ST_Intrst	ST_Intrst	ST_Intrst	ST_Intrst
Country group	All	All	AE	AE	EMDEs	EMDEs
L.fti_pca	-0.0245***	-0.0029	-0.0033	-0.0059	-0.0577***	-0.0108
	(0.008)	(0.021)	(0.003)	(0.020)	(0.012)	(0.023)
L.ftipcasq		-0.0002		0.0000		-0.0005*
		(0.000)		(0.000)		(0.000)
CAPB	-0.0361	-0.0377	0.0472	0.0475	-0.2097**	-0.2138**
	(0.050)	(0.051)	(0.050)	(0.051)	(0.089)	(0.091)
CAB	0.0235	0.0176	0.0275*	0.0284**	0.0419	0.0295
	(0.030)	(0.031)	(0.014)	(0.013)	(0.043)	(0.044)
logreer	-1.5613*	-1.6559*	1.9853**	1.9962**	-3.1607*	-3.5526**
	(0.877)	(0.889)	(0.884)	(0.909)	(1.666)	(1.603)
GDP_Prct	-0.0535**	-0.0535*	-0.0580	-0.0580	-0.0785	-0.0820
	(0.025)	(0.026)	(0.036)	(0.036)	(0.065)	(0.063)
VIX	0.2915**	0.2918**	-0.2013**	-0.2227*	0.5917**	0.6320**
	(0.108)	(0.108)	(0.093)	(0.111)	(0.272)	(0.259)
CB_PR	0.8035***	0.7998***	0.6614***	0.6628***	0.7516***	0.7435***
	(0.059)	(0.057)	(0.153)	(0.153)	(0.088)	(0.086)
Inflation	0.1722***	0.1734***	0.0191	0.0187	0.1675**	0.1599**
	(0.049)	(0.048)	(0.020)	(0.021)	(0.061)	(0.060)
Public_Debt	0.0018	0.0021	-0.0078	-0.0079	-0.0029	-0.0068
	(0.005)	(0.005)	(0.007)	(0.007)	(0.017)	(0.019)
M3	0.0141	0.0139	0.0121	0.0124	-0.0167	-0.0165
	(0.016)	(0.016)	(0.035)	(0.036)	(0.024)	(0.025)
elec	0.0702	0.0598	0.0376	0.0374	0.2208	0.1649
	(0.116)	(0.120)	(0.065)	(0.064)	(0.194)	(0.201)
crisis2	-0.0668	-0.1077	-0.2279	-0.2230	0.1480	0.0940
	(0.190)	(0.181)	(0.264)	(0.241)	(0.332)	(0.356)
Observations	378	378	207	207	171	171
Number of groups	27	27	14	14	13	13
R-squared	0.9347	0.9350	0.9411	0.9411	0.9165	0.9179
lag	1	1	1	1	1	1

Note: Discroll-Kraay standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 27: Discroll-Kraay stand errors and alternative FTI measure, main variable: SpreadGER

Model	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	spreadGER	spreadGER	spreadGER	spreadGER	spreadGER	spreadGER
Country group	All	All	AE	AE	EMDEs	EMDEs
L.fti_pca	-0.0265***	-0.0113	-0.0273**	0.0015	-0.0875**	-0.0780
	(0.007)	(0.038)	(0.013)	(0.032)	(0.031)	(0.075)
L.ftipcasq		-0.0002		-0.0003		-0.0001
		(0.000)		(0.000)		(0.001)
CAPB	-0.2018***	-0.2029***	-0.0563	-0.0601	-0.2715***	-0.2718***
	(0.042)	(0.042)	(0.044)	(0.042)	(0.059)	(0.059)
CAB	0.0652	0.0621	0.0949*	0.0850*	0.0952**	0.0937*
	(0.038)	(0.040)	(0.048)	(0.047)	(0.041)	(0.046)
logreer	5.1762***	5.0654***	3.2316***	3.1080***	13.2872***	13.1923***
	(1.374)	(1.411)	(0.735)	(0.801)	(2.962)	(3.116)
GDP_Prct	-0.1844**	-0.1836**	-0.0727	-0.0725	-0.1263	-0.1253
	(0.067)	(0.068)	(0.066)	(0.067)	(0.111)	(0.109)
VIX	-0.6051***	-0.6001**	-0.4934***	-0.4693***	-1.8616***	-1.8528***
	(0.206)	(0.207)	(0.096)	(0.102)	(0.516)	(0.526)
CB_PR	0.0401	0.0410	-0.0912	-0.1064	0.2055	0.2071
	(0.103)	(0.102)	(0.119)	(0.125)	(0.155)	(0.150)
Inflation	0.0767	0.0775	0.2846***	0.2884***	0.1295*	0.1284*
	(0.100)	(0.101)	(0.052)	(0.052)	(0.069)	(0.066)
Public_Debt	0.0254**	0.0256**	0.0165**	0.0177**	0.0594	0.0586
	(0.012)	(0.012)	(0.007)	(0.006)	(0.049)	(0.050)
M3	-0.0053	-0.0052	0.0289	0.0249	0.0404	0.0408
	(0.039)	(0.039)	(0.040)	(0.042)	(0.055)	(0.055)
elec	-0.1029	-0.1081	-0.0372	-0.0349	-0.1854	-0.1927
	(0.153)	(0.156)	(0.130)	(0.129)	(0.298)	(0.303)
crisis2	1.2439***	1.2176***	0.9670**	0.9125*	0.7718	0.7619
	(0.375)	(0.395)	(0.434)	(0.453)	(1.034)	(1.038)
Observations	397	397	208	208	189	189
Number of groups	27	27	14	14	13	13
R-squared	0.7345	0.7347	0.6285	0.6306	0.7513	0.7514
lag	1	1	1	1	1	1

