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Is rising income inequality far from inevitable during structural transformation? A proposal for an augmented inequality dynamics

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Abstract. This paper examines whether rising income inequality is the stylised fact for the process of structural transformation by revisiting classical accounts on the transformation-inequality nexus, with a particular focus on Kuznets's and Rostow's theories of development and Rawls's difference principle. In addition, a complex interaction between structural transformation and income inequality is analysed by exploring the multi-dimensions of inequality dynamics to link Kuznets-Rostow-Rawls. This critical review allows us to conclude that rising income inequality is far from inevitable by introducing a proposal for what it calls 'augmented inequality dynamics' which attempts to systematize circulating societal processes through social, economic, political and moral dimensions. This explains how income inequality is used to incentivise or restrain the process of various societal interactions by itself going up and down repeatedly in the context of structural transformation.
Keywords. Economic inequality, Structural transformation, Kuznets curve, Rostow's stages of economic growth, Rawls's difference principle.
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1. Introduction

For over a decade, impressive progress has been made on socio-economic development in the developing world, with more decent jobs being made available and more people lifted out of poverty. Economic growth has also been remarkable: the average rate of growth in low-income countries since 2000 (4.8 per cent) is far higher than the global rate (2.9 per cent) (World Bank, 2017). These emerging economies are, thus, increasingly referred to as the new growth engine of the world as many have the tendency to grow more rapidly than high-income countries, thereby converging living standards between the two different worlds (Korotayev & Zinkina, 2014). Such 'catching-up' or 'economic convergence' across countries have been observed in the global development trajectory since the 1960s (Maddison, 2008).

Such tremendous achievements can be attributed to several developing economies making an ongoing effort to structurally transform their economies in a competitive and sustainable fashion. When it comes to questions of what drives

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structural change, there have been a number of hypotheses and models that contribute to explaining factors affecting the process of economic growth and development. Some of them provide a relatively clearer explanation on how economies evolve and how their structures shift while others are vague and sometimes fail to apply to the regional or country specific development pathways. These competing (or complementing) arguments finally result in definitional challenges and slightly different use of terminology such as *structural change*, *economic transformation*, *structural shift*, and *structural adjustment*. However, in much of the literature on historical and modern economic growth and development, the most common terminology used to explain this concept is *structural transformation*.

At the very general view, structural transformation is regarded as a process characterised by a decline in the relative share of agricultural value added and a rise in the modern industrial and service economy (Armah & Baek, 2015). Based on this, sectoral shifts measured by the value added contribution of industry as a per cent of GDP in low-income countries have been made with an increase of 1.6 percentage points from 19.5 per cent of GDP in 2000 while the world as a whole has registered a decrease of 3.0 percentage points over the same period (World Bank, 2017). This transformation into the manufacturing sector in particular is the key enabler of growth in low-income countries, which was empirically studied by Szirmai (2012), who explored 67 developing countries in the period 1950-2005.

Unfortunately, however, structural transformation is not always accompanied by inclusive growth and prosperity for all; rather it often coexists with rising inequalities. With an average Gini coefficient over the period 2000-2009, greater income inequality is observed in Latin America with 52.2 per cent and Africa with 43.9 per cent. Almost all of the most unequal countries worldwide were in these two regions which are considered to be entirely part of the developing world. In particular, Sub-Saharan Africa has the highest levels of inequality in the world, even after accounting for its initial level of development. Such high levels of inequality have been proven to be less poverty-reducing as the benefits of growth accrue to a few individuals, hence the slower-than-anticipated pace of poverty reduction in this region, despite a decade of strong growth (ECA *et al.,* 2016).

