REM Newsletter 18/2021

January 27, 2021

https://twitter.com/ResearchRem
https://www.linkedin.com/company/researchrem
https://www.facebook.com/researchrem/

Editors: António Afonso, Isabel Proença, Joana Pais
https://rem.rc.iseg.ulisboa.pt/
Contacts: Phone: +351 213 925 912. e-mail: rem@iseg.ulisboa.pt

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 The papers have not been peer reviewed.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

Events

For your 2021 calendar:

9th UECE Conference on Economic and Financial Adjustments, ISEG/UL – Lisbon School of Economics and Management/University of Lisbon, **July 30, 2021**. Submissions until **15 June 2021**, to rem@iseg.ulisboa.pt

INFER 2021, 23rd Annual Conference, ISEG/UL – Lisbon School of Economics and Management/University of Lisbon, **September 8-10, 2021.** Submissions until **31 July 2021**, via Conference Maker: https://editorialexpress.com/conference/INFER2021.

Announcements

Call for applications for PhD Research Grants 2021

Closing date: 31/05/2021

REM Young Researcher Award 2020

The prize awards the best Master thesis defended at ISEG, in the period January 2020 – December 2020, and whose supervisor is a member of REM in one ISEG Master courses.

Prize recipients (ex-aequo)

Alexandre Sousa
Monetary and Financial Economics

Ludgero Glórias
Applied Econometrics and Forecasting

Ragnar Gudmundarson
Actuarial Science

Supervisor
António Afonso

Supervisor
Isabel Proença

Supervisors
Alexandra Moura, Manuel Guerra

REM Working Papers

Does the Introduction of Stock Exchange Markets Boost Economic Growth in African Countries?

António Afonso, Max Reimers, *Working Paper 0160-2021*

We assess whether the introduction of private equity capital markets effects economic growth in African countries. We address this issue by focussing on stock exchange markets as the predominant type of new equity markets, using a Diff-in-Diff regression method. The analysis uses a panel data set from48 Sub-Saharan countries over the time range of 1970-2018.23 countries are part of the "treated" group–which introduced international stock exchanges–and 25 "untreated" countries serve as the control group. Our results show that when compared with the time period prior to the introduction of stock exchange markets, GDP per capita rises by the amount of 532US$ (around 40% of the Sub-Saharan average) after the introduction of equity capital markets in the treated countries. Over the ten years post introduction, the effect is hump-shaped, with effects becoming statistically significant from the first year after implementation, with a peak in Year 5, and it then becomes statistically insignificant from then onwards.

Asset Liability Management: Evidence from the Banco de Portugal defined benefit pension fund

Maria Teresa Medeiros Garcia, Liane Costa Gabriel, *Working Paper 0159-2021*

The level of financing of pension funds and the inherent risk of default is an issue which has assumed increasing relevance, due to the difficulties that pension funds have been facing over recent years, which mainly result from changes in demographic conditions, such as the ageing of the population and increasing longevity, compounded by the 2008 financial crisis and the Great Recession. Asset Liability Management (ALM) models can be employed to optimize assets and liabilities, and at the same time minimize the risks of a fund, whereby the choice of the best model for a fund depends on the fund's specific characteristics and risk-return profile. This paper is mainly a theoretical study, where a literature review is first carried out both on pension plans and pension funds and also on the importance of ALM. This is followed by an analysis of the evolution of this risk management instrument and a description of the selected models is then presented. To conclude, an analysis of the application of ALM fora pension fund, the Banco de Portugal defined benefit pension fund, is carried out.

(Non-) Keynesian Effects of Fiscal Austerity: New Evidence from a large sample

António Afonso, José Alves, João Tovar Jalles, *Working Paper 0158-2021*

We empirically assess whether a usually expected negative response of private consumption and private investment to a fiscal consolidation is reversed. We focus on a large sample of 174 countries between 1970 and2018. We also employ three alternative measures of the Cyclically Adjusted Primary Balance used to determine fiscal episodes: i) the IMF-WEO based; ii) the HP-based; and iii) the Hamilton(2018)-

based. We find that: i)increases in government consumption have a Keynesian effect on real per capita private consumption; ii)there is a positive effect of tax increases on private consumption when there is a fiscal consolidation; iii) there is a crowding-in effect for private investment, from fiscal contractions. Moreover, expansionary fiscal consolidations occur particularly in highly indebted advanced economies following an increase in taxes. Finally, the negative effect of taxation on private consumption is larger when an economy is experiencing a financial crisis but it is not consolidating.

