

# Research Proposal

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## Research Proposal for the final project by Emilia Sicari and Rafael Lopez V.

This is the research proposal for the final project by Emilia Sicari and Rafael Lopez V for the course Collaborative Social Science Data Analysis at Hertie School of Governance.

## Introduction

(relations between growth, inequality, public services and transports as a way to reduce inequality. relationship between inequality and luxury consumption)

In the last decades, the increase in income inequality has raised growing concern. In 2013 inequality and lack of mobility were defined as “the challenge of our time” by President Obama and one year later Pope Francis condemned the global “economy of exclusion”. In fact, income inequality is not only a problem of developed economies, where the gap between rich and poor is at highest levels in decades, but also in emerging economies, experiencing more mixed trends. In fact, all over access we find pervasive disparities (Dabla-Norris E., Kochhar, K., Suphaphiphat, N., Ricka, F. et alia, 2015).

## Research question, hypotheses and justification

The aim of our work is to investigate to which extent the rise in inequality caused by economic growth affects the purchase of luxury goods, using the case study of Singapore. The hypotheses that we want to test throughout our analysis are the following:

H1 - economic growth increases inequality

H2 - inequality reduces economic growth

H3 - public services reduce inequality, thus spurring economic growth

H4 - the rise in inequality caused by economic growth leads people on the higher social strata to increase their purchases of luxury goods, to show their status.

JUSTIFICATION....

## Literature review

The description of the link between economic growth and inequality requires some preliminary definitions. Inequality indicates differences in income, consumption or wealth associated with social welfare. Income is widely defined as the amount of money in a given period of time that an individual can spend in consumption without altering the value of their wealth. Economic growth is the rise GDP and GDP in per capita, which is usually considered function of the level of savings and investment. Finally, income distribution is the amount of income that individuals receive in a given society. There are two concepts attached to income distribution that can be found in the literature: functional and size distribution. The functional approach how total income is distributed between land, labour and capital. Instead, size distribution shows how much income is received by individuals (or households) (Gallo, 2002).

The relations between growth and inequality is bilateral. On the one hand, it is widely recognized that a rise in income inequality, results in a fall in economic growth. According to OECD (2014), income inequality has a negative and statistically significant impact on medium-term growth: rising inequality by 3 Gini points – the average in OECD countries over the past two decades – would drag down economic growth by 0.35% per year for 25 years, causing a cumulated loss in GDP at the end of the period amounting to 8.5%. There are several reasons explaining this causal relation. First, income inequality triggers political instability, which, in turn, tends to reduce investment and - consequently - economic growth. Moreover, disparities in income distribution encourage poor people to undertake rent-seeking or illegal activities threatening property rights, and that drives down investment too (Alesina, Perotti, 1996). In addition, inequality reduces the capacity of poorer members of the society to invest in education – thus hampering social mobility and skill development – (Cingano, 2014) and reduces social consensus required to adjust shocks and sustain growth. Nevertheless, all those effects may be non linear: increases in inequality from low levels provides growth enhancing incentives, while increases past some point encourage rent-seeking and lower growth (Ostry, J. D., Berg A., Tsangarides, G. C., 2014). Finally, in highly unequal context, the majority of the voters - who are usually poor - ask for redistributive policies, which decrease the after-tax marginal product of capital, hence lowering the rate of accumulation and driving down growth (Alesina, Perotti 1996). Nevertheless, it is worth noting that redistribution policies may also positively affect growth, by reducing tensions and incentivizing productive activities and capital accumulation. Yet, the net effect of redistributive policies on growth has to weigh the costs of distortionary taxation against the benefits of reduced social tensions. More broadly, taxation may not be inherently detrimental to growth, as long as it reduces tax expenditure or loopholes that benefit the rich, increases public investment through progressive taxation or social insurance spending on welfare favouring poor people (Ostry, J. D., Berg A., Tsangarides, G. C., 2014).

On the other hand, economic growth may produce a rise in income inequality, leading to social tensions and political discontent that jeopardize the wellbeing of society (Gallo, C., 2002). According to the inverted U hypothesis (Kuznets, 1955, p. 18), there is “a long swing in the inequality characterizing the secular income structure: widening in the early phases of economic growth, when the transition from the preindustrial to the industrial civilization was most rapid; becoming stabilized for a while; and then narrowing in the later phases”. There are two factors explaining the rise in income inequality. First, the concentration of savings in the hands of the upper social classes leads to higher amount of income for them and their descendants. Second, increase in the urban share of the population resulting from economic growth is assumed to be more unequal than rural population, whose income is lower than the urban one. Hence, this gap in relative mean incomes tends to widen as a result of a more rapid growth of the per capita productivity in economic urban activities than in agriculture. However, such negative effects of economic growth only hold in the short run, since in the long run this trend tends to reverse due to government redistribution policies and other exogenous factors (the decrease in the proportion of rich families and immigration entering at the lower income levels). Moreover,

this tendency toward increasing inequality is reversed when all the surplus labour is absorbed into modern sector employment, becoming a scarce factor of production. Therefore, further growth, implying an increase in labour demand, will push the wages up, thus levelling inequality. However, despite the relation between economic growth and inequality has been widely investigated in the literature, no definite causal relation has been found that allows generalizing the ways in which economic growth affects income inequality. Instead, empirical evidence shows that the impact of economic growth on income distribution depends more on the way in which growth is pursued than on the level of per capita income or the rate of growth (Gallo, 2002).

Income inequality depends on policies and institutions. Particularly, policies have to target social strata earning the lowest incomes, through anti poverty programmes, cash transfers, job-related training and education, and access to public services (Cingano, 2014). Particularly, public services mitigate the impact on uneven distribution of income, by endowing the poorest strata with ‘virtual income’. For instance, in OECD countries public services are worth the 76% of the net income of the poorest groups and just 14% of the richest and they are considered to reduce inequality by an average on 20%. However, in order to be effective, they must be delivered for free or provide user fees granting accessibility to the lower classes (Seery, 2014) (for example, they have to be means-tested). In fact, public services like education, health care, housing and elderly care activate indirect flows that affect household’s consumption possibilities and their capacity to attend their needs, thus affecting the distribution of resources across households (Verbist, Förster, Vaalavuo, 2014)

A part from the already mentioned public services, even public transports affect income distribution and the standard of living of households and individuals. For example, subsidies on public transport make mobility more affordable to low income groups (Verbist, Förster, Vaalavuo, 2014) As long as public transports grant the opportunity to get key services at reasonable cost, in reasonable time, with reasonable ease, they can reduce income disparity and social exclusion by easing access to job opportunities, learning, health care, food, and social, cultural and sporting activities. Moreover, they also reduce the impact of traffic on deprived communities. Therefore, distributive effects of public transports can be either direct – the reduction in the financial cost of mobility – or indirect – the increase in opportunities of the beneficiaries, especially with regards to the labour market. Many studies find that public transport subsidies appear to make the poorest better off, though there is variation by mode of transportation (e.g. bus travel subsidies turned out be more pro-poor than those for rail transport), by geographical location (Lewis, 2011).

A link between improved transport and diminished regional disparities in income and well-being is evident in both emerging and developed economies, but the relative effectiveness of improvements in mobility to reduce poverty depends on the degree to which a society is already developed (Lewis, 2011).

## **Case study: to which extent the rise in inequality caused by economic growth affects the purchase of luxury goods in Singapore?**

### **Data and methodology (including statistical methods)**

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