Economic Analysis and Policy 44 (2014) 85–94

Contents lists available at ScienceDirect

Economic Analysis and Policy

journal homepage: www.elsevier.com/locate/eap

Full length article

Economic growth and the problem of balancing consumption between rich and poor☆

Debabrata Datta

Institute of Management Technology, Ghaziabad 201001, India

ARTICLE INFO

Article history:
Available online 15 February 2014

Keywords:
Sustainable development
Addilog Utility
Economic growth
Income elasticity
Luxury consumption
Resource allocation

ABSTRACT

As an economy experiences high growth rates, some sections of the population enjoy a more than proportionate rise in income. This leads to an increased allocation of resources towards the production of luxury goods. Since the production of luxury goods often requires more resources than the production of necessary goods, it may reduce not only the production of necessary goods, but also total production. This paper considers Houthakker's Indirect Addilog Utility Model and constructs a theoretical model to present this particular problem of growth. As an illustrative example, the model considers rice, where the land requirement for the production of aromatic rice is greater than that of ordinary rice. As income levels of the rich increases, the demand for aromatic rice increases and hence there is a shift in land devoted from the production of ordinary rice to high quality rice. Consequently, the total production of rice may decline. The model identifies factors that determine this possibility. The paper also looks at the relevant policy issues in this regard.

1. Introduction

Economic growth involves two aspects of sustainability. First the use of increasing quantities of resources to produce high growth means that we must address the problem of future resource availability, or sustainability over time. Second, during growth there is an additional problem of maintaining balance between the consumption of the rich and the poor. When an economy experiences initial growth, the high income section of the population utilises the growth opportunity better than the low income section, leading to increased income inequality. This inequality increases the demand for luxury goods. The resultant change in resource allocation may threaten the sustainability of the consumption level of the poor. This paper highlights this second aspect of sustainability during an initial period of economic growth. Using a theoretical model, we indicate that increased production of luxury goods may lead to a reduction in total production of necessary goods. Because this possibility adversely affects the poor, there is need for policy-driven management of changes in production, led by economic growth.

To elaborate on the above argument, this paper begins with literature survey in Section 1 and develops a production model in Section 2. Section 3 discusses the results derived from the model. The paper ends with Section 4, where we append several comments on the results and the policy conclusions.

☆ The author thanks the editor and anonymous referee for insightful comments on an earlier version of the paper. The author also thanks participants at the New Zealand Association of Economists conference in 2012, Stephen Turnovsky in particular, for their useful suggestions. The revision of the paper on the basis of these comments and suggestions has improved the quality of the paper; however, the usual disclaimer applies.

E-mail address: d.debabrata@gmail.com.

http://dx.doi.org/10.1016/j.eap.2014.02.002
0313-5926/

2. Literature survey

The consumption of luxury goods and its economic implications were an important topic of discussion for the pre-classical and classical economists. The debate first arose during the reign of Louis XIV when Boisguilbert, an early French political economist, argued that luxury consumption by the royal family impoverished peasants and adversely affected France (Ellis and Ellis, 2006). Voltaire and Montesquieu, however, argued that higher luxury consumption was a problem for small countries only, not for large countries, such as France (Ellis and Ellis, 2006). In Britain, Hume defended luxury consumption as a motivating factor for extra work, arguing that when luxuries are not available, people produce no more than enough to live on (Brewer, 1998; Marshall, 2000). Adam Smith, however, recognised the adverse effect of luxury consumption on savings and capital accumulation. He also admitted the positive role of luxury production in reducing the power of the nobles in agriculture as luxury production gave people the opportunity to earn a living outside agriculture as artisans (Ellis and Ellis, 2006). The classical economists often observed the luxury issue as a debate between agriculture and manufacturing. In this paper, however, we do not consider luxury in that sense, nor do we invoke any moral overtones in luxury consumption. Rather, we look at luxury in the same way as Cantillon, who observes that when France trades in champagne wine, a great amount of land is withdrawn from the subsistence consumption of the French population (Ellis and Ellis, 2006).