Note: Discroll-Kraay standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 28: Discroll-Kraay stand errors and alternative FTI measure, main variable: SpreadUSA

Model	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	spreadUSA	spreadUSA	spreadUSA	spreadUSA	spreadUSA	spreadUSA
Country group	All	All	AE	AE	EMDEs	EMDEs
L.fti_pca	-0.0271***	-0.0883**	-0.0318**	-0.0479	-0.0665***	-0.1823**
	(0.008)	(0.031)	(0.013)	(0.039)	(0.022)	(0.067)
L.ftipcasq		0.0006**		0.0002		0.0013**
		(0.000)		(0.000)		(0.001)
CAPB	-0.2074***	-0.2028***	-0.0563	-0.0541	-0.2435**	-0.2399***
	(0.048)	(0.049)	(0.033)	(0.034)	(0.090)	(0.077)
CAB	-0.0344	-0.0220	0.0352	0.0408	-0.0199	-0.0012
	(0.057)	(0.053)	(0.032)	(0.030)	(0.078)	(0.079)
logreer	0.4204	0.8633	1.6248*	1.6942*	3.5684	4.7217
	(1.544)	(1.493)	(0.879)	(0.899)	(3.198)	(3.544)
GDP_Prct	-0.1719**	-0.1752**	-0.1614**	-0.1615**	-0.0488	-0.0604
	(0.072)	(0.069)	(0.068)	(0.067)	(0.132)	(0.124)
VIX	0.0020	-0.0181	-0.2139*	-0.2129*	-0.5382	-0.6451
	(0.253)	(0.247)	(0.103)	(0.112)	(0.557)	(0.576)
CB_PR	0.1547*	0.1513*	0.1992***	0.2078***	0.2508*	0.2308
	(0.085)	(0.086)	(0.057)	(0.059)	(0.137)	(0.135)
Inflation	-0.1499	-0.1530	0.2170***	0.2148***	-0.1370	-0.1233
	(0.126)	(0.128)	(0.070)	(0.067)	(0.158)	(0.152)
Public_Debt	0.0159*	0.0152*	0.0075	0.0069	0.0443	0.0550
	(0.008)	(0.007)	(0.009)	(0.009)	(0.051)	(0.048)
M3	-0.0301	-0.0305	-0.0027	-0.0005	0.0075	0.0025
	(0.028)	(0.027)	(0.018)	(0.020)	(0.039)	(0.038)
elec	-0.0213	-0.0008	0.0409	0.0396	-0.0702	0.0187
	(0.103)	(0.101)	(0.139)	(0.138)	(0.287)	(0.302)
crisis2	0.8746**	0.9798**	-0.0024	0.0282	0.3012	0.4210
	(0.401)	(0.426)	(0.357)	(0.390)	(0.541)	(0.554)
Observations	397	397	208	208	189	189
Number of groups	27	27	14	14	13	13
lag	1	1	1	1	1	1
R-squared	0.7126	0.7163	0.8453	0.8459	0.5434	0.5607

Note: Discroll-Kraay standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 29: 2SLS regressions and alternative FTI measure

Model	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	LT_Intrst	LT_Intrst	LT_Intrst	ST_Intrst	ST_Intrst	ST_Intrst
Country group	All	AE	EMDE	All	AE	EMDEs
L.fti_pca	-0.0470***	-0.0933***	-0.0801***	-0.0287***	-0.0134***	-0.0606***
	(0.008)	(0.010)	(0.014)	(0.009)	(0.004)	(0.019)
CAPB	-0.1238***	-0.0326	-0.1715***	-0.0139	0.0528	-0.2048***
	(0.035)	(0.031)	(0.043)	(0.038)	(0.042)	(0.057)
CAB	-0.0124	0.0669	0.0618	-0.0107	0.0220	-0.0453
	(0.026)	(0.042)	(0.038)	(0.033)	(0.025)	(0.046)
logreer	-2.4452***	0.6073	-2.7122***	-1.8599*	0.5957	-5.6870***
	(0.768)	(1.327)	(1.042)	(0.990)	(0.565)	(2.027)
GDP_Prct	-0.0556***	-0.0466**	0.0031	-0.0323*	-0.0166	-0.0540**
	(0.018)	(0.019)	(0.024)	(0.017)	(0.013)	(0.027)
CB_PR	0.2617***	0.2948***	0.2060***	0.8255***	0.8813***	0.8416***
	(0.037)	(0.069)	(0.049)	(0.055)	(0.068)	(0.085)
Inflation	0.1152***	0.2261***	0.1427***	0.0666	0.0729**	-0.0306
	(0.028)	(0.039)	(0.043)	(0.042)	(0.029)	(0.091)
Public_Debt	-0.0110*	-0.0161**	0.0707***	-0.0062	-0.0069*	-0.0208
	(0.006)	(0.007)	(0.019)	(0.005)	(0.004)	(0.021)
M3	-0.0562***	-0.0684***	-0.0031	0.0081	0.0015	-0.0355**
	(0.013)	(0.019)	(0.018)	(0.012)	(0.018)	(0.017)
elec	0.0243	-0.0343	0.1595	0.0340	0.0400	0.0248
	(0.118)	(0.145)	(0.200)	(0.119)	(0.083)	(0.233)
crisis2	-0.3265*	0.1974	-1.1953***	-0.0378	0.0849	-0.1068
	(0.180)	(0.170)	(0.246)	(0.140)	(0.129)	(0.283)
Observations	371	208	162	362	207	154
Number of groups	25	14	11	25	14	11
R-squared	0.5971	0.7165	0.4562	0.7908	0.8982	0.7953
Hansen Statistic (p-value)	0.4549	0.3677	0.1314	0.7947	0.0002	
Kleibergen-Paap Statistic	89.6411	43.4100	34.0923	43.1609	30.0589	

