

MSc EBA with concentration in Applied Economics and Finance (AEF)

Master Thesis

Income inequality and its effect on economic growth and welfare

Is income inequality so bad after all?

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1 Abstract

Income inequality has a negative connotation attributed to it which empirical research, for the least, does not support. The aim of this paper was to evaluate the legitimacy of such a negative perception of income inequality by summarising findings of relevant academic literature in the field and identifying any general patterns between income disparities and economic development, which would confirm or deny the negative impact income inequality is claimed to have on economies and societies within them.

The research was primarily focused on evaluating the relationship between income inequality and economic growth, while the evaluation of the relationship between income inequality and individual happiness also took place in order to form a full scaled understanding of the impact income disparities have. This way we tried to answer our research question of whether income inequality is so bad after all? Which answer is – no. Our research suggests that income inequality does not have as negative an impact as it is being portrayed, quite oppositely, a reasonable amount of income disparities increase productivity of economies, in turn raising their competitiveness in the global market place.

2 Introduction

Income inequality has become a widely debated topic over the past two centuries. Since the boomed economic growth all over the world and the emergence of China's economy, income inequality levels have been steadily worsening over the globe. After the global financial crisis has hit the world economy in 2008 and the growth rate slowed dramatically, socio-economic problems such as high unemployment rate became the focus of governments' policies. At this point, income inequality started to be perceived as one of the socio-economic concerns needing improvement. Though improving income inequality has been seen as one of the duties of governments' already before the crisis (Walker 2007), the main body of literature analysing this phenomenon and the government role in tackling it has emerged after the great recession. Researchers looked at the possible impact economic growth has on widening income disparities, the impact income disparities have on economic development, they looked at factors presumably playing a role in the development of either a positive or a negative relationship between the two, the possible channels income inequality could be impacting growth through, the impact this socio-economic situation has on individual happiness, and other.

Empirical studies however did not reach a consensus regarding the impact of income inequality on economic growth due to contradicting findings deduced from the same theoretical transition mechanisms applied to different samples using various research designs (Bjørnskov 2008). A number of methodological problems arise when looking at patterns of income distribution: (1) information is absent in many world countries, (2) concepts defining comparable income are complex, (3) it is difficult to take income mobility, age structure, cultural and religious values and other into consideration, and (4) a single indicator of distributional inequality in income or expenditures is lacking (Walker 2007).

The type of data, the inconsistent nature of inequality measures, the type of inequality index, the econometric method, the model specification, the set of countries considered

and their degree of development – all creates ambiguity in assessing the relationship between income inequality and economic growth (Marrero, Rodríguez 2013). However, even though empirical findings did not point any one direction, the general notion of income inequality is rather negative in societies. Therefore a question arises, why income inequality is being perceived so negatively? Can it be that this phenomenon is being blamed for a crime it did not commit? In this paper we look at the existing evidence for and against the negative impact income inequality presumably has on economic growth to confirm or reject such claims, referring to our research question: *Is income inequality so bad after all?*

Our research will be based on summarizing findings of academic papers that have investigated the impact income inequality has on economic growth, with the aim of identifying whether there is a consensus on at least any general patterns between the two variables. The impact income inequality has on individual well-being will also be looked at, because from a government perspective economic growth is only important as a mean to improve its countries citizens' standard of living (Walker 2007), and thus, does not answer the question whether income inequality is bad on its own without also considering the impact on the level of happiness of that country's citizens.

Thus, the paper is structured as follows. The subsequent section will be divided into 2 parts: the first one will outline the findings of the impact income inequality has on economic development and the second one will outline the impact it has on individual wellbeing. A special case of Chinas successful development model and the consequential life satisfaction of its citizens will be considered in both parts respectively. This will be followed by a discussion of the findings where we will summarise the general patterns of the impact income disparities have on economic development and suggest an optimal policy mix for successful long term growth. We will also analyse a specific case of Chinas development to see if there is alignment between empirically derived general patterns and a real life example of successful development patterns. Lastly, we will conclude.

3 Impact on Economic growth

It is recognised that with rising incomes the income gap between rich and poor simultaneously increases. As state policy is not only directed at increasing incomes and standards of living, but also at decreasing inequalities and the level of poverty in societies, governments are very much focused on the relationship between incomes and economic growth (Walker 2007). In research this relationship however often is not straight forward. Global empirical evidence presented by Walker (2007) shows that there is no clear relationship between income inequality and economic growth, but rather that one must allow for country specific circumstances and non-economic factors in order to detect any dependencies.

In this section we will try to understand the role income inequality plays in economic development by looking at: the initial and the dominating theories in the field, channels through which income inequality influences economic development, the role and the impact of the government, the difference initial level of income inequality makes on countries' development patterns, and lastly, we will look at the case study of Chinas successful development and the role different factors and country specifics played in it in search of reconfirming the before outlined findings.

3.1 Main Theories

In this section we will start by outlining and describing four main initial theories (the Classical, Neoclassical, Modern and Unified) which are a conceptual foundation researchers in the field have been building upon. Then we will move on to briefly touching upon the Kuznets inverted U relationship, broadly used in the literature, the main four macroeconomic relations (credit market imperfections, political economy, social unrest and saving rates), and the widely debated equity-efficiency trade off.

3.1.1 Classical, Neoclassical, Modern and Unified approaches

Major transformations in understanding the relationship between income inequality and economic growth took place over the last century. The main initial theories of Classical, Neoclassical, Modern and Unified approaches emerged in search of understanding the relation between income inequality and economic development.

Initially, Classical economists developed a theory based on economic growth being stimulated by capital accumulation. As individual propensity to save is highest in rich households due to surplus of funds after satisfying basic human needs, accumulation of capital enables individuals to set funds aside for future investment. On the other hand the poor have a tendency of spending their wealth on common consumption goods without any surplus funds left to save for later to invest. Following from these consumption patterns, income inequality was seen to benefit economic development in a way that the accumulated savings later could be used for investment in some sort of economic activity, boosting the growth of the economy as a whole. Thus, classical economists believed that the greater the inequality the more funds could potentially be saved for catalysing the growth process (Oded 2011). This hypothesis however been rejected by the Neoclassical theory, where the relation between income inequality and economic growth was simply seen as capturing the causation effect of economic development to income distribution, and thus, being generally unsuitable for macroeconomic analysis (Oded 2011).

The notion of the relation between income inequality and economic growth changed once again a few decades ago where Galor and Zeira inspired the origination of the Modern perspective. The Modern approach was based on their empirical research focused on the effect of income inequality on growth, but with a distinction made between the short and the long term growth. More specifically they looked at patterns of investment in human capital in the presence of market imperfections and concluded that not only income inequality *has* a short term effect on economic development, but also a *negative* long term impact on individuals' ability to invest in human capital (Galor, Zeira 1993).

The negative impact was found to manifest through two major channels: the credit market imperfection and the political economy (Oded 2011). In the presence of credit market imperfections individuals' ability to borrow in a given society is dependent on their level of income and assets, which in an unequal society means unequal opportunities to invest (Barro 2000). If in a poor and financially unequal country in order to acquire education one needs to pay tuition fees, access to education becomes restricted for low income families, which means that worse endowed individuals do not get the same opportunities to accumulate human capital as do the better endowed agents. Thus, in the presence of credit market imperfections the short term outcome of income inequality in a given society is retarded economic development due to inability of poor individuals and households to accumulate human capital which is essential for growth in the near steady state of economic development. It has to be noted though, that the sign of the effect of income inequality, being positive or negative, depends on a country's level of income (Oded 2011), because if tuition fees, mortgage down payments, etc. are insignificant enough for and can be met by all individuals and households, the credit market imperfections do not restrict access to education and investment, and thus, does not slow economic growth. However, if the general income in a country is low, its distribution is unequal and credit market imperfections are present, the long term outlook of income inequality's impact on economic development will be negative.

The reason for a negative long term relationship is the 'generational' inability of human capital accumulation by the poor, as when individuals neither can acquire education for themselves nor provide such for their children, odds are that the mean income in that generation will not increase. As unskilled workers' have limited occupational opportunities, the likelihood that the poor would have the opportunity to earn high enough wages to save up and educate their children are thin, keeping generations stuck under same social status. On the other hand, the rich have all the opportunities to stay as rich or become richer, as not even they have the funds to educate themselves and their children, and thus, get the well-paid jobs, but with a growing economy and increasing requirements for

technological skills in the job market, earn higher salaries as a consequence of increasing demand for skilled labour due to increased use of technology (Galor, Zeira 1993). Thus, due to hindrance of social mobility income inequality has a negative long term effect on economic development in poor countries in the presence of credit market imperfections.

The political economy channel is another way income inequality can hinder economic development according to modern economists. Majority of citizens are poor in a society where income gaps are wide, as with a limited pie and some individuals needing to have accumulated significantly more wealth than others to create wide inequality gaps, only a small group of citizens can be exclusively rich, leaving the rest of the society extremely poor. In such social setting, the broad society is likely to be requesting appropriation of redistributive policies from the government, which, if not ruled by social elite, would impose progressive taxes and use the generated funds for redistribution. The level of investment suffers in such situation through two channels: (1) the rich would lose the incentive to work hard and accumulate capital as their earnings would be progressively taxed, meaning that the more they would earn, the bigger share of those earnings would they need to pay in taxes, and thus, with lower earnings the rich would have lower savings and consequently, the level of their investment would also decline, while (2) the level of investment from the government side would also be minimised, as it would be redistributing its tax generated funds instead of investing them. Thus, in the presence of income inequality and the consequential redistribution, level of investment in physical and human capital would suffer resulting in a reduced economic growth rate.

It should be noted though that empirical evidence is more consistent with an opposing theory of social elite having enough power to influence political decision making, and thus, in the presence of severe income inequalities, hindering implementation of efficient redistribution and progressive taxation. The theory states that with enough political influence the better endowed agents would try to preserve the high level of income inequality in order to preserve their superior position (Oded 2011). Such stagnation would

however also reduce the growth rate, not in the short, but in the long run, as investment would be plentiful only for the early stage of growth; long run economic growth would plateau reaching the near steady state, as with high degree of income inequality human capital accumulation would be handicapped coming to the near steady state of economic development.

The Unified theory as the name implies has unified the assumptions of the classical and the modern approaches by making a distinction between physical and human capital accumulation. In preindustrial times wealth (physical capital) accumulation was the key to economic growth, as the propensity to save and then invest increases with increasing wealth, however, during industrialization human capital accumulation became the driver of growth due to the change in preference from unskilled to skilled labour. It follows then that the classical theory describes the beneficial effects of income inequality on growth when physical capital is supporting the prime stage of growth, while industrialisation and urbanisation, being characteristics of the near steady stage of development, creates economic conditions where income *equality* is key, as the greater speed of both industrialisation and growth can be achieved with the wider human capital spread in the society getting closer to the near steady state of development when credit constraints are largely binding (Oded 2011).

However, in objection to the notion of income inequality being a necessity in the early stage of development, international capital inflows and skill-based technology adoption should be considered. The positive income inequality's impact on economic development in the early stage would be positive to a lesser extent in the presence of (1) international capital inflows, as then the foreign direct investment instead of local wealth accumulation would stimulate the physical capital accumulation, and (2) skill-biased technology adoption, as increased return on human capital through increased demand for skilled labour would further promote equality and growth in the early stage of development (Oded 2011). Thus, though the Unified theory supports the Classical theory's notion of

income inequality being beneficial to grow in the early stage of development, international capital inflows and skill-based technology adoption would marginalise the validity of such a notion.

3.1.2 Kuznets inverted U

Kuznets (1955) inverted U relationship is broadly considered in research relating to income inequality (Kuznets 1955). It, similarly to the Unified theory, builds on an assumption that the relationship between income inequality and economic growth is not linear, meaning that a clear distinction has to be made between the effect of income inequality in the short and in the long run (Barro 2000), as the sign (positive or negative) of income inequality's impact on growth is subject to change over time, or more specifically, over different stages of economic growth.

Over the course of economic development human and capital resources first support the agricultural and then shift to the industrial development. As jobs in the industry pay better due to increased complexity of work, income of migrants rises, in turn raising the level of overall income inequality. With more people migrating the number of these higher income earners rises in industrial / urban sectors, creating the relation between output and extent of inequality positive. Over the course of economic development the urban sector expands shrinking the agricultural one, and, with decreasing labour force, relative wages in the agricultural sector start to rise reducing the overall level of income inequality. This way income inequality starts decreasing again in later stages of development. Kuznets used an inverted U to depict the initial rise and a preceding fall of income inequality in a developing economy (Barro 2000). Though his theory was broadly accepted, subsequent work suggests that the Kuznets curve has explanatory power in cross sectional analyses for a given period of time, but does not explain the relation between income inequality across countries or over time (Barro 2000), meaning that there must be more to the relation between income inequality and economic development than labour migration in different stages of economic development.

Thus the main differences between the Unified theory and the Inverted U relationship is the time period when income inequality is suggested to be rising or falling in order to remain positively affecting economic development, and the explanatory nature of the 2 theories. By explanatory nature I mean that it seems as if the Kuznets curve only describes the so understood natural cycle of the changing level of income inequality over a course of a country's development, which is perceived as a given to be low in the early stage of development, rise due to industrialisation caused labour migration and finally fall again due to the same labour migration reaching a certain threshold. While the Unified theory provides more of a suggestion of which levels of income inequality are most beneficial in which stages of economic development. This difference in explanatory nature could maybe explain why the Inverted U relationship is not robust in studies across countries and over time.

3.1.3 Macroeconomic relations

Substantial literature analyses macroeconomic relations between growth and income inequality, which can be classified in to four main categories: credit market imperfections, political economy, social unrest, and saving rates (Barro 2000). Each of these channels has a different relation with income inequality, meaning that while either presence or absence of credit market imperfections changes the outcome of the same level of income inequality on economic growth in poor countries, saving rate macroeconomic channel describes how income inequality (high saving rates) and income equality (low saving rates) affects the development of a poor economy in the presence of credit market imperfections. Social unrest channel on the other hand depicts what social manifestation income inequality could summon and how such could affect the productivity of an economy, and consequently, the growth rate, while the political economy channel shows how income inequality can influence government policy choices, and thus, how the strength and the direction of the government can influence the development pattern of its country's economy.