Global value chains, value-added generation and structural change in EU core and periphery economies: An Input-Output approach Tiago Domingues, João Ferreira do Amaral, João Carlos Lopes, *Working Paper 0157-2021*

Backward and forward integration are growing in most sectors across the European Union (EU). To benefit from this increasing participation in Global Value Chains (GVC), the increase in imports, namely of intermediate inputs, should be followed by adequate growth in exports. The external dependency of many industries and the corresponding low domestic value-added generated in production, combined with relatively weak export potential can cause high trade deficits and growing external debt to GDP ratios. This paper evaluates the inter-industry participation in GVCs considering eight different EU economies and 25 tradable sectors. Based on Input-Output production multipliers and intermediate import coefficients, we propose an empirical method to assess the evolution of vertical specialization, domestic value-added generation and external dependency. After a convenient arrangement of the Leontief inverse matrix, the evolution of backward linkage indicators can be used to detect structural changes, particularly quantifying a "net growth effect" and an "external dependency effect". This method allows the classification of each sector into different areas considering their recent structural evolution and it can be useful as a simple, but suggestive, device to compare different economies in a given period or assess their structural development processes in time. A detailed comparison of one EU periphery country (Portugal) and one EU core country (Germany) is made, based on WIOD data for the period 2000-2014, followed by a brief presentation of six other cases (Austria, Check Republic, Belgium, Finland, Greece, and Netherlands). Particular attention is given to differences within and between countries before and after the global financial crisis.

International transmission of interest rates: the role of international reserves and sovereign debt

António Afonso, Florence Huart, João Tovar Jalles, Piotr Stanek, *Working Paper 0156-2021*

We analyse the international transmission of interest rates by focusing on the role of the accumulation of international reserves and on the financing of sovereign debt. An increase in foreign exchange reserves is expected to moderate the influence of U.S. interest rates. However, a high level of government debt raises the sovereign risk premium. Moreover, an increase in the stock of government debt denominated in foreign currency may increase the expected rate of depreciation of the domestic currency. We explain the theoretical mechanisms in a model, which describes the money market equilibrium in an economy with capital account openness. Then, we test the predictions of the model for a panel of advanced and developing economies over the period 1970-2018. Our main findings are: i) significant spillovers from the U.S. interest rates to other countries, mostly for Advanced Economies; ii) a dampening effect of the share of external liabilities in the domestic currency, clearly a determinant of risk premium; iii)a negative effect of international reserves on interest rates, as expected; iv) higher reserves decrease risk premia, for long-term interest rates; v)the significance of spillovers fades once the sovereign debtreaches100% of GDP in developed countries.

Financial development and macroeconomic performance: a cointegration approach

Cândida Ferreira, *Working Paper 0155-2020*

The paper tests the existence of long-term relations, measured through cointegration, between all the IMF financial development indices and some macroeconomic performance indicators applying panel cointegration tests in a panel with 46 countries, and in a panel including only the sub-sample of the 28 EU countries over the interval 1990-2017. Overall, there are no significant differences between the results obtained for whole sample and the panel including only the EU countries. The results obtained clearly point to the existence of cointegration between the financial development indices and the real Gross Domestic Product, as well as with the inflation, the unemployment rate, and very particularly, with the current account, and with the net international investment position. The results also show there are no significant differences between the results obtained for the financial institutions and for the financial markets. Moreover, the results related to the specific aspects addressed by the IMF indices very well demonstrate that much more important than the simple access to or the depth of the financial institutions and markets is the efficiency of these institutions and markets.

Breaking Life Expectancy into Small Pieces Audrey Ugarte and Onofre Alves Simões, *Working Paper 0154-2020*

Understanding mortality patterns and how they evolve in time has always been a challenging subject and many researchers have worked on it. We wish to enhance existing knowledge on the topic, by decomposing the effects on mortality of more than400 combinations of “age class/Mortality Chapter”, in three countries with different characteristics and for a period of 44years.Using classic decomposition methods, it is possible to observe a steady increase in Life Expectancy at birth and a decrease in the Gender Gap, identifying the main contributors to the phenomena in terms of “age class/Mortality Chapter”. Another finding is the existence of important similarities among countries.