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 30: 2SLS regressions and alternative FTI measure

Model	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	spreadGER	spreadGER	spreadGER	spreadUSA	spreadUSA	spreadUSA
Country group	All	AE	EMDE	All	AE	EMDEs
L.fti_pca	0.0213*	-0.0212*	0.0583**	-0.0427***	-0.0840***	-0.0571***
	(0.012)	(0.012)	(0.023)	(0.008)	(0.010)	(0.014)
CAPB	-0.1021**	-0.0248	-0.3567***	-0.1294***	-0.0551*	-0.2134***
	(0.046)	(0.052)	(0.079)	(0.034)	(0.032)	(0.041)
CAB	-0.0063	0.1176**	-0.0899*	-0.0170	0.0482	0.0315
	(0.036)	(0.049)	(0.052)	(0.026)	(0.037)	(0.037)
logreer	1.1049	4.6110***	1.9909	-2.1203***	1.9142	-3.2403***
	(1.190)	(0.928)	(2.268)	(0.716)	(1.279)	(1.083)
GDP_Prct	-0.0836***	-0.0552*	-0.1175***	-0.0934***	-0.0850***	-0.0579**
	(0.032)	(0.029)	(0.044)	(0.017)	(0.019)	(0.023)
CB_PR	0.0678	-0.2525***	0.1891*	0.0529	-0.0161	0.0164
	(0.072)	(0.071)	(0.109)	(0.037)	(0.068)	(0.051)
Inflation	0.0803*	0.1788***	0.0133	0.0821***	0.1619***	0.1158***
	(0.049)	(0.047)	(0.087)	(0.030)	(0.040)	(0.042)
Public_Debt	0.0203**	0.0070	-0.0244	0.0078	0.0023	0.0429**
	(0.009)	(0.007)	(0.031)	(0.006)	(0.007)	(0.021)
M3	-0.0424**	-0.0250	-0.0481*	-0.0607***	-0.0534***	-0.0306*
	(0.021)	(0.021)	(0.028)	(0.012)	(0.018)	(0.018)
elec	-0.0728	-0.0818	-0.4090	0.0150	-0.0031	0.0006
	(0.156)	(0.150)	(0.299)	(0.113)	(0.133)	(0.193)
crisis2	-0.1187	0.0604	0.1860	0.1954	0.5491***	-0.3764
	(0.283)	(0.243)	(0.578)	(0.160)	(0.180)	(0.243)
Observations	371	208	162	371	208	162
Number of country	25	14	11	25	14	11
R-squared	0.1481	0.2657	0.2857	0.4622	0.5895	0.3437
Hansen Statistic (p-value)	0.0003	0.2014	0.1092	0.4851	0.1173	0.0662
Kleibergen-Paap Statistic	89.6411	43.4100	34.0923	89.6411	43.4100	34.0923

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 31: GMM regressions and alternative FTI measure

Model	(1)	(2)	(3)	(4)
Dependent variable	LT Int. Rate	ST Int. Rate	Spread GER	Spread USA
Country group	All	All	All	All
L.LT_Intrst	0.4263***			
	(0.127)			
L.ST_Intrst		0.3027		
		(0.201)		
L.calculatedspreadGER			0.0665	
			(0.232)	
L.calculatedspreadUSA				0.4283***
				(0.110)
L.fti_pca	-0.0364**	-0.0105	-0.0293	-0.0342**
	(0.017)	(0.009)	(0.033)	(0.017)
CAPB	-0.0785	-0.0553	0.0129	0.0665
	(0.168)	(0.220)	(0.595)	(0.179)
CAB	-0.1052	0.0451	-0.1146	-0.1467
	(0.119)	(0.127)	(0.534)	(0.184)
logreer	-0.7537	-4.0850	35.6628*	12.0741**
	(4.634)	(8.085)	(19.304)	(5.725)
GDP_Prct	0.0488	-0.0036	-0.0669	0.0004
	(0.050)	(0.072)	(0.149)	(0.064)
VIX	0.0391	-0.0562	-0.0596	0.0562
	(0.054)	(0.090)	(0.189)	(0.073)
CB_PR	0.4823***	0.8657***	-0.1462	0.2587
	(0.172)	(0.266)	(0.405)	(0.188)
Inflation	0.0334	0.0821	0.4079*	0.0686
	(0.113)	(0.175)	(0.220)	(0.130)
Public_Debt	0.0222	0.0197	0.0306	0.0249
	(0.017)	(0.015)	(0.076)	(0.024)
M3	-0.0313	0.0762	-0.0721	-0.0435
	(0.033)	(0.068)	(0.097)	(0.053)
elec	2.5151***	2.5462*	2.3909	2.5663*
	(0.879)	(1.386)	(3.434)	(1.392)
crisis2	-0.0949	-0.4313	2.9188	1.7113**
	(0.569)	(0.908)	(2.483)	(0.710)
Observations	371	360	371	371
Number of country	25	25	25	25
Hansen Statistic (p-value)	0.384	0.756	0.9311	0.3605
AR(1) p-value	0.0250	0.0863	0.5027	0.0877
AR(2) p-value	0.737	0.506	0.835	0.978

Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 32: PCSE regression results, alternative FTI measure