3.1.3.1 Credit market imperfections

As mentioned above when explaining the theory of the Modern perspective, in the presence of credit market imperfections individuals' ability to borrow in a given society is dependent on their level of income and assets, which, in unequal societies, mean unequal opportunities to invest. In the early stages of development, if the country is poor, credit market imperfections do not slow growth, as capital accumulation is optimised when wealth is accumulated in few hands. However, in the near steady state of development credit market imperfections would reduce growth in poor countries if wealth redistribution in those countries would not be taking place, as then the poor would not be able to invest in human capital, which accumulation in societies is detrimental for growth in later stages. Though, if wealth redistribution would be taking place, credit market imperfections would benefit the growth process due to increased productivity of investments, as both the rich and the poor would be investing in human capital, and higher level of growth can only be achieved with higher levels of investment. However, in the case of set up costs of entrepreneurial and other growth enhancing activities would be larger than the median income, redistribution from rich to poor would result in reduction in overall investment, as redistribution, though bringing the poor closer to having the ability to invest, would not provide them with quite sufficient enough funds to do so, and thus, would retard the economic growth rate (Barro 2000).

In any scenario, the relation between income inequality and economic growth would be more pronounced in poor rather than rich economies, due to weaker institutions in underdeveloped countries (Barro 2000) as, at the end of the day, it is institutions who decide when to redistribute and to what extent. One should also remember the fact that the poor in rich economies do not encounter credit market constraints due to a high enough level of income enabling them to participate in investment activities, which is the key for economic growth.

3.1.3.2 Political economy

Higher levels of income inequality make the broad society rise up and require a more equal income distribution. In the presence of a strong government, redistributive policies get put in place, which on the one hand improve the social situation of the poor, but on the other distorts economic decisions in that society. The distorted economic decisions would manifest in the discouraged work effort of the rich due to redistributive transfer payments and associated tax finance, depressed investment and therefore, decreased economic growth. However, even if redistributive policies would not be put in place due to the rich buying off the legislators to prevent such from happening, funds used for bribes would create deep rooted political corruption, which in the long run would end up consuming resources that would alternatively have gone to investments in the economy. Decreased capacity to invest due to redistribution or corruption would eventually depress economic development (Barro 2000). Because the political economy channel is concerned with defining the optimal government policy regarding income inequality and economic growth, we will talk more about it later in the section, in 'the role of the government' part.

3.1.3.3 Social unrest

Social unrest macroeconomic channel is somewhat related to the Political economy one, as socio-political stability typically can be improved through a more efficient redistribution of wealth in a society (Oded 2011). Social unrest creates a situation where the poor engage in crime and riot against the government. It can often times be perceived as a desperate search for improvements of persisting social problems, such as a diminished quality of life due to a highly unequal income distribution. Social unrest is a waste of resources of the poor citizens' labour hours that optimally could have been utilized performing productive labour, and this way improving the economic growth rate. Moreover, investment of the rest of the society diminishes, as an unstable social situation in a country deters individuals, who feel their property rights to be threatened, from investing. This way

income inequality through a social unrest channel would depress economic growth by decreasing the level of productivity in an economy (Barro 2000).

3.1.3.4 Saving rates

Some economists suggest that the saving rate rises with accumulation of wealth without directly translating in to higher investment, and therefore accumulation of wealth negatively affects economic growth through depressed investment caused by unproductive accumulation of those funds. The theory is that the wealth of the rich continues to be accumulated in a form of savings taking those funds from alternatively circulating in the market and increasing the pie. However, in the presence of significant start-up costs, accumulation of assets would, by contrary, be beneficial for the economy, as investments without having any savings would not be possible (Barro 2000).

3.1.4 Equity – efficiency trade off

The equity-efficiency trade-off has long been debated with regards to abolishing income inequality with the help of redistribution of public funds acquired through progressive taxation. Economists do not seem to agree whether wealth accumulation (increased equity) increases or decreases investment (market efficiency). Several theories prevail, suggesting income inequality having a positive, a negative and also a neutral effect on economic growth. We will explain every each of them.

Incomplete markets' theory claims that income inequality can only affect economic growth through reduced level of productivity when markets fail to serve potential investment opportunities by turning down loans which otherwise would be profitable (Stevans 2012). Such can happen when, in the presence of credit market constrains, low income entrepreneurs try to start a business but cannot pursue their economic activity without an initial loan, as due to their low income such entrepreneurs do not have the needed capital at hand, but the loans are not granted to them due to the high risk associated with their low income. Therefore, wealth redistribution if imposed, would improve the situation and

the efficiency of the markets, or at least it would have such effect following the incomplete market theory.

On the other side of the spectrum it is being argued that the political process can also negatively impact efficiency and thus, economic growth through income inequality in the presence of redistributive policies. That is so as what redistribution does is it reduces investment by the rich, through either progressive or simply high taxation, reducing return on capital on their investments (Stevans 2012). Thus, in the presence of wealth redistribution the rich might get discouraged to work hard and invest due to a relatively low return on capital on their investments caused by high taxation, and thus, such correction for credit market constraints might worsen the overall efficiency of the economy.

However, the theory that the rich would invest more if the tax rate on their income was reduced could be challenged by the fact that decisions of savers and investors are not inter-related, meaning that the higher savings rate of the rich does not directly mean higher degree of investment in the economy. Such correlation is just a possibility (Stevans 2012). Following this argument one could say that income inequality and redistribution for that matter does not influence the equity-efficiency nexus of markets, and thus, do not have an impact on economic growth, or at least not through investment.

Stevans (2012) tried to test for the three scenarios and considered 3 possible causal relationships between income inequality and growth: (1) equity-efficiency view where inequality positively affects growth due to incentives for the well-endowed agents to work hard and invest as the tax rate and extent of redistribution is not high, (2) incomplete markets and political process view suggesting equality to be the key for faster growth in the presence of market imperfections, and (3) no clear relationship, as savings and investment are not directly related (Stevans 2012). After his analysis Stevans concludes that based on the majority of the empirical evidence inequality is most likely to be neutral in relation to economic development. Some data, however, suggest that income inequality

does have an effect on economic development, and that the relationship is negative due to market failure in the presence of credit market constraints.

It is thus not clear what effect income inequality has on economic development from equity-efficiency standpoint, though it could be argued that though the relationship is not crystal clear, it leans towards income inequality being more negative than positive to economic growth, and thus, state policies should not shy away from income redistribution (Stevans 2012).

3.2 Channels through which income inequality influences economic growth

Barro (2000) suggest that income inequality does not have a direct impact on economic development, but is operating primarily through 3 channels: education, fertility and investment. Walker (2007) further argues that based on empirical data and research, income distribution and per capita income do not have a clear pattern, but that other factors must then have superior importance (Walker 2007). As there is no simple and symmetric relationship between income inequality and economic growth, we will look deeper into the most prominent channels through which income inequality takes its toll on the rate and the extent of economic development. The ones we will analyse include: the degree of openness of the economy to the rest of the world, investment, agglomeration, concentration of ownership of land and other resources, women in the labour force, education and internet adoption.

3.2.1 Degree of openness of the economy

Openness of an economy to the outside world means more foreign direct investment (FDI) which directly translates to accelerated growth, and thus, is generally beneficial for economic development. Chaudhry and Garner (2013) suggest that countries that are more open to trade, immigration and exchange of information tend to compare themselves with their partner countries and use it as stimuli to improve in different areas, which in turn stimulates growth (Chaudhry, Garner 2013). However, in unequal societies, individuals

who are relatively better off would benefit the most from international openness as they have the most entrepreneurial capacity and education, which enable them to best exploit such opportunities. The poor on the other hand do not benefit from FDI as investments usually do not reach them, and for this reason with the rich getting richer and the poor staying at their current level of income, the gap between incomes grows wider the more FDI a country receives.

For very poor societies the increasing income gap caused by openness of their economies to foreign investment is ever more pronounced, as the social elite is already smaller and richer to begin with. With a concentrated pool of individuals exploiting the benefits of FDI, their income grows faster than it would if there were more of less rich top income earners, as is the case in less unequal societies. For this reason income gaps get wider the poorer the country is (Barro 2000).

However, even though economies benefit from openness, the balance of income distribution generally suffers in those economies, more so in countries with higher initial inequality. Governments, trying to correct for the widening gap and to compensate for the increased riskiness of the economy caused by greater exposure to external shocks, spend more on social insurance through welfare redistribution. That is, open economies do more welfare spending to compensate for the increased riskiness of the economy to external shocks and the worsened income imbalance (Muinelo-Gallo, Roca-Sagalés 2013). Moreover, the more open the country is the bigger the governmental apparatus it needs to offset the impact of external shocks, and thus, the more fluctuations in fiscal spending takes place (Woo 2011).

In sum, openness of the economy to FDI increases demand and thus stimulates economic growth, making individuals who receive it better off. However, the country becomes more vulnerable to external shocks and thus, needs to spend more on social security to compensate its citizens for the additional risk. Increased social security is also needed to offset the worsened income disparities between the rich and the poor in the presence of

FDI. Thus, income inequality affects growth through the degree of openness of the economy by creating the need for heavy redistributive policies in the future stage of development of the country, that being in either the near steady or the steady stage, though not necessarily creating any negative short term effects.

3.2.2 Investment

Investment is widely seen as an indirect channel of the relation between income inequality and economic growth. (Barro 2000). In most literature terms 'investment' and 'economic growth' are used on even terms, as investment is seen to be the necessary condition for growth, and thus, the impact of income inequality on economic growth is in most instances being looked at by researching the impact of income inequality on the change in investment, rent seeking and entrepreneurial activity. Thus, a clear cut, one side outcome of the relationship between income inequality and economic development through investment cannot be provided, as it would be somewhat equivalent to answering the question whether income inequality is or is not beneficial for growth. A question, which we are still in search for the answer to.

3.2.3 Agglomeration

The net effect of agglomeration on economic development depends on the stage of development a country is in, the general income level and the income distribution of the country.

Due to labour and capital concentration agglomeration is beneficial to economic growth in early stages of development, while diseconomies of congestion are what follow of such concentration in the steady stage. In the early stages of industrialisation when cities are being formed human capital concentration is essential for productivity and growth of such settlements. The more concentration of cheap labour force happens, the more industrial capitalists flood to those cities to exploit the opportunity to harvest a high return on capital possible because of low labour costs. With more capitalists settling in cities,

demand for labour increases, stimulating urban migration, and so the virtuous circle continues. However, after a certain point when cities become too big with long commutes, crowdedness and shortage of living space, housing prices spike, air pollution increase and the city becomes unattractive for settlement. To compensate for diseconomies of congestion and keep the settlers from emigrating, governments dilute their funds, by investing in those cities, to increase their attractiveness and the general quality of life of the settlers (David Castells-Quintana 2014).

Castells-Quintana and Royuela (2014) argue that there is a strong causal relationship between the process of urbanisation and income inequality. Urban incomes are generally higher than the rural ones, and with more people moving to heavier populated cities, the more investment gets attracted there, and thus, the more those cities grow. The income gap between the city and the country thus persists even when rural wages increase due to labour shortage in the country as a consequence of urban migration in search of higher incomes, because salaries in cities continue to be higher due to a more rapid technological and educational development facilitating growth and income rise (David Castells-Quintana 2014).

However, it could also be argued that income inequality is what initially catalyses the process of agglomeration, and only after cities had been formed and growing, agglomeration causes the income gap between the city and the country to worsen due to a more rapid income level growth in cities, as was mentioned before. Thus, the causal relationship between urbanisation and income inequality suggested by Castells-Quintana and Royuela (2014) is only applicable in later stages of urbanisation, while in the initial stages, the causation is opposite. Therefore, one could argue, that income inequality influences economic development through the channel of agglomeration by initially stimulating the process and creating the rationale for such to happen, as the prospect of higher income is what gets individuals to migrate, and skilled labour earns higher wages in urban areas where there is a demand for it. In other words, if income levels of the city and

of the country would be corresponding, industrialisation would not be possible due to lack of incentives for people to move and in turn, for capitalists and their investment to be attracted. Thus, income inequality stimulates economic growth in early stages of economic development through the process of agglomeration by providing incentives for individuals to migrate and thus create areas with high concentration of human labour resources which then attract investment.

It should be noted though, that both agglomeration and income inequality is beneficial for growth when levels of the two are relatively low, that is, when the concentration of human and capital resources are not yet high. Agglomeration, similarly to income inequality, is beneficial in early stages of economic development as a way to concentrate the accumulation of both human and physical capital, so that the labour intensive capitalism could growth the economy. If income inequality is initially high, allowing for agglomeration decreases the growth rate, as after reaching a certain point accumulation of human and capital resources gets too concentrated in the hands of a small number of better endowed agents, who then, with the intention to maintain their power, take actions that slow economic development, which, to mention a few, would be underinvestment and hindrance for the masses to attain education.

The same logic can be applied to agglomeration slowing growth in countries with high income levels, as such countries are already in the later stage of economic development, and thus do not need to focus on concentrating human and physical capital which agglomeration provides. But rather, the more developed countries need to concentrate on human capital accumulation in the broad society, most directly achievable through making education easily accessible for both, rural and urban citizens. Thus, agglomeration is beneficial for growth only when income levels, inequality in income levels and the urban concentration in a country are low, which means that rich countries with high degree of income inequality do not benefit from agglomeration, as they have already past the stage of development where it is beneficial (David Castells-Quintana 2014).

Additionally, a distinction between the impacts of different levels of agglomeration on growth in countries of different stages of economic development needs to be made. Urbanisation, meaning creation of small to medium sized cities, is beneficial for countries in all stages of development. This way investment can be attracted and the rationale for establishing educational institutions is present in many locations in the country, improving income levels and educational attainment in the country as a whole - decreasing urban/rural income gaps. Urban concentration on the other hand, meaning creation of big cities, can only be beneficial in poor countries with low levels of income inequalities. Such is so, because poor underdeveloped countries need to concentrate physical and human capital to attract capitalists to invest in them and industrialise the country, while developed economies cannot benefit from additional heavy resource concentration as nationally spread human capital accumulation is what they need to increase, or at least sustain, their growth rate (David Castells-Quintana 2014). Thus, in terms of policy implications, to reap the benefits of agglomeration governments of poor rural countries with low levels of income inequalities can promote both, urbanisation and urban concentration, as their primary aim is to concentrate human and capital resources making them easily exploitable by capitalists, while governments of rich economies should only promote urbanisation, as such help even-out income gaps between urban and rural areas as well as make education more accessible to everybody (David Castells-Quintana 2014).

