EXECUTIVE SUMMARY

The purpose of this study is to empirically investigate the relationship between the functional distribution of income and the aggregate demand in Greece, seeking to contribute both theoretically and empirically to the ongoing debate conducted internationally and with particular intensity in recent years. For this purpose, a macro-econometric demand-driven model of growth and income distribution is estimated, in order to assess the magnitude and the direction of the effect of a change in the functional income distribution on demand and finally on the country's GDP. We follow the methodological approach developed by Stockhammer et al. (2009), which is an empirical variant of the Bhaduri and Marglin (1990) model. The first step is to evaluate the single behavioral equations of the demand components –consumption, investment, and net exports– and then sum the estimated income distribution coefficients to arrive at the overall impact on aggregate demand.

This study attempts to contribute to the existing literature by investigating the Greek economy using the latest available statistical data up to the eve of the outbreak of the Covid-19 pandemic. It also extends the model to include critical for the demand functions variables in two ways: first, by including financial variables such as private household debt and interest rates as far as the consumption function is concerned, and second, by including the public investment variable as a determinant of private investment. In this way, the criticism for potential bias due to the omission of explanatory variables is addressed. In addition, all models are estimated with appropriate time series econometric methods, such as the Autoregressive Distributed Lags (ARDL) method and the Fully Modified Ordinary Least Squares (FMOLS) method, which take into account the possibility of endogeneity between regressors (simultaneity bias). In addition, the robustness of the estimates is checked by estimating two sub-sample periods given the sufficiently large span of the total sample.

The direction of each economy's reaction to changes in income distribution depends on its productive structure, its stage of development, historically developed institutions and consumption patterns as well as conjunctural factors. A typology of aggregate demand regimes has been developed in the relevant literature depending on the "sign" of the effects of changes in the functional distribution of income on the aggregate demand and eventual economic growth. If an increase in the share of wages leads to an increase in aggregate demand, then the demand regime is characterized as wage-led; otherwise, it is profit-led. It is therefore reasonable to conclude that pro-capital policies in a wage-led demand regime will shrink demand, as the negative effects on consumption will outweigh any positive effects on investment and/or net exports.

The empirical findings of our analysis largely confirm that the demand regime of the Greek economy is wage-led both as a closed and an open economy. This result is robust when estimating discrete time periods, such as 1960–2017, 1960–1989/90, 1990/91–2017 and prior to the outbreak of the global financial crisis, 2008, and at the end of the sample period, 2017. In addition, due to the relatively high percentage of self-employed in Greece, we performed the empirical analysis on two distinct models, one of which corrects the income distribution variables for the income of self-employed without personnel. This differentiation brought about some minor changes in the estimates of the coefficients of interest, yet without affecting the wage-led nature of the demand regime.

More specifically, the estimation of the consumption function shows a sufficiently strong positive result (from an exogenous increase in the share of wages) which ultimately outweighs the negative effects resulting from the investment and net export functions.

The consumption model was also estimated by including consumer borrowing and the long-term real interest rate. However, due to the limited availability of consumer credit statistical data, the econometric analysis was conducted only for the second sub-period (1990-2017). The main conclusion of this exercise is that the results do not show any significant differentiation in relation to the estimation results without the inclusion of consumer borrowing and the long-term real interest rate. Household borrowing has a positive impact on consumption and is statistically significant only in the model specification that has no correction for the self-employed, while the long-term real interest rate is not statistically significant in either of the model specifications.

The analysis of private investment is based on the conventional accelerator model of investment that also incorporates cash flows and the long-run interest rate. Our statistical findings suggest a positive impact of the profit share (negative impact of the wage share), while as it is usually the case in the literature, demand has a strong positive effect; the real long-term interest rate, when it is statistically significant, has a minor impact.

The third channel through which income distribution affects aggregate demand is through its impact on net exports. To estimate the impact of income distribution on net exports, we use the three-step approach developed in Stockhammer et al. (2009), and further used in Onaran et al. (2011), Stockhammer et al. (2011), Onaran and Galanis (2014), Onaran and Obst (2016) and Obst et al. (2020). The findings of the analysis are in line with those of the relevant literature. An increase in the share of wages would reduce net exports, but not to such an extent to reverse the overall positive impact on demand through increased consumption. The same conclusion is reached for all the examined sample periods and specifications of the model.

Governments own the policy tools to directly influence the distribution of income through fiscal, social and labor market policies (Lavoie and Stockhammer, 2013) towards a direction that is more compatible with the characteristics, along with the potential fiscal or other restrictions, of the demand regime of the economy. Given the findings of our analysis, it appears that wage moderation policies, if maintained, may deprive the economy of part of the demand growth and the unemployment reduction that would have been achieved if pro-labour policies, in other words policies that increase the wage share, had been implemented. Policies moving in this direction can be summarized in those that strengthen the Welfare State, labor market institutions, increase unemployment benefits, increase the minimum wage, reduce the dispersion of wages and salaries, and link real wage growth to labor productivity.

Governments could also proceed to public investments in infrastructure that international experience has shown to boost overall economic growth (for instance, Deleidi et al. (2020), Furceri and Zdzienicka (2012). See also IMF (2014) and European Commission (2014)) and productivity and provide incentives for specific private sector investments that will stimulate labor productivity at firm, industrial and sectoral levels. The European project for the Next Generation EU through the Recovery and Resilience Fund is a historically significant opportunity for the development of the Greek economy. In an open economy, investments and labor productivity growth reduce production costs without the need to reduce wage costs, while increasing the competitiveness of the economy (Romer, 1996).