With this in mind, this paper is motivated by a renewed emphasis by policymakers in developing countries in general and the poorest countries in particular to adopt a more inclusive growth trajectory during the course of structural transformation, which was set as the main theme of the 2017 United Nations high-level political forum on sustainable development, "*Eradicating poverty and promoting prosperity in a changing world*" and of the 2017 Africa Regional Forum on Sustainable Development, "*Ensuring inclusive and sustainable growth and prosperity for all*". Therefore, the central objective of this study is to examine first whether rising income inequality is the stylised fact for the process of structural transformation by revisiting classical accounts on the structural transformation–inequality nexus, which has in fact been of great interest not only to the policy arena but also to the field of social science in general. A complex interacting nexus between the two is then analysed by exploring social, political and moral dimensions of inequality in addition to economics, in better explaining the impact of structural transformation on inequality and vice versa in the 21st century context with reference to what can be learnt from the past experiences of countries in the centuries previous.

The rest of the paper is organised as follows. In Chapter two, I review the literature on the classical account related to the discussion on normative inequality as well as the structural transformation–inequality nexus with a particular focus on Kuznets's and Rostow's theories of development and Rawls's difference principle. Then, I analyse a number of limitations of the classical account in explaining the complex nexus between growth and inequality in the 21st century context, in order to propose a better account in this policy discourse. Finally, the paper concludes with a summary and policy implications.

2. Conceptual/theoretical discussions

2.1. Inequality as enabling versus constraints to growth in the context of Rawls's difference principle

The theoretical basis of investigation on this nexus stems from two broad schools of thought. According to Friedman (1953), inequality provides incentives for more effort to gain more. Meanwhile, he further claimed that individuals have alternatives of actions not only with different rewards, but also with different risks. Thus, individuals try to get the highest income possible, which implies that inequality in a society is the outcome of the free choice of individuals according to their risk appetite, and, as such, the redistribution practised depends on the preferences of a society. However, redistribution protecting individuals from taking responsibility for losses due to their own choices would lead to behaviour inspired by moral hazard, possibly making people overly carefree. Such practice is therefore to the detriment of people's efficiency and society as a whole. This line of reasoning for the positive relationship between economic inequality and efficiency can also be associated with justice in that effort and skills translate into rewards. If the distribution of skills and effort in society were not equal, it would be unjust to reward (or treat) everybody equally. This straightforward intuition can be reflected by one famous sentence by John Smith "*He who does not work, neither shall he eat*". In this sense, the role of the state in ensuring redistribution of incomes may need to be limited (Lissowska, 2015). To sum up with this reasoning, a society as a whole may be better off with income inequality than with income equality.

At the very general view, I recognise the positive role of income inequality on efficiency (say, inequality as enabling or incentivising). However, this view overly focuses on the market economy and simple libertarian reasoning in analysing complex societies. In fact, rewards, which can be the basis of the incentive argument, could include not just money (income), but also several other forms (other than monetary value) such as moral value, trust, and good health. Furthermore, determining factors on economic inequality may not just relate to skills or effort, but also inherited wealth, which further affects unequal opportunities to access education and social networks (Okun, 1975). All these factors can be additional but significant ones that are likely to lower people's incentives for efficiency.

If the inequality as incentivising mechanism did not properly function in a society due to these reasons, then the not necessarily positive impact of income inequality on a society becomes a reality; and rather, its negative impact could inevitably dominate. Wilkinson & Pickett (2010) investigated 23 countries and concluded that income inequality may have negatively impacted in various indicators on social development dimensions, including health, education, social mobility, trust, and violence. Furthermore, the research findings from Berg & Ostry (2013) are consistent with this negative association ship, in that a decrease in income inequality may be hindered from sustainable growth, with the use of the two regional comparative studies (Asia and Latin America).

Whether the incentivising or constraints mechanism comes into play is a field of study essential for policymakers, social leaders, politicians and other important society stakeholders. Some countries or societies are likely to evolve and develop with very high levels of income inequality (*e.g. Brazil, Bostwana, China*) while others are somewhat stagnating with very low levels of income inequality (*e.g. Japan, Sweden, Norway*). Due to the multi-dimensional nature of inequality, there is no single consensus on the role of economic inequality. Nonetheless, both negative and positive advocates regarding the role of inequality have provided a significant amount of research evidence to support each of their positions: positive role (Li & Zou, 1998; Forbes, 2000; Chen, 2003; Voitchovsky, 2005) and negative role (Alesina & Rodrik, 1994; Persson & Tabellini, 1994; Thorbecke & Charumilind, 2002; Easterly, 2007; Lissowska, 2015).