3.2.4 Concentration of land and other natural resources

Income inequality though concentration of land and other natural resources channel strongly influences the pattern of economic development. On the one hand, concentration of resources is necessary in the initial stage of economic growth, though when moving on to industrialisation, resource mobility is as crucial as resource accumulation previously was, and if those resources were concentrated by few powerful individuals who can influence politics in the presence of weak local government, resource mobility might very

well never happen due to hindrance by those powerful individuals, and thus, economic development can stagnate indefinitely.

In the preindustrial stage of economic development, where physical capital accumulation is what drives growth, the wealthy, or in other words, the better endowed agents, have the interest of keeping the labour force in their current place, as development in this stage is highly labour intensive. However, in early stages of industrialisation the better endowed agents tend to be hostile to change, meaning that if they are in the position to influence institutional changes and policies, which can be the case in the presence of a weak governmental apparatus, they will try to hinder labour mobility by hindering the promotion of human capital accumulation, and thus, the creation of more wealth in the country (Oded 2011). A conflict here emerges between capitalists, promoting education and labour mobility, and land owners, hindering mobility and human capital accumulation. Capitalist elite supports policies promoting public education, as human capital is what fosters growth in the urban setting, while human capital accumulation means mobility of landowners' labour force to industrial districts, diminishing their wealth, and thus, rural elite supports policies that deprive masses of education (Oded 2011). In countries where land owners were influential enough to hinder public education formation, which lead to human capital formation, labour intensive work force did not get replaced by skill-based individuals, resulting in significantly slowed long term economic development (Oded 2011), being the reason for the uneven development rate in different world countries.

In countries with an initially equal distribution of land and resources educational reforms enabled a more rapid accumulation of human capital among individuals in a society, enabling skill intensive urban labour to fuel economic growth. While in more unequal countries, concentration of wealth, that benefited development in early stages, caused underinvestment in human capital in later stages of development, and with a labour intensive workforce, retarded long term growth (Oded 2011). Brazil is a good example of how a strong political power possessing rural elite can achieve 75% of population to still be

illiterate after 30 years of an instituted educational reform (Oded 2011). This is why different geographical world regions show different rates of development and why income inequality is very persistent in countries with strong oppressive political institutions (Oded 2011).

3.2.5 Ethnic fractionalisation

Casey and Owen (2014) points out that literature focuses on better endowed agents' power being used to prevent market-supporting institutions from developing under income inequality, to retain the privileged positions of the wealthy even though it simultaneously means slower economic development (Casey, Owen 2014). However, they argue that ethnic fractionalisation in the long run has an even stronger negative effect on government institutions' development and provision of public goods, as fractions' struggle prevent joined action against collective problems undercutting productivity of government institutions (Casey, Owen 2014).

Fractionalisation negatively affects the level of income and the degree of school enrolment, while income inequality often has none or a positive impact on these variables. The same applies to the impact on the effectiveness of government institutions. Ethnic fractionalisations is often related to corruption and government bureaucracy used to disadvantage other ethnic groups, to political instability and violence which corrupt government institution are not capable of alleviating, and the effect of fraction inequality to economic growth, as ethnic tension and violence lower income per capita.

Typically income levels are lower in places with a high degree of ethnic inequality, and thus Casey and Owen (2014) suggest that income inequality can only be harmful to growth if occurs among fractions. Their conclusion is that it is not the income inequality that retards growth, but inequality among ethnic groups (Casey, Owen 2014).

However, on the other side of the spectrum ... argues (name from fiscal policy) that

3.2.6 Women in labour force

Income inequality by catalysing industrial development has indirectly fostered economic growth through the women in labour force channel, as with labour migration to urban dwellings the number of new born children decreased due to women joining the labour force. In the early stages of industrialisation men were superior in the job market as labour intensive work force was mostly required, however, in later stages human capital intensive work created demand for educated labour enabling women to join the labour force. Through this process, inequality in gender preference decreased, increasing the supply of labour and fostering economic growth (Oded 2011). Additionally, lower levels of fertility, due to working women, has set the scene for the long term economic development, as the long term development is only possible through human capital accumulation, or in other words, an educated society, which is much easier to achieve with fewer children.

3.2.7 Education

Income inequality primarily affects economic growth through education in near steady and steady stages of development, when physical capital accumulation needs to be replaced by human capital accumulation and human capital accumulation needs to be spread wider in society for continues growth respectively. Income disparities affect economic growth negatively in these stages through education as a channel, though more so in the steady stage than the near steady one, as in the near steady stage of development the better endowed elite can raise the level of educational attainment in the country by acquiring education from private institutions requiring high tuition fees, which is a constraint hindering the poor in doing the same. Thus, only with the introduction of public education does education lower the extent of income inequality in countries, as only then does accumulation of human capital become readily available to all social classes, rather than just to the better endowed elite with sufficient funds to finance educational attainment when credit constraints are largely binding (Oded 2011).

In the beginning of industrialisation education did not play such a significant role in demolishing inequality, because illiterate labour force could control industrial machines by the skills attained through on job training, and thus, earn higher wages, that are closer to those of the rich (Oded 2011). In the second part of industrialisation though, education became paramount to the creation of industrial societies, as technological development in factories and other city workplaces required skilled labour which could not be simply acquired through on job training. Capitalists here insisted governments to take action in provision of public education, if the governments lacked the engagement themselves, that is, as labour productivity was the factor to further increase their profits (Oded 2011).

Even though capitalists promote public education due to their selfish interest in higher return on capital, societies reap the benefits through a more equal distribution of skills, opportunities for social mobility and incomes. Social mobility is actually the most important consequence of high quality of public education, as it compensates for credit market imperfections and allows poor individuals the opportunity to compete with the rich for same job placements, and thus, the same opportunity to earn high incomes in the future.

In summary, public education specifically becomes crucial in the steady state of growth, as though the wealthy could acquire education in the near steady stage which was enough to cover the demand for skilled labour, the only way to drive growth in the steady state is to make education widely available, and in the presence of credit market imperfections this is only possible with government provision of high quality public education.

3.2.8 Internet adoption

Income inequality can also hinder economic development through the internet adoption channel, or in other words, the digital divide. The digital divide is the gap in availability and ability to use Information and Communication Technologies (ICT). It is very pronounced in developing countries with high income inequality, as though technology brings growth

through easy and more cost efficient access to information, in an unequal society only a limited number of people can take advantage of it, and thus, the potential growth is not reached (Noh, Yoo 2008).

There are opinions that ICT increase income inequality through raising wage premium of individuals related to this technology (Acemoglu 2002 as cited in Noh, Yoo 2008), or that income inequality, age and education create a diffusion of the use of ICT, that is, these factors have an impact on the availability and motivation in adopting Information and Communication Technologies (Chinn & Fairlie 2004; Dewan & Riggins 2005 as cited in Noh, Yoo 2008)). Lloyed-Ellis (1999) argues though that introduction of ICT improves income equality because it increases workers' productivity (as cited in Noh, Yoo 2008)).

Though there is no clear consensus of whether ICTs increases or decreases income inequality, we can suggest that ICT adoption stimulates economic growth by increasing productivity of labour, though such effect could be more pronounced if the income inequality created digital divide would not marginalise the effect (Noh, Yoo 2008).

3.3 The role of the government

Government plays an important role in a country's development and, through fiscal policy, can always improve the rate of economic growth indifferently of economic or social circumstances. A strong government formation in the early stage of economic growth can lay the path for a fast-track development that is capable of best exploiting the resources a country has and the situation it is in, in order to reach its full speed and potential. On the other hand, it is not only important what a country's government does policy wise, but also how it is, meaning its ideology and intentions. Pro-poor or pro-rich tendencies, attitude towards dealing with strikes and riots, preference for redistribution or for strengthening of its institutions, individual politicians' selfishness and personal social preferences, etc. are all government traits that influence its policy, while policy in turn has the power to change the rate and the extent of a country's economic development. Thus, the role of the

government is important to discuss when we are searching for an answer of whether income inequality is that bad after all, because the government can both minimise the negative effect and enforce the positive of the before mentioned with correct policy actions.

We will analyse the role of the government by firstly explaining how fiscal policy can be influenced by income inequality, country's citizens' preferences and self-interest of the politicians, we will further expand on the impact of fiscal policy volatility and suggest a recipe for increasing growth while simultaneously reducing income inequality. Secondly, we will shortly touch upon what is needed for policy decisions to be effective, and as the third point we will explain the importance of government ideology and how it can affect policy outcomes. Lastly, strategy for sustained growth will be considered by looking at much debated progressive taxation and its possible outcomes, and by adopting the perspective of government obligation to raise the standard of living of its citizens.

3.3.1 Fiscal policy

Analysing income inequality through a fiscal policy channel allows incorporating political and economic structures in the analysis, where the political structure captures citizens' preferences translated to policy, and the economic structure shows the effectiveness of the implemented policy on economic development (Muinelo-Gallo, Roca-Sagalés 2013).

Income inequality can influence economic performance of a country through the fiscal policy channel by making the fiscal policy volatile and reflective of politicians' self-interest. Societies in countries experiencing high initial income inequality can have many opinions of most optimal government fiscal policies, and in a situation of heterogeneous opinions policy makers might choose to implement policies which serve their self-interests, while harming the overall situation of the country's economy. Such harmful policies might be especially prevalent during good times, when government actions seem more justifiable, creating a deficit for the worse times to come (Woo 2011).

Political instability may also be a reason for fiscal policy volatility, as different politicians are likely to have different personal preferences regarding fiscal spending, and with often changes in governments, fiscal policy is also likely to change often. If such political instability becomes common place, politicians might have a tendency to only execute short term fiscal policy, which means more fiscal spending in good times without saving funds for the downturns (Woo 2011). However, as fiscal adjustments cannot be postponed indefinitely, this might cause high fiscal volatility in the long run (Woo 2011).

It should be noted though, that changes in fiscal policy as a response to changing economic conditions should not be considered volatility and confused with instability instead of adaptability to changing market conditions. Thus, following this logic, only changes in fiscal policy related to changing economic conditions are stabilising, all other kinds of fiscal policy changes are destabilising, and thus, growth slowing (Woo 2011).

Substantial evidence has been found in support for the fiscal volatility and cyclicity being duo to initial income inequality, in turn influencing growth performance. In sum, more unequal societies are more prone to have high fiscal volatility detrimental to growth, where higher level of institutional constraints could improve the situation. The question remains though, what institutional constraints should take place and under what conditions in a country with high income inequality and divided preferences for fiscal policy (Woo 2011).

Distributive government spending could be one of them. Distributive government spending in high income countries reduce income inequality without necessarily harming economic growth, though this depends on the financing of the public spending, while non-distributive government spending, regardless of financing, increases inequality and decreases GDP growth. Also, countries with high percentage of elderly people tend to have more redistributive policies in place due to the importance of the public pension systems (Muinelo-Gallo, Roca-Sagalés 2013). Thus, redistributive policies are imperial for promoting balanced economic development by reducing poverty and income inequality.

Thus it follows, that the smaller the redistribution, the bigger is the pie, but it is also less equally distributed.

The recipe for increasing growth while simultaneously reducing income inequality for developed countries thus is to cut down on non-distributive expenses and continuously execute distributive fiscal policies (Muinelo-Gallo, Roca-Sagalés 2013). As preferences of the rich are far more likely to be reflected in government policies than that of the poor (Chaudhry, Garner 2013), politicians should also be more conscious when making redistributive policy decisions than is the practise today.

In sum, income inequality causes government policy to be volatile which results in macroeconomic volatility, and when the macro economy is volatile, the full potential of economic growth cannot be reached. Thus, the key to improving income inequality through fiscal policy is for a strong and stable government to favour redistributive policy without tailoring it to the wishes of the rich (Woo 2011).

3.3.2 Effectiveness of government policies

Government policies need to be well designed, well targeted and persistent in their application, as effect on changes such as income distribution take part extremely slowly. Distribution policies should also consider cultural and historical circumstances, rather than only the economic variables, because in some instances unwillingness to change might come into picture due to cultural and historical circumstances of high income disparities throughout the country's history (Walker 2007) p.654).

3.3.3 Government ideology

Government ideology influences the relation of income inequality and growth through several channels. Firstly, through redistributive policies, which can be chosen because the majority of voters are poor, and thus, demand for it, or because pro-poor political parties have come into power, as it has been shown by Brautigam (2004) that once pro-poor

political parties come into power, redistributive policies shortly follow (as cited in Chaudhry, Garner 2013), etc. Secondly, income inequality influence economic growth through the way governments solves problems which provoke strikes, riots and social unrest, as in the presence of governments which take harsh measures against such expressions of social opinion, such situations tend to be less frequent, and thus creates more stability in the society facilitating economic development. And thirdly, through government choice to use its funds on either redistribution or institutional improvements, like protection of property rights, as there is rarely enough funds for both. While redistributive policies in some instances can discourage the willingness to invest by the rich because of the diminished return on capital and thus, slow economic development, institutional improvements are crucial for a medium to long term economic development, and thus need not to be neglected by short term policy actions (Bjørnskov 2008).

Thus, government ideology influences government policy choices directed to tackle problems caused by unequal income distribution, and therefore is to be taken into account when evaluating the effect of income inequality on economic growth.

3.3.4 State policy aimed at reducing inequality

3.3.4.1 *Progressive taxes*

There is no clear agreement on how redistribution affects economic development and the level of income inequality. As already mentioned, on the one hand high progressive tax rate is argued to retard economic growth by demotivating the wealthy to work hard and invest, especially in the early stages of development, while on the other hand, it is suggested that redistribution provide the poor the opportunity to participate in economic activities and invest, ultimately outweighing the decreased investment by the rich, and in sum increasing economic growth rate. Others argue thought, that in the presence of high start-up costs, redistribution decreases the growth rate because the poor, though having

more disposable capital, do not get enough to cover for the start-up costs, and thus, the redistributed funds do not get used for investment, consequently retarding growth.

Andrews, Jencks and Leigh (2011) have tested the theory of tickle-down economics (progressive taxes) and found that tax cuts for the top quintile earners would increase economic growth and the prosperity of the overall society due to higher investment and thus, job creation, with a single limitation that process would take 13 years to take effect (as cited in Herzer, Vollmer 2013). Herzers (2013) findings however counter the positive effect found by Andrews, Jencks and Leigh (2011), Herzers (2013) based on his research imply that the outcome of such policy would be negative (Herzer, Vollmer 2013). Aghion and Bolton (1997) had developed a different theory that Herzers (2013) supports, suggesting that the accumulated savings of the top income earner would not create jobs in the presence of tax exemptions for the rich, but instead, wealth accumulation at the top would create the need for the poor to borrow more in order to invest, and this way disincentivise any sort of investment from the worse endowed agents (as cited in Herzer, Vollmer 2013). Following this theory, redistribution would enforce equality of opportunity and accelerate the tickle-down process (Herzer, Vollmer 2013).

