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"The evolution of car ownership in Cyprus"

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https://ucy.ac.cy/erc/documents/DOP_04-19.pdf

We utilize data on car registrations and multiple household surveys to describe the evolution of car ownership in Cyprus over the last 20+ years. Car ownership expanded rapidly in the 1990s and 2000s, up until the financial crisis. Much of this is due to the importation of used vehicles; the magnitude of this segment is a unique feature of the Cyprus car market. As a result, Cyprus has a large and aging car fleet, and associated level of traffic and pollution. The financial crisis stemmed the increase in the size of the fleet but contributed to its further aging.

"The Shadow Economy in Cyprus: Evidence from the Electricity Consumption and Currency Demand Methods"

Christoforos Andreou, Elena Andreou, Stephanie Michael, George Syrighas

https://ucy.ac.cy/erc/documents/DOP_07-19.pdf

The Pandemic has brought about a renewed interest in estimating the size of the shadow economy as governments are striving to find additional revenues to support the fast declining economic activity and finance their substantial public deficits. This paper provides new estimates of the shadow economy in Cyprus using two different macro approaches; the energy consumption method (ECM) (Kaliberda and Kaufmann, 1996) and the currency demand approach (Tanzi, 1980, 1983). To the best of our knowledge, this is the first paper that applies the energy consumption approach for estimating the shadow economy focusing only on Cyprus. The empirical analysis covers a more recent period, using quarterly data for the period 1995-2018, during which the Cypriot economy has undergone significant structural changes such as financial liberalization, the abolition of capital controls, accession to the European Union, the adoption of the Euro as well as the recent banking crisis. During this period the average size of the shadow economy in Cyprus based on the currency approach is estimated around 11-18% of GDP while for the electricity consumption the respective estimates are on average between 25%-34%.

"Probing the mechanism: lending rate setting in a data-driven agent-based model"

George Papadopoulos

https://ucy.ac.cy/erc/documents/DOP_06-19.pdf

This study has examined the capacity of three different mechanisms, commonly used by the ABM literature, to approximate the historical series of consumer credit interest rates. The mechanisms were implemented within a data-driven agent-based model and their performance was studied in three country-specific scenarios. Naturally, the primary result is the identification of the best performing mechanism and its distinct parameter values. Nonetheless, the analysis has uncovered three more generic patterns which extend beyond the determination of the specific mechanism per country. First, as expected, there is heterogeneity across country scenarios regarding both the mechanism family and its particular parameter figures that better approximate the observed data. However, it seems

that, in two cases, the simple candidates outperformed their more complicated counterparts. More precisely, in CY, the borrower-risk only rule exhibited a better fit than any of the capital adequacy related rules. In the UK scenario, candidate configurations from all three mechanism families performed equally well. Therefore, given its lower complexity, the borrower-risk only rule is considered to be the dominant one. Finally, an interesting result is the possible existence of a dynamic behaviour on the bank's side, likely influenced by the prevailing economic conditions. In two scenarios (CY and SI), the best-performing mechanisms were largely identified according to their performance on a certain part of the sample. In both cases the GFC and its repercussions seemed to be the catalytic event, differentiating behaviour in the sub-periods determined by its occurrence.

“Survey-derived proxies for uncertainty: the case of Cyprus”

Nicoletta Pashourtidou

https://ucy.ac.cy/erc/documents/DOP_03-20.pdf

This study uses firm-level data from business surveys conducted in Cyprus to construct proxies for economic uncertainty at the sectoral and aggregate levels. The proxies are in the form of ex ante disagreement and ex post forecast errors. Ex ante disagreement proxies are estimated using the dispersion of optimistic and pessimistic responses to expectation questions. Ex post forecast errors are derived by comparing expectations and realisations stated by individual respondents; the proxies are computed using the dispersion of ex post forecast errors. The proxies in the latter group are further decomposed into negative and positive uncertainty measures, depending on the direction of the errors. Uncertainty shocks measured by either ex ante disagreement or ex post negative forecast errors result in significant negative effects on sectoral confidence, employment and output; the negative effects are more pronounced and protracted in the sectors of construction and industry. At the aggregate level, proxies are constructed using the most informative sectoral proxies and are compared to alternative measures from survey and non-survey data. Shocks to aggregate uncertainty proxies generate negative and significant effects on total employment and aggregate output, which are rather protracted.

“Building Back Better” in Practice: A Science-Policy Framework for a Green Economic Recovery After COVID-19

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https://ucy.ac.cy/erc/documents/DOP_05-20.pdf

As current production and consumption patterns of humanity exceed planetary boundaries, many opinion leaders have stressed the need to adopt green economic stimulus policies in the aftermath of the COVID-19 pandemic, in line with the United Nations Sustainable Development Goals and the Paris Agreement on Climate Change. This paper provides an integrated framework to design an economic recovery strategy aligned with sustainability objectives through a multi-criterion, multi-stakeholder lens. The aim is to enable decisions by policymakers with the aid of transparent workflows that include both expert evidence that is based on quantitative open-source modelling, and qualitative input by diverse social actors

in a participatory approach. We employ an energy systems model and an economic input-output model to provide quantitative evidence and design a multi-criteria decision process in which we engage stakeholders from government, enterprises, and civil society. As a case study, we select thirteen green recovery measures that are relevant for the European Union member state of Cyprus and assess their appropriateness with numerous criteria related to environmental sustainability, socio-economic and job impact, and climate resilience. The results highlight trade-offs between immediate and long-run effects, between economic and environmental objectives and between expert evidence and societal priorities. Importantly, we find that a 'return-to-normal' economic stimulus is not only environmentally unsustainable but also economically inferior to most green recovery schemes.