How then could economic inequality stimulate efficiency or impede socio-economic development? In other words, why is inequality considered good in some countries but bad in others? The theory of distributive justice, proposed by John Rawls four decades ago greatly answers to these questions. In his book, '*A Theory of Justice*' (1971), he argued that people tend to favour an equality in terms of income and wealth distribution but also tend to permit certain levels of inequality. To put it another way, what his argument implies is that up to a certain level of income inequality, a society would not be damaged by moral, trust, monetary or other values, which is the so-called *difference principle*[1].

According to the difference principle, inequality in a society is acceptable only if such inequality is to the advantage of the least advantaged members of a society. This is in line with the inequality as incentivising mechanism and by combining both arguments this mechanism is likely to function up to a situation where the least advantaged members of a society are motivated and incentivised to engage in social and economic activities (as income inequality increases, the rich get richer but share more with the poor). For instance, if a higher salary is paid to a medical doctor (than to a grocery clerk), this salary disparity may help increase access to healthcare service for all (even for the poor such as a grocery clerk). However, if the level of inequality exceeds an acceptable (tolerable) range, a kind of threshold where inequality ceases to become enabling, and become disabling, the incentivising mechanism is not likely to function but is rather likely to be detrimental to socio-economic development.

This principle is, although subject to much criticism particularly Rawls's account of the least advantaged and its lack of representativeness (Weatherford, 1983; Schaller, 1998), very influential on the moral guidance for societal processes and structures that fundamentally affect different redistribution practices of societal benefits or burdens, which ultimately cause more or less income equality in any given society. In particular, redistribution practices (or tax reforms) underpinned by political reaction with regard to the difference principle may, however, sometimes be limited. Anthony Downs (1957) proposed the idea that politicians are likely to be not too far from voters at the philosophical centre, otherwise they would be outside the so-called *Median Voter Theorem*. Simply speaking, political parties of the left may tend to shift their policy stance towards the right and, vice versa in order to win an election. Therefore, each party's political stance becomes increasingly similar (converging) so that taxing policies and income distribution practices may not significantly differ among them. This shifting tendency to either the left or the right could minimise the likely impact of the redistribution of income.

Overall, inequality can enable or constrain the course of a developmental society, which tends to shape the level of inequality. In turn, the economic inequality level (increases or decreases) influences the societal distribution practice of income and wealth. However, it is important to note that there is a certain limit of inequality that determines whether inequality is functioning as incentivising or as a constraint for the development of a country.

2.2. Inequality in the context of structural transformation: Kuznets's and Rostow's theories of development

Discussions directly linking economic transformation and inequality are worthwhile in addition to the previous normative ones: enabling/constraining factor of inequality and Rawls's account. Such direct linking can be traced back to Simon Kuznets (1955; 1973) who systematically discussed inequality in the course of structural transformation. Kuznets's hypothesis was that there is an inverse relationship between inequality and development, which became known as the inverted U-shaped curve. In particular, Kuznets argued that structural

[1] "Each person is to have an equal right to the most extensive basic liberty compatible with a similar liberty for others".

transformation is inevitably associated with and is a pervasive phenomenon (one of the six stylised facts) of modern economic development.

Kuznets's prime explanation can be described as follows. At very low levels of income, inequality must also be low, particularly in rural areas while a little bit higher in urban ones, whereby most live on a fairly even amount of subsistence. As the process of growth begins (as an economy industrialises), the path to economic inequality is driven by changes in sectoral structure. Income inequality increases as people migrate from a relatively equal low-income rural sector towards a relatively unequal urban sector which offers higher wages. This migration is in line with the transition from a traditional agricultural sector to a modern industrial one. Once the majority of the labour force is found in an industry or service sector in an urban area, further transfers result in a decrease in income inequality as the rural-urban divide becomes less influential. Therefore, the average income per capita increases further and income inequality within the urban sector remains.

