https://twitter.com/ResearchRem

https://www.linkedin.com/company/researchrem

https://www.facebook.com/researchrem/

## The Latest REM **Working Papers**

The center of **Research in Economics and Mathematics** (REM) circulates research, notably by its affiliated members, as working papers intended for professional and public discussion and comment. The papers have not been peer reviewed.

| Table of contents |
|---|

1. This Changes Everything: Climate Shocks and Sovereign Bonds , Serhan Cevik, João Tovar Jalles, *Working Paper 0132-2020*

2. Financial Crises and Climate Change, João Tovar Jalles, *Working Paper 0131-2020*

3. On the Performance of US Fiscal Forecasts: Government vs. Private Information, Zidong An, João Tovar Jalles, *Working Paper 0130-2020*

4. The Size of Government, António Afonso, Ludger Schuknecht, Vito Tanzi, *Working Paper 0129-2020*

5. Indicators of Economic Crises: A Data-Driven Clustering Approach , Maximilian Göbel and Tanya Araújo, *Working Paper 0128-2020*

6. The return of fiscal policy and the euro area fiscal rule , Vítor Constâncio, *Working Paper 0127-2020*

| REM Vacancies – Open positions |
|---|

Post-Doctoral Fellowship
**Closing date:** 31/05/2020
Post-Doctoral Position
**Closing date:** 31/05/2020
Call for Applications for PhD Research Grants
**Closing date:** 31/05/2020

| Events |
|---|

8th UECE Conference on Economic and Financial Adjustments, ISEG/UL – School of Economics and Management / University of Lisbon, Lisbon, 27th November 2020.

| REM **Working Papers** |
|---|

This Changes Everything: Climate Shocks and Sovereign Bonds , Serhan Cevik, João Tovar Jalles, *Working Paper 0132-2020*

Climate change is already a systemic risk to the global economy. While there is a large body of literature documenting economic consequences, there is scarce research on the link between climate change and sovereign risk. This paper investigates the impact of climate change vulnerability and resilience on sovereign bond yields and spreads in 98 countries over the period 1995–2017. We find that the vulnerability and resilience to climate change have a significant impact on the cost government borrowing, after controlling for conventional determinants of sovereign risk. That is, countries that are more resilient to climate change have lower bond yields and spreads relative to countries with greater vulnerability to climate change. Furthermore, partitioning the sample into country groups reveals that the magnitude and statistical significance of these effects are much greater in developing countries with weaker capacity to adapt to and mitigate the consequences of climate change.

Financial Crises and Climate Change, João Tovar Jalles, *Working Paper 0131-2020*

We empirically assess by means of the local projection method, the impact of financial crises on climate change vulnerability and resilience. Using a new dataset covering 178 countries over the period 1995–2017, we observe that resilience to climate change shocks has been increasing and that advanced economies are the least vulnerable. Our econometric results suggest that financial crises (particularly systematic banking ones) tend to lead to a short-run deterioration in a country´s resilience to climate change. This effect is more pronounced in developing economies. In downturns, if an economy is hit by a financial crisis, climate change vulnerability increases. Results are robust to several sensitivity checks.

On the Performance of US Fiscal Forecasts: Government vs. Private Information, Zidong An, João Tovar Jalles, *Working Paper 0130-2020*

This paper contributes to shed light on the quality and performance of US fiscal forecasts. The first part inspects the causes of official (CBO) fiscal forecasts revisions between 1984 and 2016 that are due to technical, economic or policy reasons. Both individual and cumulative means of forecast errors are relatively close to zero, particularly in the case of expenditures. CBO averages indicate net average downward revenue and expenditure revisions and net average upward deficit revisions. Focusing on the causes of the technical component, we uncover that its revisions are quite unpredictable which casts doubts on inferences about fiscal policy sustainability that rely on point estimates. Comparing official with private-sector (Consensus) forecasts, despite the informational advantages CBO might have, one cannot unequivocally say that one or the other is more accurate. Evidence also seems to suggest that CBO forecasts are consistently heavily biased towards optimism while this is less the case for Consensus forecasts. Not only is the extent of information rigidity is more prevalent in CBO forecasts, but evidence also seems to indicate that Consensus forecasts dominate CBO's in terms of information content.

The Size of Government, António Afonso, Ludger Schuknecht, Vito Tanzi, *Working Paper 0129-2020*

We discuss and provide an overview of the size and role of the government, notably in terms of what the government "should" do, how the government could spend and intervene in the economy, how much governments spend and what they spend their money on. This is done from a historical perspective and also in a stylized way via assessing total expenditure, the composition of public expenditure for advanced, emerging and developing countries.

Indicators of Economic Crises: A Data-Driven Clustering Approach , Maximilian Göbel and Tanya Araújo, *Working Paper 0128-2020*

The determination of reliable early-warning indicators of economic crises is a hot topic in economic sciences. Pinning down recurring patterns or combinations of macroeconomic indicators is indispensable for adequate policy adjustments to prevent a looming crisis. We investigate the ability of several macroeconomic variables telling crisis countries apart from non-crisis economies. We introduce a selfcalibrated clustering-algorithm, which accounts for both similarity and dissimilarity in macroeconomic fundamentals across countries. Furthermore, imposing a desired community structure, we allow the data to decide by itself, which

combination of indicators would have most accurately foreseen the exogeneously defined network topology. We quantitatively evaluate the degree of matching between the data-generated clustering and the desired community-structure.

[The return of fiscal policy and the euro area fiscal rule](), Vítor Constâncio, *Working Paper 0127-2020*

The text describes the theoretical developments of the assignment rules regarding fiscal and monetary policies and the respective roles in macroeconomics stabilisation. Monetary policy emerged as the dominant policy, reducing the active macro role of fiscal policy to taking care of debt sustainability. This consensus started to change, and a new view has appeared, giving a more active role to fiscal policy. The article concludes with a brief analysis of fiscal rules, followed by a discussion about the European Union fiscal framework, and its necessary revision.