The important issue in our analysis is income inequality. Kuznets (1955) was the first researcher to consider the statistical relationship between growth and inequality. On the basis of a regression between the Gini coefficient of income distribution and per capita income across a large number of countries, Kuznets discovered an inverted U-shaped relationship between growth and inequality, implying a rise in inequality during initial economic growth and a fall in inequality in mature economies. Recent research, however, shows that growth in developed countries is no longer associated with any significant reduction in inequality (Aghion and Williamson, 1998; Easterly, 2007). Several other studies have also considered the effect of inequality on growth. Alesina and Rodrik (1994) and Benabou (1996) show that inequality has a negative impact on growth. However, Barro and Sala-i-Martin (1995) find that for high income countries there is a positive relationship between inequality and growth, while for low income countries, the relationship is negative. Aghion and Williamson (1998) show that despite having higher income inequality the Philippines achieved a much lower growth rate than that of South Korea.

Several theories seek to explain why inequality adversely affects growth (Rodríguez, 2000). Median voter theory argues that in an inequitable society, median income is less than average per capita income and therefore, the median voter is more concerned about redistribution than growth; hence the policies of elected governments focus more on redistribution (Meltzer and Richard, 1981). Alesina and Rodrik (1994) and Persson and Tabellini (1994) consider a scenario in which the government taxes capital to spend on redistributive policies. The median voter prefers a tax rate that is higher than the growth optimising tax rate, and thus growth is adversely affected. Rent seeking theory argues that inequality increases rent seeking activity and causes resource waste (Rodríguez, 1999). Socio-political explanations argue that inequality may lead to the higher participation of low income groups in violent political movements that cause higher uncertainty for investors, therefore reducing growth (Alesina and Perotti, 1996). Our paper introduces another explanation. Growth accompanied by inequality leads to increased production of luxury goods that need relatively large amounts of resources, and thus inequality may adversely affect growth.

Few papers examine the issue of sustainability from the perspective of inequality. One such study is by Berg and Ostry (2011), who examine inequality and unsustainable growth. Another important paper by Esteban and Ray (2006) describes how wealth inequality may distort public resource allocation. Our paper, however, takes a different line. We consider two types of goods, necessary goods and luxury goods. Luxury goods have income elasticity greater than unity. As an economy achieves higher growth, the income level of the prosperous section of society increases significantly over a short period and so too income inequality. This change in income distribution triggers a perceptible change in demand patterns. The increased demand for luxury goods increases the production of luxury goods by the market mechanism. If the production of luxury good uses more resources than necessary goods with given resources, an increase in the production of luxury goods may imply a substantial fall in the production of necessary goods, which will make it more difficult for the poor to maintain their livelihoods. Sustainable development should imply that all income groups, clans and communities have the opportunity to survive with adequate availability of consumption items. Negative externalities, which are thrust on some sections of society by the growing income of other sections, should also be suitably countered. The conventional definition of sustainable development is "*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*" (*Our Common Future*, Brundtland Report, 1987). This paper examines that aspect of development whereby one's income growth adversely affects others' consumption, and in that context, defines sustainable development as "*development that meets the needs of the presently prospering people without compromising the ability of persons with stagnant income to meet their own needs*". We use a simple theoretical model to show how an essential item, such as rice, may register a decline in production because of growth in the global economy, thus threatening the economic sustainability of more vulnerable sections of society.

The abovementioned issue assumes significance given the unprecedented growth of the global economy between 2003 and 2007, prior to the slowdown accompanying the global financial crisis (World Bank web sites). Even so, India and China, both enormous, less developed economies, registered high growth rates even after the global melt down (World Bank). Nor was growth confined exclusively to these two countries. All the less developed economies of the world, including countries in sub-Saharan Africa achieved growth rates of 5% plus during 2003–07. The changes in demand patterns following this