Thus in sum, Herzer (2013) finds that the saving induced investment by the rich is a process that takes place if tax cuts are applied to the rich and would increase the growth rate in isolation, however the funds potentially taken from the poor and invested by the rich would not outweigh the human capital accumulation loss, also meaning growth, because of the lowered income of the majority of the population, and thus, the tickle-down process would ultimately slow the growth of a country (Herzer, Vollmer 2013).

Progressive taxes can aid in achieving a more equal income distribution, though it does not necessarily mean accelerated growth not only because potentially decreased private investment, but also because the government funds used for redistribution could potentially have been either used for government investment or for strengthening of its institutions, which are crucial for sustained growth. One of such uses could be improving

the accessibility and quality of public education, which is a prerequisite for maintaining growth after reaching the steady state of economic development (Shin 2012)(Stevans 2012).

Rapid economic growth and income equality can be simultaneously achieved in the early stages of development, though a near steady stage possess a need for a government to prioritise between its policies either aimed at reducing the income gap or at stimulating growth (Shin 2012). Here, the use of progressive taxes is one of the ways governments can influence the future development patterns.

3.3.4.2 Standard of living

The purpose of state policy is to increase incomes and standard of living of the country's citizens (Walker 2007), which can only be achieved through continues growth. This is why sustained economic growth is such a big part of political debate regarding state policy. However, though the state's main aim is to increase the pie and the quality of life, decreasing income inequality and poverty is also part of the agenda (Walker 2007). The question is whether income equality and sustained economic growth can happen simultaneously, so that both, the standard of living and the wellbeing of citizens could be maximised.

Stevans (2012), in the setting of the US, argues that the answer is no, because with low rate of income inequality the standard of living in the US would drop due to decreased entrepreneurial activity and labour force productivity, implying that equality could only be reached through redistribution, leaving the society more equal, though worse off income growth wise (Stevans 2012) p.149).

3.4 Importance of initial level of income inequality

The initial income inequality among countries makes a difference in the use of tax instruments, the size of revenue to raise by the government and its expenditure, which

ultimately influence different countries' development (Woo 2011). In this section we will explain what impact does initial level of income inequality have on future economic growth of domestic economies, the non-monotonous effect income inequality has on poor vs. non-poor economies, the difference social mobility makes on societal acceptance of income inequality in early as well as later stages of growth, and lastly, the relation between poverty and income inequality.

We will start by describing how initial levels of income inequality affect the formation of government institutions, the direction of government policies and the level of redistribution in countries. We will touch upon the notion that income inequality seems to have contradicting effects because of the failure to make the distinction between inequality of opportunity and inequality of effort, as these two types of inequalities have different impact on economic growth rate.

Evidence suggests that urban growth is significantly more pronounced in cities with a big share of particularly low wage earners. It is also the case that in cities with high income inequality, the bottom-end earners get very low wages. Thus it follows that inequality stimulates growth (Wheeler 2004). This phenomenon can be explained by a theory that employers flock to cities with low wages to earn a higher profit from their activities, increasing demand for labour, which translates to growth, which in turn raise wages and decrease the degree of inequality in the long run (Wheeler 2004). Thus, Wheeler (2004) argues that given the empirical evidence from US metropolitan areas, higher initial income inequality is beneficial for employment, population and per capita income growth (Wheeler 2004). That is, the evidence points out to the fact that high inequality causes rapid economic growth. However, after the economy reaches near steady state, the growth rate slows down resulting from the bottom quintile income distribution rise (Wheeler 2004). Such a rise occurs because human capital accumulation through education in cities raises not only the income of the educated, but of the less educated individuals as well (Wheeler 2004).

Chaudhry and Garner (2013) on the other hand suggest that initially high income inequality lead to poor economic governance and because of that, a slowed long term growth (Chaudhry, Garner 2013). They argue that because the powerful rich can influence development of *pro-rich* government institutions which focus on retarding income mobility through social policies, the prospects of economic growth gets compromised. Such happens because the pro rich government opens the economy to less trade and immigration than would otherwise be possible or reasonable to do, in order to keep the competition low. Marginalised competition reached through limited involvement in global affairs then enables the rich to preserve their advantaged position in the country. As a consequence, demand does not get stimulated through foreign investment, lack of competition keeps the productivity levels low, absence of income mobility and thus presence of social unrest leads to lowered investment in the long run, and thus, stagnates economic growth due to lack of stimuli for such over the long term (Chaudhry, Garner 2013).

However, Chaudhry and Garner (2013) finds, in contradiction to Wheeler (2004), that initially less unequal countries develop inclusive institutions which, through their openness and pro-poor social policies, stimulate investment and growth. Meaning that the initial low levels of income inequality translates to increased growth rate over the long run. (Naito 2012) agrees with such findings through the human capital formation perspective. He suggests that initial income inequality lowers the growth rate of human capital accumulation by reducing the size of public policies towards redistribution and accessibility of public education due to pro-rich government agenda, and as a consequence retards long term economic growth (Naito 2012). Woo (2011) also supports equality by arguing that high income inequality makes citizens, as voters, more prone to redistributive policies, which, if implemented, raises taxes and this way leaves less money in the economy to be used for investment, and thus, retards the growth process (Woo 2011).

Woo (2011) stresses as well that there is little evidence supporting the notion that income inequality causes political instability or preference for redistribution (Woo 2011), and thus we need to be careful when evaluating such findings. The relationship is hard to understand because over the short term, inequality might be temporarily affected by fluctuations in the growth rate caused by different economic conditions in the economy, while over the longer term both, growth and inequality, will be influenced by factors like social, geographic and sectorial mobility, international trade, structure of the population and other. Thus, one needs to evaluate domestic economic structures, international economic relationships, and social organisations when suggesting any causal relationships; else empirical findings will remain questionable, and thus, will not provide a grounded recommendation for developing state policy (Walker 2007).

On the other hand, Marrero and Rodriguez (2013) argues that the contradicting findings of the impact of income inequality on growth are present not because of undervaluation of other factors influencing the relationship, but because the distinction fails to be recognised between Inequality of opportunity (IO): race and socioeconomic and cultural background; and inequality of effort (IE): choice of occupation and investment in human capital, work effort (Marrero, Rodríguez 2013). As low income is persistent throughout generations due to capital constrains hindering good quality educational attainment, individuals with low income encounter barriers to, for instance, take credit independent on their ability or talent (Marrero, Rodríguez 2013). Marrero and Rodriguez (2013) argue that IO increases the level of income inequality because of the restrained human capital accumulation due to credit market imperfections, while IE increases income equality, as it incentivises people to work hard and invest in education (Marrero, Rodríguez 2013). Thus policy wise, reducing IO would be the priority as it increases the total accumulated human capital in the society, which then would allow people to invest in entrepreneurial activities for short term growth, and invest in education for the long term nationwide economic development (Marrero, Rodríguez 2013).

3.4.1 Poor vs. non-poor economies

The initial level of income inequality affects the poor and the rich differently as well as it makes a difference whether the impact is being assessed on a poor or a non-poor country. In this paragraph we will discuss the difference between the two sorts of economies.

Oded (2011) suggest that higher inequality in the distribution of income is associated with higher incomes per capita across poor economies, while lower incomes per capita in non-poor economies (Oded 2011), meaning that inequality translates to higher average incomes of a poor economy rather than a rich one. This could be perceived as income inequality is more beneficial for poor economies than for the rich ones. Additionally, the initial distribution of income affects income per capita in both, the short and the long run, where the income per capita in the long run is higher the lower the bequest in the family is (Oded 2011). The latter is due to the fact that when individuals inherit large fortunes their motivation to work hard and contribute to economic development through entrepreneurial activities is diminished. Once an individual has enough financial capacity to take care of its needs, putting effort in acquiring more fortune feels redundant. Research also suggests, that the initial income inequality primarily hurts the poor, as it is for them the credit constraints influence investment decisions (Oded 2011), the rich are primarily only affected on a moral level. Also if education require funds to be acquired, the poor is less likely to change the social status through their lifetimes, or the lifetimes of their children, as due to inability of acquiring education their occupational choices are limited to low paid jobs, resulting in savings that cannot cover their children tuitions, and so the vicious circle continues.

Walker (2007) argues that inequality is beneficial in poor countries because large savings are needed in order to invest, and the poor use their incomes largely on basic consumption goods, leaving only the rich capable to invest. As investment is necessary for economic growth, the more wealth few individuals accumulate, the higher will the investments be, and thus, the more rapid the economic development (Walker 2007). Additionally, if wealth

was redistributed, the well-endowed individuals would lose motivation to work hard and invest, this way decreasing the growth rate (Shin 2012). This theory was considered by a number of researchers, concluding that inequality is beneficial for economic growth due to investment constraints of the poor only in early stages of development. If such situation continues longer down the road, the poor, who are under severe credit constraint which hinders their participation in economic activity, eventually would initiate social unrest, and the growth rate would decline (Shin 2012). Thus, income inequality is only beneficial for poor underdeveloped countries in the early stages of their economic growth, once the country's income level increases income inequality becomes a hindrance in the development process.

The neoclassical growth model suggest that poor economies should grow faster than the rich ones due to presence of their unexploited human and capital resources, which, if the right policy is chosen, would eventually lead the poor countries to catch up with the developed world in terms of both, GDP and output (Zaman, Khilji 2013).

3.4.2 Social mobility

Social mobility can alleviate the negative perception of income inequality in societies, though such mobility has to be paired with economic growth and be well functioning in order for it to be inequality diminishing rather than to only have a perceptive effect. This is especially so for countries with initially high level of income inequality as there it is highly accepted and perceived as a norm to stay.

Economic growth seems to have catalysed income mobility in Russia between 2000 and 2005. Though the mobility was more pronounced at the bottom rather than the top, relative income inequality has not diminished. That was so due to changes of relative position of individuals in the society, implying that the same share of the poor have moved up the income ladder as the individuals who are better off moved down, replacing the poor. Thus, the relative share of the poor in the society did not experience a significant

change (Lukiyanova, Oshchepkov 2012). Based on this observation one could conclude that neither economic growth nor income mobility is a force capable of abolishing unequal income distribution.

Chaudhry and Garner (2013) suggest that the perceived opportunity for social mobility is what makes income inequality more tolerable for citizens of United States as opposed to the European countries, where societies do not see many opportunities of moving up (or down) the social ladder, and thus, have the notion that they are doomed to stay with their current income for a lifetime. Such notion create the desire for Europeans to have equal societies in order to feel content and happy with their lives, while in the US people do not mind a greater degree of inequality, as they do not feel their future opportunities being threatened by their current status. The authors mean that because US do not have to focus on redistribution as much as European countries, they have higher funds for investment, and thus, can catalyse higher level of growth (Chaudhry, Garner 2013).

Thus once again, the question of whether income inequality is so bad after all can be raised.

3.4.3 Sustained growth

Growth achieves long term prosperity in a country (Herzer, Vollmer 2013), and long term prosperity is of interest of every country, thus economists have tried to identify main factors supporting and hindering long term development which we will shortly touch upon.

Solow (1956) suggests that economic growth depends on 3 main factors: changes in country's capital stock (buildings, roads, etc.), labour force, and technological development (as cited in Hillebrand 2008). In his model once economic growth plateau after a certain level of capital accumulation and labour force concentration, technological development becomes the mean to revive the development rate.

Hillebrand (2008) argues that the government actions seen to best promote long term economic growth are: (1) free markets and private property, however with a degree of government supervision, (2) trade and financial market liberalisation, for boosting investment capacity above the levels of domestic investment, and (3) a well-functioning government and its institutions, as an overarching body (Hillebrand 2008). In support of the latter, Berg, Ostry & Zettelmeyer (2012) suggest that more equal societies tend to sustain growth for longer, with efficient institutions being one of the most important elements for such sustainability. Additionally, currency appreciations and government changes seem to increase growth, while failing export, conflicts and macroeconomic instability seems to decrease it (Berg, Ostry & Zettelmeyer 2012).

Berg, Ostry & Zettelmeyer (2012) further argues that external shocks and weaker institutions are associated with shorter growth. Weak institutions make countries especially susceptible to external shocks, while in addition domestic economic and political problems, which are rather likely in a country with poorly functioning institutions, might make the countries even more sensitive to crises, and as a result of both external and domestic shocks, destabilise economic development. Thus, to maintain a stable growth rate, countries need strong, growth 'supporting' economic institutions protecting investor, entrepreneur, and property rights (Berg, Ostry & Zettelmeyer 2012). Fractionalisation also seems to help keep growth sustained due to homogenous societies being presumably better at dealing with shocks. Quite unexpectedly, but it has also been found that external violent conflict too contribute to prolonged economic development in domestic markets (Berg, Ostry & Zettelmeyer 2012).

Thus overall, factors that predict sustained growth are: a rather equal income distribution, well-functioning democratic institutions, openness to trade and FDI, sophisticated exports' production structure, lower inflation rates, less reoccurring depreciation, less debt, fractionalisation and technological development. In turn, growth is more volatile in the presence of weak economic institutions, social conflicts, and export orientation that can

strengthen institutions. As social conflicts weaken institutions which then do not have the full capacity to handle external shocks, export orientation through innovation led economies and built constituencies can help handle external shocks more effectively and compensate for the negative impact social conflicts create (Berg, Ostry & Zettelmeyer 2012). It also goes without saying that initial low income levels facilitate prolonged economic development as the lower the income levels in a country initially are, the longer such countries need to grow their economy to reach the income levels of developed countries (Berg, Ostry & Zettelmeyer 2012).

3.4.4 Poverty

Economic growth is the single best way to reduce poverty in developing countries, but can only be achieved if macro economy in a country is stable (Zaman, Khilji 2013). However, effectiveness of growth in reducing poverty is limited when levels of income inequality are very high, as the redistribution of higher income is what improves poverty, not higher incomes per se. The situation is also harder to improve in the least developed countries, likely because, relating to the previous point, the effect of growth increases with higher incomes (Zaman, Khilji 2013). Poverty could also be more present in poor countries due to other factors than income, savings or assets, but healthcare, gender weakness, repression, infant mortality, illiteracy, food and malnutrition, hygiene, and other non-economic factors (Zaman, Khilji 2013), as they tend to underperform in poor economies. In the case of Africa, poverty there is most likely prevalent because of continent's geographical position, ethnic fractionalisation, weak health and income distribution, and a general tendency of under expenditure on public goods (David Fielding 2006).