Another possible take on this hypothesis can be linked to Walt W. Rostow's growth model (1960). This model, namely *Rostow's stages of modernisation* concerns a country that passes through a predefined set of five stages as follows.

At the initial stage, a society signifies a primitive society having no access to modern technology. As such, the society is driven by a highly intensive labour force, mostly in agriculture and other primary industries. Meanwhile, a significant portion of the country's wealth is likely to be invested in non-productive activities such as religion or military (*traditional society*). A development process begins with some innovative activities by the rich, which is likely to boost economic productivity. This rising trend of productivity is supported by income shifting from a feudal society to a productive society. Also, some external forces or demands for primary goods or raw materials can initiate structural change to a country's economy. Further investment in infrastructure and technology is then made for the country to move up to the next stage (*preconditions for take-off*). Rapid growth is generated by one or two manufacturing sectors where most workers are employed. This stage is further characterised by an increase in urbanisation, industrialisation and technological breakthrough that is significantly supported by continuous investment which comes with changes in income distribution. A substantial portion of income is entrusted with a capitalist who can re-invest it to increase the rate of capital formation, which could further be promoted by government policies (fiscal measures) and institutions (banking institutions and capital markets) (*take-off*). Modern technology is applied widely across almost all industries and sectors, including entrepreneurial development so that an economy can start to diversify into new innovative and more productive areas, so that the country can eventually be self-sustained for future growth. This self-sustainability is accompanied by intensified industrial development (shift from heavy engineering to machine tool and electrical equipment) with further capital formation (*drive to maturity*). An industrial base dominates the whole economy with some transition from industrial production to consumer goods and services such as an increase in real incomes, which could lead a society to be concerned with normative consumption practices (by the people) regarding high-value goods and services. At this stage, a society pays more attention to social welfare and security than on economic value. An increasing trend in income inequality may thus be relaxed (*age of high mass consumption*).

These two influential theories that may support the positive relationship between structural transformation and inequality have some clear distinctions. The Kuznets process emphasises the importance of economic growth in generating demographic transitions that affects changes in income distribution and inequality, while Rostow's model focuses on the role of technological advances in some leading industries and sectors as an essential driver for others and eventually for a country as a whole. Moreover, Kuznets described the ups and downs of income inequality as being inevitable for the development process, while Rostow did not regard it as 'inevitable' *per se* but rather put a different emphasis on income distribution practice as one of the 'conditions' necessary for a society to move up to the next stage.

On the other hand, there is also a significant area of convergence between these two theories. Both are likely to argue that almost all societies naturally pass through certain steps (or stages) of structural transformation, starting from traditional economies that focus on subsistence farming to modern and advanced ones through industrialisation. In fact, this central idea of process is common in other growth theories. With some optimistic views on the structural transformation-inequality nexus in mind, policymakers (or politicians) in middle- or low-income countries since the start of their long-term processes of transformation, have often subscribed to the notion, that 'rising income inequality is inevitable during economic transformation' in order to justify their economic policies that could inevitably widen the levels of inequality in the short term. In addition, many further emphasise to the public the belief that their proposed transformation policies would eventually achieve an egalitarian form of income distribution practice in the long term. (Korzeniewicz & Moran, 2005).

3. Towards a better account in linking Kuznets-Rostow-Rawls

3.1. Limitations of the classical account on structural transformation-inequality nexus

Notwithstanding their influential explanations of a country's transformation process, the theories remain the subject of controversy when it comes to the concept of inequality. This section focuses on six broad interconnected contexts.

3.1.1. Exclusive focus on Western society for inequality

Both theories are rather Eurocentric. Their exclusive focus on Western society tends to exclude the relevance of local or regional configurations of society and inequality, particularly in the Global South where most poor nations are located. The results from both frameworks were mainly derived from the historical geography of the global West. As both processes are a mechanism for explaining a long-term transformation process, most of the past literature may have had to focus on rich countries that have already accumulated a significant amount of historical records that can provide enough analytical evidence on their development trajectories (Itagaki, 1963): the United Kingdom (Polak & Williamson, 1991), Germany (Dumke, 1991), Sweden (Soderberg, 1991), Australia (Thomas, 1991) and the United States[2] (Ram, 1991).

