

Newsletter Issue 31 – October 2015

The October issue of 'Economic Research' includes the following articles:

- (i) The economic cost of political instability, by M. Delis and C. Koutsampelas
- (ii) Persistence and Sources of Shocks in the Cypriot Economy: A Multi-sectoral Model, by N. Pashourtidou and C. Savva
- (iii) Macroeconomic influences on Cyprus House Prices: 2006Q1-2014Q2, by P. Sivitanides
- (iv) Multilateral Comparisons of Productivity among European Countries, by T. Mamuneas and E. Ketteni
- (v) Credit Risk Measurement in Financial Institutions: Going Beyond Regulatory Compliance, by M. N. Kyriacou
- (vi) The State and the Future of Cyprus Macroeconomic Forecasting, by E. Andreou and A. Kourtellos.

Brief summaries:

(i) The scope of our analysis is to examine the link between economic performance and political instability. In doing so, we examine macroeconomic data from 68 countries during 1960-2001. The results highlight the link between economics and politics. An unstable political environment (as defined by the frequencies of unexpected elections) exerts a negative impact upon the economic prospects of a country.

(ii) This paper studies the size of the long-run response of output to different types of shocks known as the persistence of shocks. The empirical analysis uses quarterly data on the gross value added of eight sectors that cover the whole of economic activity in Cyprus, to examine the long-run response of sectoral and aggregate output to macroeconomic and other shocks. The macro-shocks relate to oil prices, credit, foreign exchange and the stock market. The main findings suggest that sector-specific shocks are at least as important as macroeconomic shocks in generating output fluctuations at the sectoral and aggregate level. Furthermore, the sectors of financial and insurance activities, professional services, construction and other services are found to be associated with higher persistence of shocks compared to other sectors and therefore experience larger and more protracted output fluctuations when hit by shocks. These findings suggest that more targeted economic policies and reforms might be required to address sector-specific weaknesses and to limit the persistence of sector-specific shocks. Among the macro shocks examined, credit and oil price shocks are found to have the strongest direct influence on aggregate output growth.

(iii) This paper attempts to explain the determinants of intertemporal variations in housing prices in Cyprus over the last nine years. The analysis focuses on explaining quarterly percentage changes in the House Price Index published by the Central Bank of Cyprus. After estimating several alternative specifications we were able to explain about 70% of the quarterly percentage changes in Cyprus house prices. Our findings indicate that nominal GDP per capita, and, alternatively, nominal GDP, have the largest impact on prices followed by construction costs and the number of households. Interest rates were found to have the smallest effect. The results provide also indications of an asymmetric effect of GDP on house prices before and after the Lehman Brothers collapse. We believe that the considerably stronger effect of GDP on house prices during the pre-crisis period was due to the abundance of both equity and debt capital for house purchases.

(iv) The objective of this multilateral comparison study is to analyse differences between levels of total factor productivity among European countries for the 2000–2012 period. Our

results indicate that countries in Western and Central Europe are doing better with respect to the level of productivity compared with Mediterranean and Eastern European countries. Furthermore, we observe that most of the countries experienced increases in their productivity throughout the years. The productivity increases in Western and Central European countries are mainly due to increases in output, while the increases in Mediterranean and Eastern European countries are mainly due to the more efficient use of their inputs. It is important to note that our results suggest that the less productive countries are those with the highest productivity growth. That is, the Mediterranean and Eastern European countries show a faster productivity growth compared with the Western/Central European countries.

(v) Capital adequacy is an important factor considered by financial institutions when they formulate their lending policy and balance sheet growth strategy. The majority of financial institutions employ the Standardised Approach for calculating their credit risk capital requirements as they cannot meet the stringent criteria stipulated in Basel II (and Basel III) and qualify for the more advanced approaches. The Standardised Approach lacks the necessary risk sensitivity and the resulting regulatory capital requirements serve as a very crude proxy of the actual credit risk taken. Strategic decision making based on this approach, often provides institutions with a perverse incentive for pursuing (a) collateral-driven lending policies rather than focusing on obligor financial standing and repayment ability; (b) balance sheet short-term growth strategies where excess liquidity takes the form of high-yield government bond investments. This paper presents two simplified credit risk models that are not data demanding and, by addressing the very weaknesses of the Standardised Approach, more informative in measuring the possible future loss impact of credit risky business or investment decisions. It provides a comparative analysis of the presented models with empirical results suggesting that financial institutions would need to do more than simply maintaining compliance with the minimum regulatory capital requirements.

(vi) In this paper, some state-of-the-art methods in the macroeconomic forecasting literature that can be adapted for macroeconomic forecasting in Cyprus are discussed, emphasizing on the Mixed Data Sampling (MIDAS) models. MIDAS models are reduced form parsimonious regression frameworks, which do not require modelling the dynamics of the individual high frequency predictor series. The choice is between using a MIDAS model, which will use all the information in the sample by using the data at the higher frequencies or aggregate the data first (typically by taking an average) and then specify a predictive model at the lower frequency. Not using the readily available higher frequency series has two important implications: (1) one loses information through temporal aggregation which can lead to biased forecasts and (2) one foregoes the possibility of providing real-time daily, weekly or monthly updates of forecasts. The topic of mixing different sampling frequencies also emerges even when time series are available at the same frequency, but one is interested in multi-period forecasting. Multi-period forecasts can also be constructed using a mixed-data sampling approach. For example, a MIDAS model can use past quarterly data to produce directly multi-period forecasts. The MIDAS approach can be viewed as a middle ground between the direct and the iterated approaches. Namely, one preserves the past high frequency data, to directly produce multi-period forecasts. In addition, we review multivariate models and especially Vector Autoregressive (VAR) models that deal with mixed frequency variables in forecasting key macroeconomic variables (MIDAS-VAR). This is compared with the standard state-space approach of structural multivariate models which involves the Kalman filter.