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Dependent variable	LTI	LTI	LTI	LTI	LTI	LTI	STI	STI	STI	STI
Country group	All	AE	EMDEs	All	AE	EMDEs	All	AE	All	AE
L.LT_Intrst	0.8194***	0.6903***	0.8440***	0.8194***	0.6756***	0.8454***				
	(0.035)	(0.036)	(0.021)	(0.035)	(0.035)	(0.021)				
L.ST_Intrst							0.2590***	0.2832***	0.2608***	0.2845***
							(0.021)	(0.037)	(0.022)	(0.037)
L.fti_pca	-0.0032	-0.0126***	0.0027	-0.0041	-0.0500***	0.0108	-0.0045***	-0.0016	-0.0096	-0.0075
	(0.002)	(0.002)	(0.003)	(0.014)	(0.012)	(0.019)	(0.001)	(0.001)	(0.008)	(0.007)
L.ftipcasq				0.0000	0.0004***	-0.0001			0.0000	0.0001
				(0.000)	(0.000)	(0.000)		(0.000)	(0.000)	
CAPB	-0.0429***	-0.0032	-0.0644**	-0.0430***	0.0018	-0.0645**	0.0082	0.0496***	0.0083	0.0494***
	(0.013)	(0.013)	(0.032)	(0.014)	(0.012)	(0.033)	(0.009)	(0.014)	(0.010)	(0.013)
CAB	-0.0160	-0.0263**	-0.0145	-0.0159	-0.0239*	-0.0172	-0.0069	-0.0275***	-0.0067	-0.0270***
	(0.014)	(0.013)	(0.023)	(0.015)	(0.013)	(0.024)	(0.007)	(0.006)	(0.007)	(0.006)
logreer	0.1461	-0.7705**	0.5875***	0.1442	-0.5393**	0.5927**	-0.7836***	0.0765	-0.8047***	0.1109
	(0.374)	(0.304)	(0.222)	(0.366)	(0.272)	(0.243)	(0.200)	(0.189)	(0.201)	(0.187)
GDP_Prct	0.0377**	0.0001	0.0687***	0.0377**	0.0020	0.0687***	0.0221**	0.0122	0.0224**	0.0121
	(0.018)	(0.019)	(0.022)	(0.018)	(0.019)	(0.021)	(0.011)	(0.011)	(0.011)	(0.011)
VIX	0.0302**	0.0110	0.0520***	0.0301**	0.0115	0.0526***	0.0092	0.0012	0.0089	0.0007
	(0.014)	(0.013)	(0.013)	(0.013)	(0.013)	(0.012)	(0.006)	(0.007)	(0.006)	(0.007)
CB_PR	0.0559*	0.1963***	0.0099	0.0561*	0.2189***	0.0070	0.6977***	0.7713***	0.6963***	0.7720***
	(0.031)	(0.043)	(0.031)	(0.030)	(0.044)	(0.030)	(0.026)	(0.040)	(0.027)	(0.040)
Inflation	0.1468***	0.1699***	0.1232***	0.1468***	0.1638***	0.1233***	0.0905***	0.0611***	0.0906***	0.0612***
	(0.030)	(0.029)	(0.030)	(0.030)	(0.028)	(0.030)	(0.017)	(0.018)	(0.017)	(0.018)
Public_Debt	0.0005	0.0011	0.0065	0.0005	0.0024	0.0061	-0.0012*	0.0008	-0.0012*	0.0010
	(0.001)	(0.002)	(0.005)	(0.001)	(0.002)	(0.004)	(0.001)	(0.001)	(0.001)	(0.001)
M3	-0.0093	-0.0331***	-0.0065	-0.0092	-0.0310***	-0.0059	0.0047	0.0161**	0.0048	0.0166**
	(0.009)	(0.011)	(0.007)	(0.009)	(0.011)	(0.007)	(0.004)	(0.008)	(0.004)	(0.007)
elec	0.1922***	0.1478***	0.2092*	0.1927***	0.1389***	0.2009	0.0901**	0.0280	0.0919***	0.0276
	(0.067)	(0.056)	(0.123)	(0.067)	(0.052)	(0.123)	(0.035)	(0.039)	(0.035)	(0.039)
crisis2	-0.2663*	-0.0294	-0.4779***	-0.2653*	-0.0147	-0.4861***	-0.0769	-0.1250	-0.0735	-0.1176
	(0.148)	(0.150)	(0.179)	(0.149)	(0.157)	(0.170)	(0.089)	(0.081)	(0.093)	(0.085)
Observations	397	208	189	397	208	189	397	208	397	208
Number of country_num	27	14	13	27	14	13	27	14	27	14
R-squared	0.9213	0.8851	0.8722	0.9213	0.8772	0.8716	0.9313	0.9336	0.9299	0.9339

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 33: PCSE regression results, alternative FTI measure