Zaman (2013) argues that there is no doubt about economic growth having a poverty reducing effect given the evidence that poverty reduction is only possible when national income is rising. However, because poverty is closely positively linked with inequality, redistributive policies greatly improve the situation of the poorest (Zaman, Khilji 2013). Baumol (2012) even argues that a high degree of income inequality puts people in to

poverty and thus is undermining the potential of economic growth (as cited in Herzer, Vollmer 2013).

Thus in sum, the recipe to improving poverty is stimulation of economic development and reduction of income inequality, or in other words, a country needs to implement pro-growth and pro-poor policies (Zaman, Khilji 2013).

3.5 China

Understanding the growth in China might offer insights in the economic growth of developing countries and the relationship between economic development and income inequality. China has shown extraordinary growth over the last 20+ years, has been under a spot light for the last century, and thus, is a good guiding example of which theories and assumptions regarding the relationship between income inequality and economic growth are closer to being true than others. By drawing any conclusions from a specific case of China we have to however, under all circumstances remember that it is an isolated case of an Eastern country under authoritarian rule, and thus, might have very different characteristics than the developing countries in Africa or Latin America, not talking about the developed Western economies, meaning that we have to be cautious in translating any mismatch between the theory and the Chinese example as incorrect, inapplicable theory, because all the theory we present here has been empirically derived from an array of countries, regions and samples.

We will start this section by describing what were the underlying factors that let China reach its rate of development and prosperity, that is, we will describe Chinas growth model, which will be followed by a discussion of the role of the government in the successfulness of China's development, and further followed by a discussion of what contributed to a now high level of income inequality in the country. Thereafter we will identify any parallels between the above presented theory regarding the relationship

between income inequality and growth and the specific case of successful China's development.

3.5.1 China's growth model

Export-led-growth (ELG) model was the cornerstone of China's development, enabled by the surge of industrial labour force in the cities due to originally large resource base and also the additional large urban immigration (Yao 2014). Liberalisation was the key driver for this type of growth, which dramatically increased in 2001 when China joined WTO and thus its products became subject to a marginal tariff across the globe (Yao 2014). As the added value of a single unit of China's export was very small, the country depended on export in large quantities (Yao 2014).

The fundamental success factor for China's ELG model was double transition of democracy and labour allocation, which had both, the level and the growth effects, in stimulating growth. The level effect manifests in large labour supply, while the growth one in high saving rates, which has created space for investment in technology and industrial capacity, and the uneven growth rates of productivity and wages, making the labour force cheaper with time, as productivity grew faster than wages. Due to this same growth model because of which China's development has been booming, in 2015-2020 the development rate is bound to slow down, as the country's current state of development requires investment in human capital for economic growth to continue (Yao 2014).

The initial conditions have also played a big role in such a successful development of China's economy. Firstly, the high adult literacy rate, low children mortality and longer life expectancy enabled high levels of human capital achievements. Secondly, land reform in 1978-1984 institutionalised equal land distribution and the low-wage policy very much equalised income distribution in the country. Apart from the lack of vertical mobility due to the hukou system separating urban and rural social classes, the only strong group in the society was the Communist Party, enabling them to adopt growth enhancing social and

fiscal policies without opposition. Thirdly, China developed a substantial manufacturing sector during the first 30 years of the development, which also was highly productive. This was possible due to the effect of China's low-income policies on the speed of industrialisation and improvements of human capital development (Yao 2014).

China's growth has and still does rely mostly on investment, which in the first part of development was possible due to very high saving rates (Yao 2014). This could be due to growing per capita incomes, as the more disposable income is in society, the more money there is to save. Increased income inequality could also be a factor, as individuals who earn higher incomes are also more prone to save. Else, saving rate could also be high due to higher than lawfully regulated down payments for private housing, and thus, individuals need to save larger amounts of money in order to meet such payments (Yao 2014). Growth based on capital accumulation is however only possible until an economy reaches the steady state, where the technological development and accumulation of human capital needs to replace the former. In China, besides the capital accumulation, structural change of labour reallocation from agriculture to non-agriculture has had a significant 24,6% contribution to overall growth in years 1978-2004 (Yao 2014).

It is worth noting though that the human capital accumulation is as important to industrial development as physical capital accumulation (Yao 2014). Growth in educational attainment was a reason for the fast growth of China's R&D sector. The biggest challenge for the country now is to increase the educational level of the urban migrant workers in order to increase country's human capital accumulation rates. However, government is not paying enough attention to on-job training or part-time schooling, which are the only options for migrant workers to increase their educational level (Yao 2014).

China followed the model economists recommend for developing countries, which generally focuses on high saving rates, human capital accumulation, technological development, economic stability and a market where property rights are protected, and

thus, the country has showed outstanding economic performance. The question though is, why did China take the right steps (Yao 2014)?

China transitioned to a market economy through the sense of crisis and thus creation of contingent institutions, where such get created as a response to most pressing issues at the time, and strict enforcement of quotas. Unfortunately, corruption is highly related with contingent institutions which could have slowed the growth, but, even though in 2001 China was qualifying as one of the top 25% of countries with highest degree of corruption, it did not have a negative impact on the country's economic development. Thus the take away from this fact is that developing countries should not reach for institutional purity in conducting policy reforms. Change takes time, and the new economic efficiency can create the scene for reduction of the unwanted behaviour of state officials later in the future. (Yao 2014).

3.5.2 The role of the state

China has achieved such an impressive growth due to its autocratic Communist Party (CCP) rule. Though comparative advantage strategy implies that the market will regulate itself and thus, the governments should restrain themselves from taking part in economic development in terms of policies, empirical evidence shows that markets are flawed and thus, government interventions are needed for making and following through strategic decisions (Yao 2014). This was at least how China went about its inefficient markets. Its ruling party was the driving force for economic growth with an underlying motivation to strengthen common peoples' support for the regime, as industrialisation is what secures the power of autocratic governments. Thus, the communist party have put in place growth enhancing policies (Yao 2014). In summary, Chinas growth was so successful due to its initial social and political conditions, the emergence of contingent institutions and the growth enhancing policies undertaken by the communist party (Yao 2014).

However, on the downside, a very strong Communist party's focus on growth in search to legitimise itself has caused the government to adopt policies that the general public at the end of the day do not appreciate, this way undermining the purpose of those policies in the first place. The government have put great effort in the production process to induce economic development, but did not make sure for some of that accumulated wealth to be transferred from capital owners down to the common people of China. Government funds were used on areas related to economic growth without making transfers to the common people by investments usually reaching manufacturers or capital intensive producers, who were preferred by the government as it was these capitalists who could further enhance the growth rate. However, with all government funds flowing to investment in the industry, the welfare of the people as well as household consumption deteriorated due to the lack of redistribution (Yao 2014).

3.5.3 Income inequality in China

Historically the countryside has been more unequal than the urban areas as the occupations, wealth and the level of accumulated human capital of rural residents varied widely. However, the income gap is still biggest between the urban and the rural citizens. It should be noted though, that it is difficult to measure real urban and rural incomes due to migrants who, because of the *hokou* system, cannot migrate and stay in the cities and thus, are bound to move back and forth. Thus, it is not fully clear which group should they be accounted to (Yao 2014).

Income levels of the population at large have increased, as did the middle class especially in the urban areas, with incomes becoming more dispersed. China is a large country and thus, might be having income inequality stemming from the different levels of individual skills and capabilities, however, even though income inequality might be partially innate given the country's size, the government still needs to spend its resources at ensuring a more equal distribution when the market forces are too imperfect to be able to distribute income equality in society after individuals' skills and capabilities (Yao 2014).

Government policies have had their toll on the widening income disparities between urban and rural residents primarily through the *hokou* system, as one of the factors keeping the income gap between urban and rural residents prevalent. Other factors are social security in the form of pensions, health care coverage and maintenance programs for low-income families being somewhat present in cities, though absolutely absent in the country, and unequal government redistribution, as the government tend to focus its funds towards investments in infrastructure and research projects, which could help accelerate economic development. Thus, Chinas government has a strong preference for economic growth and therefore focus its funds on production activities trying to make the pie bigger, though is forgetting that human capital accumulation is the future mean to sustained growth, and therefore it is also important how the pie is being distributed, if not for the wellbeing of the people, then for the future growth of the country (Yao 2014).

3.5.4 Parallels between theory and China's development

First and foremost, initially income inequality and child mortality were low while adult literacy and life expectancy were high, creating a perfect environment for early human capital achievements and for that reason, a very fast transition from the early stage of development. Thus, the high income inequality has not been accelerating early growth in China as theory suggests would be natural to happen, due to China's initial advancement. Stable government and its institutions were the case in China, though not in a democratic, but authoritarian form, which our analysed literature did not touch upon. However, this government did take up the theoretically derived policies enhancing growth, such being, to name a few: protection of private property rights, land reform enforcing equal land distribution and labour allocation from agriculture to industrial activities. As investment was found by the main body of research to be essential in accelerating growth in all stages of development, China did a thorough job in ensuring that all available funds would be flowing to industrialisation or in other words the manufacturing sector. Low wage reform,

minimal to no redistribution of wealth to common people and high initial saving rates has enabled China to be plentiful on investment, and thereof economic development.

Due to a high level of government and capitalist investment, household consumption deteriorated as redistribution was not taking place. The theory suggests that redistribution is necessary in the near steady and especially the steady stages of development, which was ignored by China in its near steady stage. Such neglect however did not have grave consequences, as due to heavy exports China found the needed demand outside the country. Though, as export level cannot keep increasing indefinitely, the need for redistribution will starting to show itself and then the Communist party will be forced to enforce heavy redistribution to maintain the country's growth rate. In China's case, the sustained growth lays in increasing rural and migrant income levels in order to enhance their purchasing power, and thereof, the domestic demand. Still, redistribution cannot increase the purchasing power of the poor without decreasing the demand the rich create, and thus, public education will need to take place in order for China to sustain growth in the nearest future. Without the poor, them being from the country, the city or migrating, acquiring education which would qualify them for the well-paid jobs and increase their competitiveness in the job market, China's growth rate will gradually decrease, leaving the country stuck in the middle income trap.

4 Impact on Welfare

Economic growth and increasing income per capita is being focused upon by governments over the world for its effect on raising individual standard of living, as the wellbeing of countries citizens is what matters for governments at the end of the day, or at least, supposed to matter, and not the economic growth level (Walker 2007). Underdeveloped economies tend to be the ones that are poorest, in some instances even unable to provide basic consumption goods, such as food and clean water to its citizens, not talking about education or opportunities for individual self-expression. As been discussed before, economic growth reduces the level of poverty, and income inequality brings around

economic growth in the early stage of economic development, thus it would make sense to say that income inequality increases individual well-being. But as income disparities change the sign of their impact on growth in later stages, it would again make sense to assume that individual happiness would start to deteriorate in the presence of high income inequality in the near-steady and steady stages of economic development. However, is it really the case?

Empirical research regarding life satisfaction reaches conflicting conclusions. The brain reward system can perceive income inequality both positively and negatively (Wang, Pan & Luo 2014), meaning that life satisfaction highly depends on personal evaluation and outside influences. In this part of our paper we will look at the research analysing personal traits deeming difference in perception of happiness among individuals in different social settings, the impact economic growth level has on subjective perception of wellbeing, and the impact ease of social mobility, income per capita, prospects of promotion and the justification of legitimacy of social disparities have on one's satisfaction with life. We will touch upon the changes in life satisfaction individuals in transition economies have experienced and will look at the changes China's rapid economic growth have had on its citizens' perceived level of wellbeing.

We will look at the research findings concerning the effect income inequality has on individual happiness and try to identify consensus upon any general patterns regarding the relation of the two variables. The aim of this part of the paper is to evaluate the social aspect income inequality has on societies, which therefrom will be used to help answer our research problem of whether income inequality is so bad after all.

The analysis will be divided into two parts: (1) analysing how income inequality impacts individual wellbeing, and (2) looking at the specific case of China and its citizens' changing perceptions of happiness under rapid economic development and steep increase in income disparities. In the first part we will try to find any general patterns of the relation between inequality and happiness by looking at what is commonly considered to affect life

satisfaction, how such is different in countries with different level of income and economic development, how social mobility can change the perception of one's future outlook and thus, the notion of income inequality being positive or negative for that individual, and even how the perception and justification of income inequality changes with movements within social classes. In the first part we will also pin point the difference, types of income level comparisons have on individuals' level of happiness, specifically meaning within country income comparisons vs. domestic income level compared to the level of that of foreign countries; and lastly, we will list and briefly describe individual preferences that make a difference in the perception of income disparities. The second part will serve as a real case example of how both income inequality and economic growth have affected life satisfaction of common Chinese, which will allow us make parallels between the findings we will have presented in the first part and a specific case of a country that has had both, a very even income distribution and a recently very dispersed one. These parallels will hopefully create a sense of understanding of which theories are most versatile.

4.1 Individual wellbeing – Happiness

Previous research on the effect of income inequality on individual happiness has been inconclusive. On the one hand, it is positive if considering the notion that inequality is necessary to keep individuals motivated to work hard and be economically competitive, which is growth enhancing through entrepreneurial activities in tact with government policies supporting liberty rights. On the other hand though, inequality is considered to be lowering social trust, increasing crime, poverty and dividing society, which reduces personal happiness (Rözer, Kraaykamp 2012). Many aspects come into play forming individual perceptions and thus circumstance such as different level of economic development of an economy can create opposite feelings about the fairness of income inequality for people of same social standing but living in countries of different economic advancement. Such could be explained by individual happiness being a subjective evaluation of a person's quality of life, and thus, goods attributed to a happy life like social

security, income mobility, power, social status, health, are only important as measures of one's happiness and have little importance individually (Wang, Pan & Luo 2014). In this section we will look at how these measures and their combinations influence the perceived wellbeing of individuals as much as such can be evaluated. It has to be remembered though, that the below analysed measures of happiness in different social and economic situations might create feelings in individuals opposite to the ones described here while not falsifying them.

