Business cycles and income inequality in the EU

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Extended Abstract

The notion of business cycles refers to the fluctuations of the GDP of an economy, characterized by a period of expansion and high growth rates that is followed by a period of low growth and recession or contraction. This sequence of changes is recurrent but not periodic. Recessions often start at the peak of the business cycle, when an expansion exhausts its dynamism, and end at the trough of the business cycle, when the next expansion begins. A recession is actually a specific sort of vicious cycle, with cascading declines in output, employment, income, and sales that feedback into a further drop in output, spreading from industry to industry and region to region. On the other side, a business cycle recovery begins when that recessionary vicious cycle reverses and becomes a virtuous cycle, with rising output triggering job gains, rising incomes, and increasing sales and output. With business cycle recessions having apparently become less frequent, economists focused on growth cycles, which consist of alternating periods of above-trend and below-trend growth. Growth rate cycles - also called acceleration-deceleration cycles - are comprised of alternating periods of cyclical upswings and downswings in the growth rate of an economy, as measured by the growth rates of the same key coincident economic indicators used to determine business cycle peak and trough dates. The notion of business cycle is not compatible with the neoclassical understanding of the economy, which operates always in equilibrium and the only variations from a steady state growth path may be arising from random or external shocks. The notion is more compatible to a Keynesian or neo-Keynesian setting where market imperfections or failures and sub-optimal allocations of resources allow for a constant fluctuation of key economic indicators.

There is a long theoretical and empirical discussion in the literature connecting income inequalities and business cycles that is mostly centred around two distinct, but interrelated, research questions. The first question is related to the impact of growth on inequality. If the process of economic growth in mixed market economies leads to increasing income inequalities, it is implied that growth has a social cost that cannot be ignored for long time. In contrast, if the process of economic growth tends to make the pie not only bigger, but also more equally shared, then it is more inclusive and perhaps more sustainable. A new set of questions, of course, arises about the role of market dynamics or public policy options in reducing inequality across the different varieties of capitalism and the conditional factors that facilitate or impede their impact. The second question reverses the way of the causality and is related to the impact of income inequality on economic growth. This is an important question with a simple logic: if inequality impedes growth, then it is not just a social issue or an issue of income distribution that can be discussed separately, but a central issue of economic development, as it reduces the size of the

pie and is a matter that affects the entire economy, not just the poor people. On the other hand, if inequality is augmenting growth, the discussion is very different, as it involves a growth-inequality trade-off and more questions about the level of inequality that can be tolerated as a sacrifice for higher growth. Of course, income inequalities and economic growth are linked by a causality relationship as the former might affect the latter and vice versa.

The paper intends to address these two extremely important research questions in a comprehensive way that provides policy relevant results with the use of recent data sets that allow for a better depiction of income inequality over time and across countries. The analysis of income inequalities is carried out through two alternative indicators: (a) the Gini index, which is based on the comparison of cumulative proportions of the population against cumulative proportions of income they receive; and (b) the wealth-to-income ratio which is the ratio between marketable (i.e., nonhuman) wealth and national income. From the various methodologies that study the relation between inequalities and business cycles, the paper the multiplier-accelerator model (or the Hansen-Samuelson model). This model is regarded as one of the first mathematical endogenous business cycles model. It explains the existence of business cycles and shows a dual causality relationship between national income (output) and investment. National income matches the total of government spending, consumption, and investment, and the change in national income is determined by the values of the accelerator and the multiplier. Particularly, the model is based on the multiplier analysis and the principle of acceleration in order to explain the changes in national income. The multiplier analysis claims that any change in spending and investments determines an increase in income and consumption greater than the initial amount spent. The accelerator is a multiplier-type factor that measures the proportion of investment increase generated due to the income increase. Concisely, an autonomous increase in income and consumption further induces an increase in investments through the acceleration effect. Furthermore, the interaction of the accelerator with the multiplier generates, under certain circumstances, continuous cyclical fluctuations. The combined effects of accelerator and multiplier on national income propagation generate various types of economic cycles with mild, damped, or explosive fluctuations, of varying amplitude and periodicity.

The analysis covers the period 1995-2020 and focuses on the EU countries (i.e., 27 countries). In the course of time, the EU has managed, to a great extent, to match the political to the geographical boundaries of the European continent. This is so as the EU, on the historical record of its formation, has managed, in a series of enlargements, to expand, first southwards and then eastwards, integrating countries economically less and less developed and institutionally less and less endowed. Within the EU framework, the gradual emaciation of (artificial) border impediments concerning the movement of people, products, production factors and money constitutes the structural element – and the pure essence – of the European (economic) integration process. The EU is, gradually, moving from a “space of places” to a “space of flows” and from a “space to States” to a “State of spaces”. Such a move (synonymous to the process of European integration) brings – together with the benefits (i.e., economic restructuring, sociopolitical transformation, democratization, curtailment of corruption, development) that are, indeed, too strong to be overlooked – effects which are of less unequivocal character. Closed borders distort market size, whereas the abolition of economic barriers generates (releases) all kinds of spatial dynamics that relate to the allocation of capital (i.e., physical and human), to productivity gains, to technology importation, to the realization of agglomeration economies, to access to foreign markets, and to import competition. EU countries, after a period of prosperity during the 1990s and the early 2000s, have been experiencing increasing income inequalities. The outbreak of the recent crises (global financial and economic crisis, refugee and migration

crisis, COVID 19 pandemic, energy crisis due to the Russo-Ukrainian war) incited the interest of researchers and policymakers about the behaviour of income disparities in relation to business cycles. Including a number of novelties and providing clear-cut empirical evidence, the paper contributes to a better understanding of the dynamics of the growth - inequality dipole and provides recommendations that can be translated into policy action.