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Dependent variable	SpreadGER	SpreadGER	SpreadGER	SpreadGER	SpreadGER	SpreadGER	SpreadUSA	SpreadUSA	SpreadUSA	SpreadUSA	SpreadUSA	SpreadUSA
Country group	All	AE	EMDEs	All	AE	EMDEs	All	AE	EMDEs	All	AE	EMDEs
L.calculatedspreadGER	0.8601***	0.7415***	0.8223***	0.8582***	0.7338***	0.8209***						
	(0.029)	(0.054)	(0.028)	(0.029)	(0.055)	(0.027)						
L.calculatedspreadUSA						0.8072***	0.6570***	0.8061***	0.8071***	0.6289***	0.8089***	
							(0.028)	(0.037)	(0.038)	(0.028)	(0.037)	(0.035)
L.fti_pca	-0.0041	-0.0076***	-0.0001	0.0103	-0.0346*	0.0485**	-0.0056	-0.0179***	-0.0036	-0.0124	-0.0918***	0.0166
	(0.005)	(0.003)	(0.011)	(0.016)	(0.019)	(0.019)	(0.004)	(0.003)	(0.006)	(0.013)	(0.011)	(0.021)
L.ftipcasq			-0.0001	0.0003	-0.0005***			0.0001	0.0007***	-0.0002		
			(0.000)	(0.000)	(0.000)			(0.000)	(0.000)	(0.000)		
CAPB	-0.0864***	-0.0119	-0.1769***	-0.0858***	-0.0087	-0.1819***	-0.0434***	-0.0066	-0.0585**	-0.0435***	0.0017	-0.0602**
	(0.024)	(0.024)	(0.045)	(0.024)	(0.025)	(0.054)	(0.014)	(0.012)	(0.025)	(0.015)	(0.012)	(0.026)
CAB	-0.0377*	-0.0254*	-0.0475*	-0.0383**	-0.0272**	-0.0529**	-0.0627***	-0.0484***	-0.0720***	-0.0625***	-0.0443***	-0.0739***
	(0.020)	(0.014)	(0.024)	(0.020)	(0.014)	(0.022)	(0.015)	(0.013)	(0.024)	(0.015)	(0.011)	(0.024)
logreer	0.2373	-0.0705	1.2990*	0.2285	0.0896	1.4090*	-0.2114	-0.9188**	0.1820	-0.1925	-0.2369	0.2281
	(0.537)	(0.403)	(0.723)	(0.525)	(0.353)	(0.724)	(0.408)	(0.363)	(0.397)	(0.404)	(0.277)	(0.378)
GDP_Prct	0.0013	-0.0160	-0.0052	0.0010	-0.0150	-0.0067	-0.0087	-0.0518***	0.0199	-0.0088	-0.0491***	0.0207
	(0.030)	(0.020)	(0.063)	(0.030)	(0.020)	(0.061)	(0.019)	(0.015)	(0.033)	(0.019)	(0.015)	(0.032)
VIX	0.0037	-0.0084	0.0102	0.0045	-0.0090	0.0139	0.0442***	0.0246**	0.0622***	0.0437***	0.0247**	0.0633***
	(0.021)	(0.013)	(0.045)	(0.020)	(0.013)	(0.042)	(0.014)	(0.011)	(0.023)	(0.014)	(0.010)	(0.022)
CB_PR	-0.0092	-0.0768*	-0.0221	-0.0092	-0.0664	-0.0179	0.0571**	0.1121***	0.0387	0.0574**	0.1238***	0.0398
	(0.036)	(0.044)	(0.060)	(0.036)	(0.044)	(0.060)	(0.027)	(0.035)	(0.040)	(0.027)	(0.034)	(0.040)
Inflation	0.0492	0.0944***	0.0354	0.0499	0.0907***	0.0368	-0.0181	0.0487**	-0.0566*	-0.0186	0.0396*	-0.0550*
	(0.037)	(0.029)	(0.060)	(0.037)	(0.029)	(0.062)	(0.032)	(0.022)	(0.034)	(0.032)	(0.021)	(0.032)
Public_Debt	-0.0040**	-0.0007	0.0012	-0.0041**	0.0003	-0.0007	-0.0030**	0.0001	0.0038*	-0.0029**	0.0023	0.0029
	(0.002)	(0.002)	(0.005)	(0.002)	(0.002)	(0.006)	(0.001)	(0.002)	(0.002)	(0.001)	(0.002)	(0.003)
M3	-0.0142	-0.0214*	-0.0146	-0.0143	-0.0197	-0.0131	-0.0027	-0.0105	-0.0121	-0.0024	-0.0044	-0.0116
	(0.017)	(0.013)	(0.024)	(0.017)	(0.013)	(0.024)	(0.010)	(0.010)	(0.014)	(0.010)	(0.009)	(0.013)
elec	0.0465	0.1174	-0.1231	0.0419	0.1164	-0.1471	0.1519**	0.1320***	0.1695	0.1555**	0.1055**	0.1532
	(0.089)	(0.074)	(0.194)	(0.088)	(0.075)	(0.186)	(0.067)	(0.049)	(0.167) (0.067)	(0.044)	(0.168)	
crisis2	0.1391	0.3046**	-0.0193	0.1333	0.3108**	-0.0216	0.0935	0.2043 0.0506	0.0917	0.1961	0.0644	
	(0.226)	(0.136)	(0.491)	(0.226)	(0.145)	(0.465)	(0.173)	(0.139)	(0.258)	(0.173) (0.134)	(0.247)	
Observations	397	208	189	397	208	189	397	208	189	397	208	189
Number of country	27	14	13	27	14	13	27	14	13	27	14	13
R-squared	0.8667	0.6930	0.8401	0.8683	0.6896	0.8484	0.8381	0.7802	0.7319	0.8377	0.7940	0.7338

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 34: Discroll-Kraay Effects and sub-FTI indices measures