Due to the exclusive focus on the West, both theories may not therefore be effectively applied to the context of the developing world. Bah (2011) found that many developing countries are following processes that are very different from the path of structural transformation experienced by most developed countries. In Africa, the continent has been yet to structurally transform largely due to the fact that the majority of economies therein are still agricultural based. In particular, industrial sectors have been very slow to grow while transfers of labour and other resources have mainly taken place between agricultural and service sectors (thus somewhat leap-frogged a stage from a traditional society to the age of high mass consumption), whose share in GDP is high at the relatively lower income level, which is not the case for Asian countries who followed the path of the Western model. In sum, the two theories may have framed the processes without seriously taking into consideration any distinctive regional or national characteristics of inequality.

3.1.2. Globalisation for inequality

Both theories focus overly on the dynamics of a single country, without seriously taking into account global dynamics, by assuming that success or failure is largely dependent on internal factors. Nowadays in particular, one of the most

[2] Particularly, Piketty & Saez (2003) criticised the Kuznets hypothesis, '*inequality reduces in mature stage of development*' by putting a compelling case of the United States where the level of inequality has grown in recent decades.

serious challenges in Europe is the issue of migration to the West, which significantly pushes or even creates transnational structures for greater inequality (Guidetti, 2014). External factors created by globalisation are even more vital with regard to inequality challenges (Mills, 2009). In general, globalisation is underpinned by a worldwide evolution of increases in human capital mobility, consumer goods and services. Giddens (1991) pointed out that globalisation can intensify societal relations, which link distant localities so that some economic events in rural areas can significantly be influenced by events that occur in other areas or even in other countries. This implies reciprocal influences of certain tendencies and simultaneously a localisation or urbanisation process, which could deviate from the traditional pathway proposed by two eminent scholars. In this regard, no analytical view on inequality would be intelligible without taking into consideration the impact of globalisation.

3.1.3. New international division of labour for inequality

A new international division of labour derived by globalisation could distort both theoretical arguments on the transition of market and labour. In other words, this new division of labour can be profoundly affected by certain external forces and internal demands for outsourcing and offshoring activities that favour international trade and technology-based manufacturing businesses. For instance, if multi-national companies in advanced countries keep highly-skilled and innovative practices (from the introduction of new technologies) with few high-income workers, which implies a reduction of jobs and wages for low-skilled workers, factory workers' jobs can be outsourced (or relatively easily replaced with technology-related jobs) with lower-salary workers in developing countries. On the other hand, this outsourcing practice for developing countries could be rather positive since such a practice can provide more employment opportunities and narrow the gap between highly-skilled and low-skilled wage earners while favouring the process of industrialisation (Mills, 2009).

3.1.4. Diffusion of information (knowledge) for inequality

We are now living in a society in which information (knowledge) can spread within minutes all across the world. Thus, diffusion of information (knowledge) has firmly entered the arena of policymaking. This diffusion can help an individual country prepare its strategy or policy that is relevant to its present socio-economic conditions. However, other countries' foreign policies or global dynamics in general may too be influential in this regard. For instance, some Asian countries such as South Korea and Taiwan have followed similar patterns that were contrary to the Kuznets curve. In other words, a number of East Asian countries have experienced rapid economic transformation (substantially through the export sectors, which benefitted from globalisation) without a significant increase in inequality, which is often described as the so-called *growth with equity.* Birdsall, Ross & Sabot (1997) explained that productivity and income in rural areas were rising much faster than expected, thereby deviating from the conventional process of demographic transition between rural and urban areas. In addition, Stiglitz (1996) explained this growth pattern in the equity phenomenon by referring to the re-investment mechanism applied, in that these countries immediately re-invested initial benefits from rapid growth into land reform, universal education and equally-distributed industrial policies, all of which in turn support high rates of growth to the benefit of society as a whole. What is interesting is that his re-investment argument was already identified as one of the conditions in the take-off stage of Rostow's model. Although Rostow did not explicitly spell out the inequality problem in the take-off stage, he might have implied that continuous capital formation not only promotes re-investment activities but also causes the concentration of capital into the hands of a few capitalists, which could intensify inequality. Importantly, the problem of Rostow's model here lies in his assumption that re-investing boosts economically-focused industrial activities, and not the likes of institutional reforms or education as proposed by Joseph E. Stiglitz.