4.1.1 Perceived level of happiness

Having in mind the common perception that income inequality is unpleasant, it must follow, that in an unequal society the subjective well-being reduces the perceived level of happiness of its inhabitants. The negative connotation of income inequality might be stemming from the assumption that inequality is perceived a risk in societies with mostly risk-averse people (Oshio, Kobayashi 2010). Other speculations, like Oshio and Kobayashi's (2010), suggest 3 plausible explanations for negative perception of income inequality, where one of them again mention risk averseness: (1) Income inequality can be perceived as a limiting factor of future opportunity, especially in a society with low social mobility; (2) people might have an individual perception of ideal level of equality, and when this perception does not match the real social-economic conditions, the level of perceived individual happiness is reduced; (3) risk-averse individuals might see it as a risk in a form of uncertainty of the future (Oshio, Kobayashi 2010).

Apart from income inequality raising negative feelings in society, individual happiness is also influenced by: (1) comparisons with the incomes of others, (2) lack of stability in one's social status, and (3) access to social relations, with social capital being particularly important. Local norms, differences and income levels, relating to before mentioned factors, are all circumstances influencing the perceived level of happiness (Oshio, Kobayashi 2010).

4.1.2 Perceptions of happiness in poor vs. rich societies

While the theories and methods can be argued about, the general tendency shows a negative income inequality's impact on individual wellbeing. Additionally, typically poor societies are also much more unequal. More developed countries have a more equal educational distribution, more skilled labour and fewer farm workers, or in other words, fewer workers with bottom salaries and more with the top pay. As education highly determine occupations, and occupational choices determine incomes, a more equal distribution of educational and occupational attainment thus reduces inequality. On top of that, developed countries have a fine tuned welfare state providing social help to the poorest, further reducing income disparities. Thus, the level of economic development needs to be taken into account when determining the effect of income inequality on individual wellbeing, as omitting the state of development of an economy might lead to wrong conclusions, due to the correlation between low level of development, poverty, income inequality and happiness. That is, people are generally less happy in poor, underdeveloped countries, with low pay and social security, which generally also happen to be more unequal, meaning that it's not necessarily inequality that makes individuals unhappy, but the social and economic situations of countries (Zagorski et al. 2013) and the actual deprivation (Veenhoven 2008 as cited in Zagorski et al. 2013).

Oshio and Kobayashi (2010) also confirms that individuals living in areas with higher income inequality report to be less happy. Moreover, they state that individuals with unstable occupational status have a higher sensitivity to inequality, and report to be less happy, meaning that area-level inequality further worsens the position of such individuals, creating, in countries context, a policy concern (Oshio, Kobayashi 2010).

Thus, it seems to be that individuals who are initially worse off are more sensitive to inequality, as are people with unstable social or occupational status. However, one has to keep in mind other factors influencing lives of the poorest, such as crime, uncertainty, and poor public health, and remember that they all are influencing the happiness factor for

individuals, before assuming any causal relationships between income inequality and personal wellbeing (Oshio, Kobayashi 2010). Thus, if attributing low levels of happiness to poor social conditions that the worse endowed agents are exposed to, we would conclude that income inequality does not have an obvious effect on individual happiness; which is at least the standpoint of the postmodernist view (as cited in Zagorski et al. 2013).

Other findings suggest that trust makes people happier, as does higher spending of local governments, while higher education attainment and larger proportion of elderly people oppositely, reduces the level of wellbeing. From all that has been said, one could suggest that income inequality makes unhappy individuals more unhappy, while keeping the happy ones more or less indifferent (Oshio, Kobayashi 2010) in rich societies, but does not necessarily have a strong causation in poor countries.

4.1.3 Future outlook

Income inequality matters most when it is threatening ones position in society and ones future outlook. Thus, we could say that it is not the actual level of income inequality that makes a difference for an individual, but rather their perception of the phenomenon is what influences their level of happiness. That is, even though individuals are not directly affected by income inequality, their either positive or negative perception of the inequality will affect their happiness (Schneider 2011). Perception of the degree of income inequality is neither straight forward, but dependent on the social status and personal characteristics of the person asked: higher social class individuals have a tendency of overestimating the degree of inequality, while the poor underestimate it (Schneider 2011). Thus, to understand how individual happiness is influenced by income inequality we need to understand how individuals perceive social environment.

However, it can also be that not even the perception of income inequality is important, but the fulfilment of personal preferences is what makes a difference in individuals' level of happiness (Schneider 2011). The hypothesis is that the greater the mismatch between

perceived and preferred income inequality is, the greater life dissatisfaction an individual experiences. Thus, government policy focus should not be concentrated on characteristics of social settings only, but on the impact of social situations on individuals as well (Schneider 2011).

4.1.4 Legitimacy of income inequality

Schneider (2011) considered the impact of income inequality on individual wellbeing from a cognitive perspective. He arrived to the conclusion that it is not even the mismatch of perceived and actual income inequality that influences peoples' happiness, but the degree of legitimacy they perceive the given social situation has. That is, individuals with higher incomes perceive inequality as legitimate either by assuming that all individuals have equal opportunity in the society and thus can reach the same level of wealth if put the effort needed, or by assuming social mobility to be well functioning, and this way perceiving their own position and the general level of inequality as acceptable, which then eliminates the inequality related guilt and increase their happiness (Schneider 2011). This legitimisation mechanism allows individuals to convince themselves that there is no personal guilt or responsibility related with income inequality (Schneider 2011) and that thus, they can just as well enjoy their lives without worrying about the problems of the broad society.

For the reasons explained above, it seems that the higher the income of an individual, their educational attainment, and the higher the degree of social mobility in a given society, the happier these individuals feel, which is even more pronounced for older people and men. The latter, positive evaluation of income inequality by older people and men, could be explained by the past experience bias, as older people are often more advantaged than the young, and men had more rights than women for the big part of history (Schneider 2011), thus, these two groups do not feel any emotional strain and wrongness with being more advantaged in society, and the society itself being more unequal in general. With regards to social mobility, the greater the potential for promotion individuals feel, which translates to better future prospects, the happier they are in their current social positions, even if

they are disadvantaged (Schneider 2011). Thus, the prospect of promotion, together with the legitimisation of hierarchical systems in a society and persons' individual position is what creates the highest level of life satisfaction in an equal or unequal society regardless.

4.1.5 Within country vs. domestic – foreign income level comparisons

Chaudhry's and Garner's (2013) article suggest that there are two types of comparisons individuals make that influence their happiness: a within country income comparisons and domestic income level compared to the level of that of foreign countries. Their findings suggest, that when individuals' domestic income differences are important in a society, government tend to be more closed to FDI and immigration - slowing economic growth because the rich dread to become poor, and thus, try to minimise the competition as much as possible. On the other hand, if income comparisons with foreign countries are what the society care more about, then a country will be more open to trade and immigration, as FDI and increased competition increases output, meaning increased economic growth, and consequently - higher wages. The rich in the latter case would prioritise increased output and thus, growth, rather than securing of their position in the society (Chaudhry, Garner 2013), as having higher utility than the rich of the neighbouring countries' would make those individuals happier (Easterlin 1995 as cited in Chaudhry, Garner 2013). Thus, the definition of which agents is income inequality being measured among makes a difference in the assessment of its impact on individual happiness.

4.1.6 Individual features determining the perception of income inequality

We have already discussed how the perceptions of the impact income inequality has on individual wellbeing can change the happiness level of individuals, how different factors such as income mobility and social standing influence the positive/negative connotation attributed to the relationship, and other situations and circumstances that has an effect. However, income inequality also affects individual happiness differently for different individuals depending on their individual features, nation's characteristics and the trust

level in a given society (Rözer, Kraaykamp 2012). In this paragraph we will briefly touch upon how individual perceived income, egalitarian norms, social trust, institutionalised trust and social mobility impacts the perception towards income inequality.

4.1.6.1 Individual perceived income

In support of the positive relationship it can be assumed that the higher is individual's relative salary compared with the country specific reference group, the more positive is the relationship between income inequality and individual wellbeing. This is grounded on the assumption that individuals are more concerned with their relative than actual income (Rözer, Kraaykamp 2012).

On the other hand, the reference group theory implies that income inequality reduces wellbeing due to individuals comparing themselves with the very small share of the top income earners, whose income creates a wide income gap (income inequality) between the mean and the top earning individuals, reducing the relative perception of success and thus happiness of average persons compared to their reference group (Zagorski et al. 2013).

In line with the reference group theory, the deprivation theory suggests that income inequality not only reduces individual happiness, but also decreases quality of other areas of life such as subjective health, due to the perception of the majority of common people that inequality is unjust and signals extreme deprivation (Zagorski et al. 2013). According to the deprivation theory, individual develop such feelings towards income inequality because they feel disadvantaged in relation to the rest of the country's population, even if they are not disadvantaged in real terms (Zagorski et al. 2013).

Thus, individually perceived social standing, level of subjective health, feelings of deprivation, and denied opportunities are all individual perceptions of one's situation, impacting the light in which income inequality is being seen. In other words, individual evaluations of personal situations are what make a difference in individual wellbeing, and

are adding a positive or a negative connotation to income inequality as a phenomenon, regardless of the real level of deprivation, income level or social standing of individuals.

4.1.6.2 Individual egalitarian norms

People feel less happy when the environments they live in do not conform to their perceived norms (Schneider 2011). Income inequality can be distressful to many as it is often perceived unjust, and thus, can decrease the life satisfaction in a society with a major share of individuals adhering to egalitarian norms (Rözer, Kraaykamp 2012).

4.1.6.3 Individual social trust

Similarly to individuals with egalitarian norms, high level of perceived social trust enhances feelings of solidarity to those worse off, and in an unequal society might create negatively perceived relationship between inequality and happiness (Rözer, Kraaykamp 2012). The more trustful people tend to be less satisfied with their life in unequal societies, as they feel that all individuals should have equal opportunities, and when it is not the case, they feel distressed and unhappy.

4.1.6.4 Individual institutionalised trust

On a national level the trust factors plays just as important a role, as individuals trusting their governments feel responsible for each other, and the presence of high income disparities creates a feeling of the government not living up to their trust, in turn making them feel less happy than they should, given their own position in society (Rözer, Kraaykamp 2012). Individuals trusting governments in their countries expect fairness and pro-activeness from them. In the case of high income disparities in a society, its members might feel as not enough is done to reduce such and improve the wellbeing of all individuals, in turn reducing their perceived satisfaction with life (Rözer, Kraaykamp 2012).

4.1.6.5 Social mobility

Social mobility can have different meanings for individuals of different social groups: the rich might perceive it as a risk to lose their position and thus, put a negative connotation on it, while the poor would most likely see it as an opportunity to improve their lives, increasing their happiness levels (Schneider 2011). In other words, the greater perceived income mobility is possible, the more happiness it gives to a poor citizen, but less happiness rises for a rich one (Schneider 2011). Education is directly related to social mobility, as it is primarily through educational attainment individuals increase their salaries and get the chance to climb the social ladder. Thus, any potential decline in or absence of educational enrolments directly affects individual wellbeing as it denies educational opportunities to children, reduces the extent of social mobility, and in the long turn, retards economic growth (Gruen, Klasen 2012).

In the absence of social mobility, effort and skill is what the top income earners think takes to move up the income ladder given all else equal to justify their advantaged position without bearing the feeling of guilt it carries along. Though the poor do not stand for same arguments, from their perspective income inequality is what contributes to their poorness, and no level of skill and effort they could exercise would change the situation (Schneider 2011). Thus, the perception of the level of social mobility is what makes a difference for individuals' level of happiness.

4.1.7 Country characteristics

Empirical evidence suggests that the association between happiness and income inequality might not only be influenced by individual characteristics, but by country specific ones as well (Rözer, Kraaykamp 2012). In this paragraph we will briefly go through the main country specific characteristics influencing the level of individual happiness, them being national wealth and national social and institutionalised trust.

4.1.7.1 National wealth

If considering Maslow's (1954) hierarchy of needs perspective, it can be assumed that in wealthier countries which have time and resources to focus on social wellbeing, poverty and inequality, high degree of income inequality might cause dissatisfaction due to individual moral implications such disparity cause, and thus this way diminish personal happiness. However, poorer countries experiencing economic stain might not focus on such issues in their early phase of development due to the lack of socio-economic means, and thus, would simply perceive income disparities as an inevitable consequence of the growth process, where under such circumstances, income inequality would not have a negative effect on the national level of happiness (Rözer, Kraaykamp 2012).

4.1.7.2 National social and institutionalised trust

Similarly to individual social and individual institutionalised trust, national trust creates the expectations of equal treatment of all individuals because this is what is fair and just, and a government is trusted to be fair and just. For this reason the more society trusts its government to take care of the wellbeing of the citizens, the more negative is the relationship between individual happiness and income inequality becomes (Rözer, Kraaykamp 2012).

4.1.8 Transition economies

During the transition between 1988 and 2008 the change of economic systems of many European countries had an impact on their growth trajectories and income distributions. The most pronounced was the increase in level of income inequality, which was moderate among central Europe, while very high in eastern European / post-soviet countries (Gruen, Klasen 2012). This diminished the level of life satisfaction especially in former Soviet Republics as people there were more accustomed to a society where everybody is equal, and thus, had a stronger preference for equality. For this particular reason, the individual

wellbeing of former soviet countries has sharply decreased during the transition period, reducing the level of wellbeing.

Thus, it seems that income inequality depresses life for the citizens of countries under transition. However, this seems to be the case only in the early stages, as over the long term opinions about inequality become more accustomed, or if putting differently, opinions in the transition countries assimilates to the opinions of other market economies (Gruen, Klasen 2012). The young generally seem to be the most satisfied with life under transition, which could be resulting from dramatic improvements in political and civil liberties among EU accession countries, and to a more moderate degree elsewhere (while experienced a decrease in Rusia and Belarus), as these sort of improvements brings along a prospect of a brighter future.

Thus in sum, transition economies have experienced some improvements in political and civil rights, which are essential for the future development of societies, and thus, by brightening young individuals' future prospects, increased their immediate life satisfaction, though as the mean income and income inequality spiked in parallel, it depressed the self-perceived happiness of the rest of the population under the transition, and in sum created a division of happier young and less happy elder citizens (Gruen, Klasen 2012).