Model	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	LT_Intrst	LT_Intrst	LT_Intrst	ST_Intrst	ST_Intrst	ST_Intrst
Country group	All	AE	EMDEs	All	AE	EMDEs
L.fti_1	-0.0005	-0.0014	0.0193**	0.0217	-0.0057	0.0593*
	(0.007)	(0.007)	(0.009)	(0.013)	(0.007)	(0.029)
L.fti_2	-0.0127**	0.0015	-0.0348***	-0.0252	0.0050	-0.0553**
	(0.005)	(0.008)	(0.010)	(0.015)	(0.007)	(0.024)
L.fti_3	-0.0108	-0.0105	0.0121	0.0129	0.0086	0.0054
	(0.009)	(0.009)	(0.010)	(0.011)	(0.007)	(0.018)
L.fti_4	-0.0036	-0.0092**	-0.0129**	-0.0080*	-0.0018	-0.0111**
	(0.003)	(0.003)	(0.006)	(0.004)	(0.002)	(0.005)
L.fti_5	0.0002	-0.0438**	0.0062	-0.0229***	-0.0055**	-0.0383***
	(0.004)	(0.017)	(0.009)	(0.004)	(0.003)	(0.008)
CAPB	-0.1195***	-0.0388	-0.1379***	-0.0469	0.0455	-0.2285**
	(0.028)	(0.039)	(0.042)	(0.057)	(0.050)	(0.091)
CAB	-0.0214	0.0091	-0.0376	0.0182	0.0342*	0.0584
	(0.032)	(0.039)	(0.034)	(0.025)	(0.016)	(0.039)
logreer	-1.9938**	1.3287	-1.5136	-1.6776*	2.2599**	-2.2328
	(0.794)	(0.966)	(1.186)	(0.814)	(0.867)	(1.606)
GDP_Prct	-0.1806***	-0.1477**	-0.0882*	-0.0762***	-0.0495*	-0.0707
	(0.049)	(0.056)	(0.045)	(0.022)	(0.027)	(0.062)
VIX	0.4829***	0.0298	0.3513	0.3718***	-0.2649**	0.4706
	(0.135)	(0.135)	(0.206)	(0.109)	(0.111)	(0.283)
CB_PR	0.0817	0.2122***	0.0513	0.7535***	0.6691***	0.6618***
	(0.048)	(0.051)	(0.058)	(0.063)	(0.160)	(0.091)
Inflation	0.0653	0.1805***	0.0775	0.1479**	0.0253	0.2120**
	(0.049)	(0.048)	(0.080)	(0.055)	(0.023)	(0.086)
Public_Debt	0.0187***	-0.0028	0.0339	-0.0073	-0.0102	0.0088
	(0.005)	(0.010)	(0.022)	(0.006)	(0.007)	(0.021)
M3	-0.0343*	0.0077	-0.0126	0.0062	0.0171	-0.0086
	(0.017)	(0.021)	(0.013)	(0.014)	(0.034)	(0.023)
elec	0.0266	0.0223	0.0239	0.0834	0.0356	0.1702
	(0.099)	(0.131)	(0.115)	(0.110)	(0.062)	(0.216)
crisis2	-0.2626	0.2983	-1.0000***	-0.1553	-0.0920	-0.2002
	(0.213)	(0.458)	(0.322)	(0.161)	(0.198)	(0.313)
Observations	389	208	181	378	207	171
Number of groups	27	14	13	27	14	13
R-squared	0.9196	0.9053	0.8930	0.9408	0.9432	0.9292

Note: Discroll-Kraay standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 35: Discroll-Kraay Effects and sub-FTI indices measures

Model	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	Spread GER	Spread GER	Spread GER	Spread USA	Spread USA	Spread USA
Country group	All	AE	EMDEs	All	AE	EMDEs
L.fti_1	0.0235**	0.0263**	0.0221	0.0105	-0.0014	0.0389
	(0.011)	(0.010)	(0.028)	(0.011)	(0.007)	(0.026)
L.fti_2	-0.0595***	-0.0167**	-0.0943***	-0.0493***	0.0015	-0.1142***
	(0.013)	(0.007)	(0.018)	(0.014)	(0.008)	(0.031)
L.fti_3	-0.0288	-0.0334***	-0.0082	0.0059	-0.0105	0.0491*
	(0.023)	(0.011)	(0.028)	(0.015)	(0.009)	(0.024)
L.fti_4	0.0073	-0.0103*	-0.0076	0.0001	-0.0092**	-0.0133
	(0.006)	(0.006)	(0.010)	(0.006)	(0.003)	(0.015)
L.fti_5	0.0214**	-0.0499**	0.0253	0.0268**	-0.0438**	0.0450***
	(0.008)	(0.018)	(0.018)	(0.011)	(0.017)	(0.012)
CAPB	-0.1629***	-0.0294	-0.1992***	-0.1833***	-0.0388	-0.1220
	(0.039)	(0.036)	(0.055)	(0.048)	(0.039)	(0.091)
CAB	0.0285	0.0376	0.0531	-0.0600	0.0091	-0.0733
	(0.035)	(0.052)	(0.046)	(0.060)	(0.039)	(0.075)
logreer	4.2939**	2.0878*	11.8774***	0.4373	1.3287	3.6994
	(1.479)	(1.008)	(3.390)	(1.466)	(0.966)	(3.282)
GDP_Prct	-0.1704**	-0.0819	-0.1055	-0.1513**	-0.1477**	-0.0019
	(0.062)	(0.066)	(0.100)	(0.066)	(0.056)	(0.095)
VIX	-0.5207**	-0.1659	-1.7663***	-0.0670	-0.0825	-0.7483
	(0.208)	(0.153)	(0.570)	(0.238)	(0.135)	(0.557)
CB_PR	0.0417	-0.0873	0.1297	0.1466	0.2122***	0.1238
	(0.074)	(0.079)	(0.113)	(0.088)	(0.051)	(0.103)
Inflation	0.0585	0.1979***	0.1475*	-0.1505	0.1805***	-0.0679
	(0.102)	(0.053)	(0.079)	(0.126)	(0.048)	(0.153)
Public_Debt	0.0409***	0.0022	0.0914*	0.0271**	-0.0028	0.0942*
	(0.009)	(0.008)	(0.047)	(0.012)	(0.010)	(0.048)
M3	-0.0067	0.0335	0.0383	-0.0283	0.0077	0.0122
	(0.032)	(0.033)	(0.054)	(0.025)	(0.021)	(0.037)
elec	-0.1018	-0.0619	-0.1780	-0.0121	0.0223	-0.0021
	(0.149)	(0.146)	(0.249)	(0.106)	(0.131)	(0.237)
crisis2	0.7739*	1.0063*	0.7465	0.6269*	0.2983	0.2220
	(0.408)	(0.516)	(1.043)	(0.310)	(0.458)	(0.394)
Observations	397	208	189	397	208	189
Number of groups	27	14	13	27	14	13
R-squared	0.7671	0.6995	0.7861	0.7370	0.8677	0.6453