4.2 Happiness in China

After outlining the different factors, circumstances, individual and country characteristics that impact the perception of income inequality positively or negatively, we can define any general trends between income inequality and individual happiness and compare them to the notions of the relationship that have been observed in China during its transition from a poor to a middle class economy. This in our perception is the suitable way of checking the versatility of the general trends we derive from the empirical research findings in the field. We will start this paragraph by summarising the general patterns of the relationship between income inequality and individual happiness; secondly, a China applicable tunnel

hypothesis will be described, explained and applied to the China's case. Finally we will describe the research findings of Whyte and Im (2014) who have been analysing Chinese attitudes towards income inequality for years 2005 and 2009, which will allow us to see patterns in the change of Chinese attitudes towards unequal societies while their country experience the transition with spiking income inequality. In the last section apart from explaining Chinese attitudes in times of change, we will check whether any of our identified general patterns between income inequality and individual wellbeing apply to the Chinese case.

4.2.1 General patterns

Generally, income inequality is perceived negatively by the poor in persistently poor economies with very marginal to non-existent social mobility, where the rich do not find such social conditions to be bound for improvement. However, in more advanced middle income countries the poor are less concerned with income disparities than the rich, especially if social mobility is present, as in this setting the rich, having time and resources, tend to worry about the illnesses of the society they live in, meaning especially the unfairness of the disadvantaged position of the poor, this way reducing their own individual happiness, while the poor are more occupied with working hard and improving their social and economic standing than worrying for the imperfections of their country's social system. Accessibility to education and social mobility play important roles in improving happiness levels of individuals, as it is not the income inequality that makes them unhappy, but the perception of the level of their current and future social standing in relation to their reference group, which usually is the rich in the society. Thus, if individuals believe that their future will be brighter than the present is, which illusion accessibility to education and presence of social mobility creates, they will feel more satisfied with their lives even if they will not be exploiting the opportunities that are available, raising the overall level of happiness in their countries. In sum we can suggest that income inequality itself do not make individuals less happy, but rather individual perceptions of the level and

the impact of income disparities on their current lives and future prospects is what determine whether income inequality is being perceived positively or negatively by individuals.

4.2.2 Tunnel hypothesis

Wang, Pan and Lou (2014) advocating for the tunnel hypothesis suggest that levels of individual happiness rises with low levels of income inequality, while after reaching a certain threshold and rising, starts reducing life satisfaction. The tunnel effect can be explained by imagining traffic in a 2 lane one way tunnel where a traffic jam accumulates. After cars standing in the left lane start moving, the right lane drivers feel happier simply from the fact that the traffic jam has cleared and that they will also start moving soon. Thus, even though the right lane cars did not yet start moving themselves, they feel uplifted by the idea that they will in the near future. However, before long the right lane cars need to start moving, else the happiness turns into discontent, and starts reducing right lane drivers' wellbeing, especially seeing the right lane drivers continuously passing by. In the case of income inequality, the tunnel effect manifests in country's citizens observing others moving up the income ladder, and hopping the same will happen to them too as the economy grows, making them happier with changing neither their own status nor income level. In other words, in early stages of increasing inequality citizens feel happier regardless of their own position, this way creating a positive relationship between income inequality and individual happiness. However, similarly to the car example, after a certain period of time, discontent steps in clouding individual wellbeing caused by the disappointment and feelings of being cheated, changing the positive relationship to a negative one (Wang, Pan & Luo 2014).

The tunnel effect has been found to have taken place in Poland (Grosfeld and Senik (2010) as cited in (Wang, Pan & Luo 2014)) during country's transition to a market economy 1992 – 2005. The first half of the transition came around with positive attitudes towards income inequality (1992 – 1996) while the second part of the transition period has changed the

sign. Thus it could be assumed, that income inequality promotes economic development, peoples' enthusiasm about the future and so also their wellbeing in the early stages of growth (Wang, Pan & Luo 2014).

The evidence from China (Wang, Pan & Luo 2014) also confirms the tunnel theory. The findings also show that the level of tolerance towards income inequality is higher in rural areas as opposed to the urban ones. Therefore, one could say that living in a rural area matters for the poor as the rural poor are happier than their counterparts in urban settings, while the level of happiness of the rich does not get influenced by whether they live in the city or the suburbs (Wang, Pan & Luo 2014). This could be so due to lower level of literacy and education, stronger sense of obedience to the ruling order and law, and higher moral standards in rural areas, creating a notion that the government is going to take care of the poor rural residents' status in the future and make them rich, while the poor urban residents perceive income inequality as unfair and do not count on the government to take action to improve their wellbeing, thus, making them feel less happy. Individuals with higher education feel more resentment to income inequality, as have been mentioned before, and as they usually earn higher incomes as well, it could be concluded that people living in urban areas and having a higher educational attainment are less happy than their less educated rural counterparts (Wang, Pan & Luo 2014).

In accordance to the tunnel theory, individuals in China who have moved up the social ladder and enjoy their high status tend to view income inequality positively, possibly in search of justifying their current status and the effort they have put into achieving it, while the less fortunate Chinese tend to blame income inequality for their position perceiving the situation as unfair (Whyte, Im 2014), as if they are stuck in the right lane. Though some Chinese perceive income disparities as unfair, income inequality should not solely be labelled as negatively impacting individual wellbeing in China, as low levels of income inequality can make people happier than the absence of it, because income disparities function as stimuli to work hard and improve one's living standards. From a policy

perspective, a low level of inequality is better than no inequality, while high level unfortunately destroys people morale and can cause social unrest (Wang, Pan & Luo 2014).

4.2.3 China's transition – versatility of general patterns

Whyte and Im (2014) have measured attitudes toward inequalities in China in 2004 and repeated the research in 2009. Surprisingly, with significantly increased income inequality in 2009 Chinese people were more positive towards inequality as a phenomenon. Though one would imagine that with rising income inequality society's satisfaction with life would decrease, the empirical results show that citizens have become more accepting of ever worsening income distribution (Whyte, Im 2014). In 2009 survey Chinese were much more compliant with the income gaps, they saw them as fair and present due to individual differences in educational attainment, ability and the work individuals put in trying to climb the social ladder. Thus, with time China's citizens started seeing inequality as a fair, merit based social order, rather than social order threatening to cause social unrest (Whyte, Im 2014). This confirms our general pattern of the positive/negative impact of income inequality depending on individual interpretations of current and future situations, as Chinese show more tolerance towards inequality in 2009 than 4 years ago because of the tangibility of the perceived brighter future at this later date, if only they will put the effort required achieving it.

Greater optimism prevails in society as it is more positive about their ability to reach better standards of living and higher social justice than previous generations. However, the government is also more expected to provide a social safety net for its citizens. In other words, even though Chinese see income inequality as more fair and thus, put a positive connotation to it, the expectations from the government side are to put the required effort in combating the social injustice rather than leaving the market to decide who is more or less worthy. Such expectations could be explained by presuming that as a significant part of society has become richer, they have more time and moral capital to be concerned about the wellbeing of others. For this same reason it could be that Chinese dissatisfaction

with lack of government efforts in combating social injustice through redistribution, or in other words, making China a more effective welfare state, decreases their happiness (Whyte, Im 2014). This again confirms our general pattern of the more advanced societies being more concerned with the wellbeing of their country's citizens' social and economic standing.

Generally, rural citizens keep being positive about their future prospects in 2009 as they also did in 2004, but to a slightly lesser extent, while urban residents started perceiving income inequality as less harmful and their future dependent on merit – education, willingness to work and individual ability. Older citizens had a more negative take on the situation in both surveys. Rural residents and migrants have become more pessimistic with regards to fair treatment in 2009, while the urban pessimism has declined. This could possibly be explained by massive rural land confiscations due to urban expansion. Well-educated felt having more opportunities in 2009 as did those with higher incomes. People whose life and income improved during the period were more positive about what the future brings, while the less fortunate felt the opposite (Whyte, Im 2014). This again is in line with our previous findings of individuals who have improved their socio-economic situation being more positive towards the future, and also less negative towards the presence of income disparities.

Rural Chinese though wishing for a more equal society as a whole do not expect the government to correct for the prevailing inequality, take more responsibility than individuals and families in educating society, providing health care, housing, employment and other social security goods. Urban residents in contrast rely much more on the government support, though lacking the preference for an equal society going forward. Those who got better off in the 5 years between 2004 and 2009 favour individual work and effort in obtaining higher standards of living, while those who became worse off tend to favour more government intervention in correcting for the prevailing social situation, but trusting less in such actually happening in 2009 (Whyte, Im 2014). Chinese government

however has been sending messages of its effort to provide more support to the poor and disadvantaged, which has happened to an extent as the rural medical insurance coverage has greatly improved, making rural residents more positive about the future, but such promises also make the public more eager for the government to live up to its standards and implement a better wealth redistribution (Whyte, Im 2014).

Thus Chinese have an increasingly positive attitude towards income inequality under their economic transition to a middle class society due to the increasing tangibility of the future opportunities for moving up social classes. Also, rural residents feel happier than their urban counterparts not because of their more advantage position which is not at all the case, but they feel happier because they count on the government to be taking care of their income increases when the time comes, while the urban residents count on their own effort. Thus generally, Chinas case confirms that income inequality does not increase or decrease one's happiness, it is the perception of the person's current and future position what makes all the difference.

5 Discussion

Is income inequality so bad after all? After outlining the impact income inequality has on economic growth through different factors, the impact state policy has on growth and the role of income inequality on individual wellbeing, we can evaluate whether income inequality is actually detrimental to growth and if so, under what circumstances.

Given that the speed of economic development is dependent on different factors in different stages of growth, we will divide our discussion in to 3 distinctive stages: early stage and transition towards the near steady stage, the near steady stage, and the steady stage of development. After identifying what sign (positive or negative) income inequality has on economic growth in different stages of development, we will consider the impact income inequality has on individual wellbeing in the different stages, after which we will

suggest the optimal government policy mix addressing both, economic and social concerns, and answer the question whether income inequality is actually 'bad'.

5.1 Early stage of development and transition towards the near steady stage

Since the origination of classical theory it has been agreed that income inequality is beneficial to economic development in the early stage of development. The reason for such being the importance of physical capital accumulation, which is reached to the highest extent when concentrated in few hands, resulting in high income inequality.

The notion of negative impact comes in when future growth prospects are being considered. During the transition to the near steady stage of development a shift from accumulation of physical to human capital needs to happen. Such shift however, does not always happen naturally, as for such to happen a certain foundation needs to be laid out in the early stage of development. This foundation is an initially relatively equal income distribution, economic conditions allowing individuals to migrate freely, and accessibility and affordability of education.

I say *relatively* equal income distribution because, as mentioned before, disparities in incomes are necessary in early stage of development in order for individuals to be able to accumulate physical capital while capital is still scarce. However, too high initial income inequality can result in the rich gaining enough power to influence government policy decisions and through such hinder provision of public education and redistributive policies. In the presence of high income inequality and low redistribution, labour force mobility gets compromised as poor individuals do not have enough funds to cover migration costs to urban areas, where, as a result, the urban areas do not expand due to the lack of cheap labour force which is what attracts investment and capital.

Initially high concentration of ownership of land and natural resources possess the same threat as high initial income disparities, as concentrated ownership of land and natural resources provide the power and influence to few individuals, who are interested in

preserving their current position in the country's society and economy, and thus, use their influence to create and maintain high degree of income disparities, to minimise migration and access to education. Such situation handicaps economy's transition towards the near steady stage of development as strong government organisations never get the chance to originate and overrule the authoritarian preferences. For this reason countries like Brazil have the potential for an extraordinary economic growth, but do not seem to be exploiting it.

In sum, rapid development in the early stage of development can be reached through the higher the accumulation of physical capital in few hands possible, meaning the highest the degree of income inequality that can be reached. However, in order to sustain economic growth after the early stage of development physical capital accumulation should happen to a somewhat lesser extent in the early stage: high enough in order to enable investment, but low enough to allow for formation of well-functioning government institutions. Thus, optimal conditions for a successful transition to a near steady stage of economic growth are relatively low income inequality and ownership of land and natural resources spread rather widely among individuals in a given society.

5.2 The near steady stage of development

When exactly does income inequality become detrimental to growth? This is a question that does not have a straight forward answer. With the beginning of industrialisation human capital accumulation becomes important to the speed of industrial development as skilled labour is needed to operate industrial technology. For initially poorer countries without strong government institutions and the services they provide, public education is likely to be of a poor quality and hard to access, and thus, private educational institutions would be the place to increase one's human capital. While private education usually requires funds to be attained, only the better endowed individuals could get educated due to their accumulated wealth, leaving such inaccessible to the poor. However, if income disparities in such a social setting would not be present, neither the rich nor the poor

would be able to acquire education so much needed for industrial growth, and thus, income equality would slow economic development. However, for initially more wealthy countries the situation would be somewhat different, as even in the presence of income disparities, private education would be accessible by a rather large share of citizens due to the relatively high income level over the board, and thus, payable tuition fees.

Because human capital can be accumulated by all individuals through educational attainment, the absence of good quality easily accessible public education and disparities in incomes can hinder worse endowed individuals to acquire it in poor countries, though such would not be the case for the rich ones. Meaning that income inequality could start to be detrimental to economic development only in a later stage of industrialisation for poor countries, as in the later stage more human capital will need to be accumulated in order to maintain the growth rate than only what initially was accessible to the rich. While rich countries would not feel the detrimental effect until the steady state of economic growth, due to initially better accessibility to education.

Thus, from a human capital accumulation standpoint income inequality is not that bad in terms of economic growth until the late near steady or steady stage of economic development. However, from a social perspective, high levels of income inequality can cause social unrest and retard growth, while high degree of inequality in a country *with* high degree of social mobility would not be growth slowing. A low degree of income disparities coupled with social mobility would be necessary for economies in all stages of development as stimuli for individuals to work hard, which for economies would mean to have a productive labour force. Depending on which standpoint societies take to look at income inequality from changes the outcome it has on those economies. When individuals consider within country income disparities, better endowed agents in the presence of weak governments can have a tendency to close the economy to foreign trade as a security mechanism for low competition and thus monopolistic rule, slowing growth. While

if income disparities are being considered between countries, it can work as incentive for worse performing economies to increase their development rate.

Income inequality does not have a clear cut positive or negative effect on economic growth in the near steady stage of economic development, as long as inequality is not reaching extreme levels. Generally we could conclude that some level of income inequality could be more beneficial than detrimental to economic growth rate in the near steady stage of growth.

5.3 Steady stage of development

After countries have reached the steady state of economic growth, the primary focus in order to sustain it should be on improving country wide educational attainment, social mobility, income equality and technological development. Sustained economic growth is based on sustained growth in demand, and thus, any means that can increase demand are to be focused upon. Nationwide educational attainment is paramount after a country has exhausted its ability to attract FDI and increase its exports, meaning, when a country needs to increase domestic demand in order to sustain economic growth because other channels have already been exhausted. Easy access to a good quality education enables social mobility to take place as the poor can compete with the rich for the well-paid jobs on same merits. Higher degree of educated individuals in a society mean a higher percentage of society earning higher salaries, and thus higher percentage being able to invest or pursue entrepreneurial activities, all increasing domestic demand. Low income inequality in this stage of development is crucial as the poor hold unexploited share of unleashed domestic demand due to their low incomes, as well as the before mentioned investment potential. Technological development increase demand for skilled labour force and increase productivity of labour, which improves margins and allows for more investment, more job creation, lower unemployment rate and thus, increased demand for goods and services.

5.4 Individual happiness in different stages

We have so far found that a rather high degree of income inequality is beneficial to economic development in the early stage, somewhat beneficial to a lesser degree in the near steady stage, and an almost non-existent level of income inequality should be preserved in the steady stage of development to sustain the growth rate. However, we did not assess the impact such relations have on individual wellbeing, and thus, cannot conclude that these relationships solely determine whether income inequality is that bad after all.

Ultimately what governments try to achieve with their policies are not accelerated economic growth for the sake of growing, but because growth is seen as the only mean of rising standards of living and abolishing poverty. In China's case, the Communist party so fiercely promoted growth enhancing policies to strengthen party's position in its citizens' minds, where such could only be reached though improving the standard of living of those same common people. As income inequality is necessary in the early stage of development of every economy, this phenomenon comes hand in hand with poverty reduction. But then if income inequality is growth supporting as is widely accepted to be, why is it usually depicted in a negative light?

Majority of individuals in the world are risk averse. Following from the fact that income inequality is perceived as a risk, by the rich because it implies a possible downward mobility and by the poor because they think their social status is a consequence of the unfairness of the social system, individuals, regardless of their social status, have negative feelings related to inequality, which is making them feel less satisfied and fulfilled in their lives. It has also been found that income inequality is perceived most negatively in either rich countries, presumably because citizens of rich developed countries have the time and resources to care about others around them and the social problems of the society, or the poor countries which have been poor for an extensive period, and the poor citizens do not see any prospects of the situation to change in the future. Deriving from this, income

inequality does not seem to be seen negative on its own, but rather individuals relate income inequality with social conditions they feel negative towards, meaning that it is not income inequality that is making people unhappy, but their risk aversion, absence of social mobility in a society, individual socio-philosophical perceptions, etc.

In the early stage of development citizens of poor underdeveloped economies do not perceive income inequality as bad unless a few rich land owners use their power over politics to hinder social mobility, educational attainment and thus the improvement of the general standard of living. If poor underdeveloped countries implement right policies in order to transition to the near steady stage of development, people of such countries do not develop negative association towards income inequality, oppositely, they see this phenomenon as a necessary market condition for improving their lives, and thus, welcome the initial disparities in income. In the near steady stage, income inequality becomes an incentive for individuals to work hard and invest in their human capital; however, such happens only in countries where social mobility is possible. Past experiences also largely influence individual perceptions of the disparities in incomes as is seen from the US example, where social mobility is what the country has been known for since its initiation, and thus now, even though the level of income inequality in US is much greater than in Europe, Europeans feel this social situation to be much more of an issue. In the steady stage of development income inequality is usually perceived negatively, as high incomes and standard of living makes individuals more concerned about others in the society who are worse off. The difference of the rich in the steady stage and the near steady one is that wealth is associated with guilt in steady economies, while high social stand in growing ones is perceived more as an indicator of individual skills and capabilities, that is, as an achievement to be proud of.

Thus, the general tendency is that income inequality positively influences individual happiness in early and near steady stages of development, while diminishes in the steady stage of economic development. However, this generalisation is just what it is, a

generalisation, and cannot be applied to real life due to omitted individual perceptions. Individual perceptions of the current and future situations, as proved by the Chinese case, is what make people feel more or less happy in the presence of income inequality. After all, perceived level of happiness is a subjective matter depending on individual preferences for social order, egalitarian norms, past experiences and other.

Subjective wellbeing should be the key driver of policy success (Stiglitz, J. E., Sen, A., and Fitoussi, J. P. 2010; Thin 2012) and thus government resources should be directed at improving the socio-economic situation rather than battling inequality per se (Zagorski et al. 2013), however, this is no easy task if at all feasible to accomplish by any government. Thus, when suggesting government policy individual perceptions variable should be excluded from considerations, as due to its innate uncertainty in application cannot provide any real value.

5.5 The optimal government policy mix

Redistributive policies, widely accessible good quality public education and presence of social mobility is what is needed for rich developed countries which need to further increase their demand to sustain the increasing growth rate, and thus, income inequality is absolutely detrimental in this setting. Though on the other extreme, poor underdeveloped countries would not benefit from such policies, as capital accumulation and cheap labour force is what they need rather than human capital accumulation and wealth redistribution. Policies supporting urbanisation and urban concentration are what poor countries should focus on to fuel their economic development in the early stages.

For the long term, strong government institutions, protection of investors and property rights, high quality widely accessible public education and social mobility is the direction governments need to develop to create environments for a long term sustained economic growth at all stages. Income inequality is not as important of a policy concern as long as it does not reach extremes. If the other above mentioned policies get implemented and

looked upon, income inequality will diminish on its own even without the so much publicly discussed heavy redistribution. A reasonable amount of income redistribution is needed in the near steady and steady stages of economic development in order to catalyse a wide reaching human capital accumulation if a good quality public education is not accessible and social mobility is difficult in a given society. But if education and social mobility is in place, redistribution is not needed to any great extent, as all that it does if heavily implemented is reduce productivity of the labour force in a country, making it less competitive in the global arena, and at the end of the day, keeping the country from reaching its full growth potential.

5.6 China's continued development

The period of cheap rapid growth is coming to an end as the main driver of growth over the last over 30 years had been abundance of cheap labour, which, with labour migration from country to city reaching the steady state, is coming to an end. Thus, if China will not change its policy, it is likely to experience the middle income trap, which can be caused either by high income and social inequality or by trying to maintain high growth rates through job creation. As China cannot continue relying on external demand and keeping up its growth rate through exports, the country will need to expand its domestic demand for a sustainable future development, else, it will fall in the middle income trap (Yao 2014).

Income inequality keeps a country in the middle income trap and thus is detrimental for the later stage of economic development, while it has the opposite effect if present in poor countries, which is so for two reasons. Firstly, poor economies can compensate for the lack of domestic demand by exporting. However, after they reach the level of middle income the cost of labour force makes the country uncompetitive in the international market, and thus, it needs to increase the local demand for sustained economic development, which is exactly the case for China in the 22nd century. Secondly, Human capital is not crucial for growth until the later state of development, where China needs to redistribute the higher tax revenues from the middle level incomes to the poor in order to enable them to reach

for higher educational attainment in the presence of capital market constraints, and thus grow the economy through their increased investment and demand (Yao 2014).

Present China's educational attainment situation is not sufficient for the country to reach high income levels, especially if looking at higher education levels in the country. Medium-level manufacturing and services will be the main sources of employment in the near future requiring medium level professional training, which the youth of the near future will not possess based on current social and economic situation. Thus, China needs to diminish the extent of current income inequality if sustained growth is its strategy (Yao 2014).

In summary, China is going to be stuck in the middle income trap if it does not correct for educational attainment disparities and the general lack of spread in the society. The high subsidies for few elite universities model, which is being implemented to increase the level of educational attainment in the country, will not improve the situation, but will oppositely increase educational inequalities between the rich and the poor. Inequalities are what China needs to correct for in order to be able to create domestic demand, or in other words, a consumption-driven economy, as a next step towards a sustained economic development (Yao 2014).

6 Conclusion

Our approach has huge limitations in terms of validity of the best policy mix for long term growth and the suggestion of whether income inequality is that bad after all, as we use academic findings derived from research conducted on different countries, regions, sample sizes, which have been using different research methods and underlying assumptions. As the research we have summarised in this paper is not always comparable and has already been conducted under many limiting factors and simplifications, our conclusion might show itself to be too general and thus, not applicable in any specific case or development scenario due to country specifics of a country under investigation.

However, keeping in mind the limitations of our research design, we conclude that a reasonable level of income inequality is not that bad in the early part of economic development of poor countries, as long as development of strong government institutions are allowed. Income inequality can be a factor hindering economic development in the steady stage of the development cycle of economies and more so reducing the wellbeing of individuals, though only if good quality public education is not available and social mobility is not possible. Thus, income inequality is not that bad after all, as it is not inequality that hinders economic development and diminishes individual happiness, but ill designed and / or applied government policies.

Our study is subject to many limitations and therefrom stemming generalisations, which could be the place to improve for further research.

Bibliography

- Barro, R.J. 2000, "Inequality and Growth in a Panel of Countries", *Journal of Economic Growth*, vol. 5, no. 1, pp. 5-32.
- Berg, A., Ostry, J.D. & Zettelmeyer, J. 2012, "What makes growth sustained?", *Journal of Development Economics*, vol. 98, no. 2, pp. 149-166.
- Bjørnskov, C. 2008, "The growth–inequality association: Government ideology matters", *Journal of Development Economics*, vol. 87, no. 2, pp. 300-308.
- Casey, G.P. & Owen, A.L. 2014, "Inequality and Fractionalization", *World Development*, vol. 56, no. 0, pp. 32-50.
- Chaudhry, A. & Garner, P. 2013, "The political economy of income comparisons and economic growth", *Economic Modelling*, vol. 31, no. 0, pp. 214-222.
- David Castells-Quintana, V.R. 2014, "Agglomeration, inequality and economic growth", *The Annals of Regional Science*, vol. 52, no. 2, pp. 343-366.
- David Fielding, S.T. 2006, "A simultaneous equation model of economic development and income inequality", *The Journal of Economic Inequality*, vol. 4, no. 3, pp. 279-301.
- Galor, O. & Zeira, J. 1993, "Income Distribution and Macroeconomics", *The Review of Economic Studies*, vol. 60, no. 1, pp. 35-52.
- Gruen, C. & Klasen, S. 2012, "Has transition improved well-being?", *Economic Systems*, vol. 36, no. 1, pp. 11-30.
- Herzer, D. & Vollmer, S. 2013, "Rising top incomes do not raise the tide", *Journal of Policy Modeling*, vol. 35, no. 4, pp. 504-519.
- Hillebrand, E. 2008, "The Global Distribution of Income in 2050", *World Development*, vol. 36, no. 5, pp. 727-740.
- Lukiyanova, A. & Oshchepkov, A. 2012, "Income mobility in Russia (2000–2005)", *Economic Systems*, vol. 36, no. 1, pp. 46-64.
- Marrero, G.A. & Rodríguez, J.G. 2013, "Inequality of opportunity and growth", *Journal of Development Economics*, vol. 104, no. 0, pp. 107-122.
- Muinelo-Gallo, L. & Roca-Sagalés, O. 2013, "Joint determinants of fiscal policy, income inequality and economic growth", *Economic Modelling*, vol. 30, no. 0, pp. 814-824.

- Naito, K. 2012, "Two-sided intergenerational transfer policy and economic development: A politico-economic approach", *Journal of Economic Dynamics and Control*, vol. 36, no. 9, pp. 1340-1348.
- Noh, Y. & Yoo, K. 2008, "Internet, inequality and growth", *Journal of Policy Modeling*, vol. 30, no. 6, pp. 1005-1016.
- Oded, G. 2011, "Chapter 5 - Inequality, Human Capital Formation, and the Process of Development" in *Handbook of the Economics of Education* Elsevier, , pp. 441-493.
- Oshio, T. & Kobayashi, M. 2010, "Area-Level Income Inequality and Individual Happiness: Evidence from Japan", *Journal of Happiness Studies*, vol. 12, no. 4, pp. 633-649.
- Rözer, J. & Kraaykamp, G. 2012, "Income Inequality and Subjective Well-being: A Cross-National Study on the Conditional Effects of Individual and National Characteristics", *Social Indicators Research*, vol. 113, no. 3, pp. 1009-1023.
- Schneider, S.M. 2011, "Income Inequality and its Consequences for Life Satisfaction: What Role do Social Cognitions Play?", *Social Indicators Research*, vol. 106, no. 3, pp. 419-438.
- Simon Kuznets 1955, "Economic Growth and Income Inequality", *The American Economic Review*, vol. 45, no. 1, pp. 1-28.
- Shin, I. 2012, "Income inequality and economic growth", *Economic Modelling*, vol. 29, no. 5, pp. 2049-2057.
- Stevans, L.K. 2012, "Income inequality and economic incentives: Is there an equity–efficiency tradeoff?", *Research in Economics*, vol. 66, no. 2, pp. 149-160.
- Walker, D.O. 2007, "Patterns of income distribution among world regions", *Journal of Policy Modeling*, vol. 29, no. 4, pp. 643-655.
- Wang, P., Pan, J. & Luo, Z. 2014, "The Impact of Income Inequality on Individual Happiness: Evidence from China", *Social Indicators Research*, .
- Wheeler, C.H. 2004, "On the distributional aspects of urban growth", *Journal of Urban Economics*, vol. 55, no. 2, pp. 371-397.
- Whyte, M.K. & Im, D. 2014, "Is the social volcano still dormant? Trends in Chinese attitudes toward inequality", *Social science research*, vol. 48, no. 0, pp. 62-76.

Woo, J. 2011, "Growth, income distribution, and fiscal policy volatility", *Journal of Development Economics*, vol. 96, no. 2, pp. 289-313.

Yao, Y. 2014, "Chapter 7 - The Chinese Growth Miracle" in *Handbook of Economic Growth* Elsevier, , pp. 943-1031.

Zagorski, K., D. R. Evans, M., Kelley, J. & Piotrowska, K. 2013, "Does National Income Inequality Affect Individuals' Quality of Life in Europe? Inequality, Happiness, Finances, and Health", *Social Indicators Research*, vol. 117, no. 3, pp. 1089-1110.

Zaman, K. & Khilji, B.A. 2013, "The relationship between growth and poverty in forecasting framework: Pakistan's future in the year 2035", *Economic Modelling*, vol. 30, no. 0, pp. 468-491.