Note: Discroll-Kraay standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 36: Panel Corrected Standard Errors (PCSE) Model and sub-FTI measures

Model	(1)	(2)	(3)	(4)	(5)
Dependent variable	LT Int. Rate	LT Int. Rate	LT Int. Rate	ST Int. Rate	ST Int. Rate
Country group	All	AE	EMDEs	All	AE
L.LT_Intrst	0.8152***	0.6969***	0.8116***		
	(0.033)	(0.036)	(0.016)		
L.ST_Intrst				0.2572***	0.2875***
				(0.020)	(0.038)
L.fti_1	-0.0031	-0.0036	0.0093**	0.0052***	0.0001
	(0.002)	(0.002)	(0.004)	(0.001)	(0.002)
L.fti_2	-0.0040*	-0.0055***	-0.0156***	-0.0097***	-0.0019
	(0.002)	(0.002)	(0.003)	(0.001)	(0.002)
L.fti_3	-0.0023	0.0006	0.0028	0.0018	0.0014
	(0.003)	(0.002)	(0.005)	(0.002)	(0.002)
L.fti_4	0.0045**	0.0018	0.0016	-0.0002	-0.0016
	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)
L.fti_5	0.0003	-0.0035	0.0075***	-0.0007	0.0029*
	(0.003)	(0.003)	(0.003)	(0.001)	(0.002)
CAPB	-0.0447***	-0.0042	-0.0545**	0.0098	0.0490***
	(0.014)	(0.013)	(0.024)	(0.009)	(0.014)
CAB	-0.0246*	-0.0351***	-0.0374**	-0.0110	-0.0270***
	(0.013)	(0.012)	(0.019)	(0.007)	(0.007)
logreer	-0.0264	-0.7442**	0.1970	-0.8893***	0.1288
	(0.339)	(0.299)	(0.263)	(0.195)	(0.217)
GDP_Prct	0.0381**	0.0022	0.0651***	0.0203*	0.0106
	(0.018)	(0.019)	(0.018)	(0.010)	(0.012)
VIX	0.0274**	0.0112	0.0457***	0.0074	0.0001
	(0.014)	(0.013)	(0.011)	(0.006)	(0.007)
CB_PR	0.0547*	0.1994***	-0.0037	0.6969***	0.7655***
	(0.030)	(0.043)	(0.022)	(0.025)	(0.040)
Inflation	0.1436***	0.1659***	0.1144***	0.0894***	0.0610***
	(0.029)	(0.029)	(0.018)	(0.016)	(0.018)
Public_Debt	0.0017	0.0027	0.0094**	-0.0012	0.0008
	(0.001)	(0.002)	(0.004)	(0.001)	(0.001)
M3	-0.0076	-0.0327***	-0.0098	0.0048	0.0172**
	(0.009)	(0.011)	(0.007)	(0.004)	(0.008)
elec	0.1827***	0.1290**	0.2621***	0.0936***	0.0298
	(0.066)	(0.056)	(0.096)	(0.033)	(0.040)
crisis2	-0.2972**	-0.0462	-0.5920***	-0.1086	-0.1545*
	(0.150)	(0.147)	(0.140)	(0.085)	(0.083)
Observations	387	208	179	376	207
Number of groups	27	14	13	27	14
R-squared	0.9265	0.8881	0.8965	0.9349	0.9334

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 37: Panel Corrected Standard Errors (PCSE) and sub-FTI measures

Model	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	Spread GER	Spread GER	Spread GER	Spread USA	Spread USA	Spread USA
Country group	All	AE	EMDEs	All	AE	EMDEs
L.calculatedspreadGER	0.8477***	0.7435***	0.8135***			
	(0.027)	(0.055)	(0.027)			
L.calculatedspreadUSA				0.8032***	0.6564***	0.7772***
				(0.027)	(0.039)	(0.032)
L.fti_1	-0.0035	-0.0022	-0.0027	-0.0024	-0.0052***	0.0161**
	(0.004)	(0.004)	(0.011)	(0.003)	(0.002)	(0.007)
L.fti_2	-0.0033	-0.0019	-0.0036	-0.0049*	-0.0073***	-0.0215***
	(0.004)	(0.003)	(0.007)	(0.003)	(0.002)	(0.005)
L.fti_3	-0.0063	-0.0033	-0.0077	0.0025	0.0012	0.0079
	(0.004)	(0.005)	(0.008)	(0.003)	(0.003)	(0.006)
L.fti_4	0.0072*	0.0024	0.0032	0.0031	0.0020	-0.0025
	(0.004)	(0.003)	(0.008)	(0.003)	(0.002)	(0.004)
L.fti_5	-0.0048	-0.0058*	0.0052	-0.0014	-0.0074**	0.0064**
	(0.004)	(0.003)	(0.007)	(0.003)	(0.004)	(0.003)
CAPB	-0.0839***	-0.0127	-0.1754***	-0.0430***	-0.0071	-0.0487**
	(0.022)	(0.025)	(0.040)	(0.015)	(0.012)	(0.022)
CAB	-0.0442**	-0.0316**	-0.0519*	-0.0725***	-0.0575***	-0.1007***
	(0.020)	(0.015)	(0.027)	(0.015)	(0.013)	(0.023)
logreer	-0.0987	-0.1370	0.8413	-0.4505	-1.0711***	0.0599
	(0.493)	(0.481)	(0.988)	(0.387)	(0.361)	(0.451)
GDP_Prct	0.0024	-0.0126	-0.0076	-0.0073	-0.0485***	0.0185
	(0.029)	(0.020)	(0.060)	(0.019)	(0.015)	(0.030)
VIX	0.0034	-0.0067	0.0025	0.0441***	0.0254**	0.0587***
	(0.020)	(0.013)	(0.044)	(0.014)	(0.011)	(0.020)
CB_PR	-0.0119	-0.0714	-0.0297	0.0570**	0.1236***	0.0156
	(0.035)	(0.047)	(0.058)	(0.027)	(0.035)	(0.038)
Inflation	0.0448	0.0898***	0.0356	-0.0247	0.0439*	-0.0603**
	(0.037)	(0.030)	(0.058)	(0.032)	(0.023)	(0.026)
Public_Debt	-0.0017	0.0001	0.0000	-0.0026**	0.0016	0.0085**
	(0.002)	(0.002)	(0.007)	(0.001)	(0.002)	(0.003)
M3	-0.0123	-0.0237*	-0.0161	-0.0024	-0.0130	-0.0148
	(0.017)	(0.013)	(0.022)	(0.010)	(0.010)	(0.013)
elec	0.0238	0.1021	-0.1057	0.1390**	0.1082**	0.2056
	(0.088)	(0.076)	(0.181)	(0.066)	(0.050)	(0.133)
crisis2	0.1209	0.3129**	-0.0027	0.0682	0.2158	-0.1384
	(0.221)	(0.140)	(0.509)	(0.171)	(0.139)	(0.234)
Observations	397	208	189	397	208	189
Number of groups	27	14	13	27	14	13
R-squared	0.8710	0.6999	0.8408	0.8415	0.7873	0.7523

Note: Robust standard errors in parentheses. A constant is included in each regression, but not shown in the table.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Figure 11: Panel local projections. Main variable: Short-Term interest rate

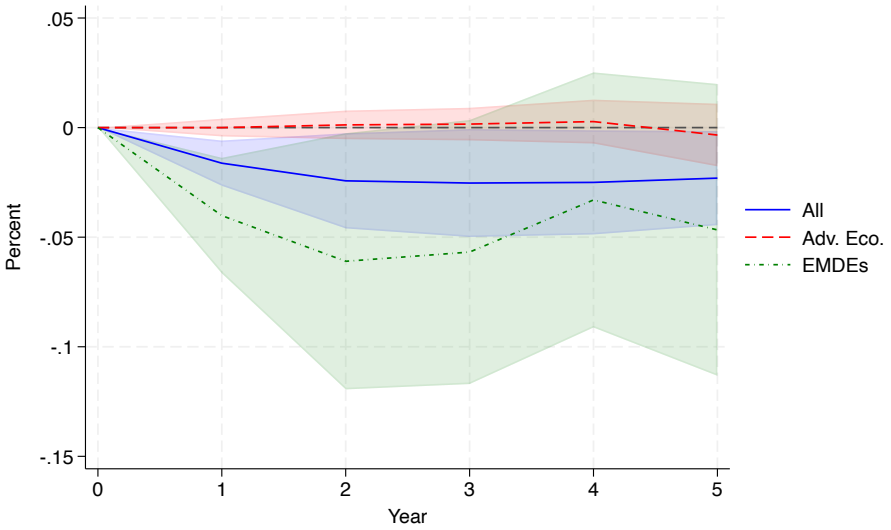

Figure 12: Panel local projections. Main variable: Spread vis-à-vis GER

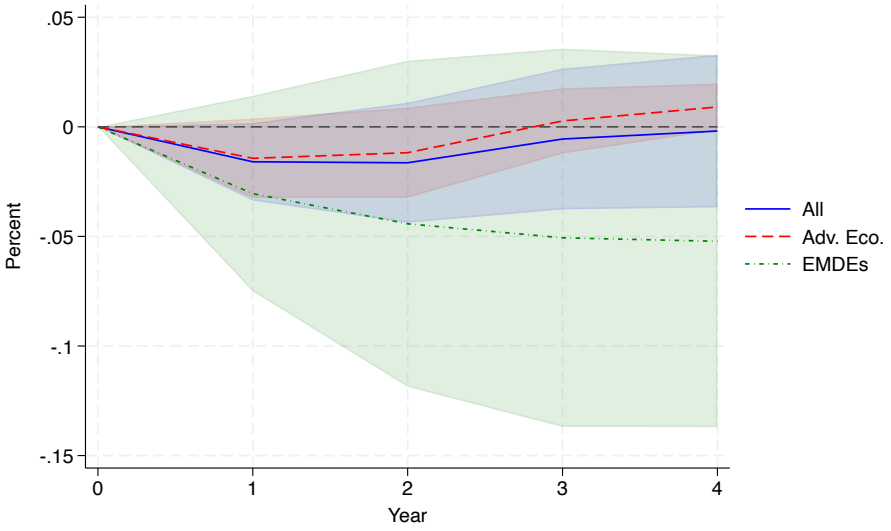

Figure 13: Panel local projections. Main variable: Spread vis-à-vis USA