As already discussed in my argument regarding the exclusive focus on the West, some African countries have experienced sectoral shifts only favourable to the services sectors while the value added contribution of industry, particularly manufacturing to GDP has declined since 2001, which is sometimes described as *de-industrialisation* (Armah & Baek, 2015), and may contradict Rostow's process. Even the structural transformation process of skipping manufacturing development and going directly into the services sectors undertaken by most Caribbean countries can refute Rostow further. Such a non-traditional modernisation pathway may be attributable to the knowledge transfers. Many developing countries appear to have adopted policy mechanisms that were developed and used by governments in middle-income countries, according to Palma (2011). This similarity (what it calls, *knowledge sharing* and *lessons learned* mechanism) often deviates from the traditional process. Even still, such a knowledge sharing mechanism may help reduce the traditional process of transformation with some countries opting to leap-frog a stage, possibly benefiting from technology transfer (say, green technology). In this case, the pattern (movement between the stages) of development by a country would be very different from the conventional pathway, which would further alter the inequality evolution.

3.1.5. Universalist approach to inequality

Both theories are too generalised (or simplified) to explain the transformation process applicable to all countries in line with the persistent poverty found in many. Their assumption that all countries automatically start at the same stage and with the same capability to progress further through the stages of economic transformation may not be agreeable. This is because some countries start their development from the second stage of Rostow's theory, thanks to an abundance of natural resources, while others start from the bottom. Moreover, some countries neighbour others that have a high productivity of labour that can easily be transferrable, while some are geographically disadvantaged, thus significantly limiting access to this type of labour force. In this regard, the two theories may not properly reflect the inequality evolution, as embedded in the transformation process.

As a result, empirical evidence on the Kuznets process has shown mixed results, which further depend significantly on data (choice of variables) and methodological approaches (Herzer & Vollmer, 2012). An inverted U relationship largely depends on other characteristics (such as political and social institutions and cultural heritage) rather than economic perspective (income level) only (Kaelble & Thomas, 1991). Without serious considerations of the other factors embedded in a particular society, one cannot determine accurately what level of income inequality is accrued from any particular amount of structural transformation (Temple & Ying, 2014). To be more specific, Kuznets's argument was largely favourable to Latin American countries, which were at an intermediate stage of development, thus questioning its validity for different groups of countries (Milanovic, 1994). Latin America is a region with historically high levels of inequality due to its colonial past, which was likely to have generated extreme inequalities of wealth, capital and political power (Engerman & Sokoloff, 2002). In this regard, both theories did not take into consideration the fact that countries have different histories and therefore distinctive institutional features, thus structuring different configurations of inequality. In the 21st century, capitalism, followed by institutions based on the Western model attempted somewhat to standardise institutions across the world. However, by doing so, they could still never erase history. As a result, the question of validity and various factors affecting inequality evolution in a certain country or region started to arise (extractive institutions due to European colonisation in the case of Latin America). Both theoretical and empirical experiences of emerging and developed countries point to potential tradeoffs between growth and inequality while some countries have managed to reduce poverty and inequality through structurally transforming.

3.1.6. Human capital aspect for inequality

Both processes rarely consider human capital aspect, which is one of the main approaches used to explain different individuals' salary profiles over time (Mincer, 1974). This human capital idea takes into consideration individual educational choices based on a constrained maximisation process in that the return on investing in education is greater than any alternative financial investment. Therefore, the earning profile of a person critically depends on the amount they have invested in education that essentially determines their wages. In this regard, this rational choice regarding education by individuals matters significantly, which includes such decisions made by house-workers, students, pensioners and informal workers who are largely absent from the two modernisation process. Rather, the two models are broadly based on a relationship between capitalists and workers. Additionally, individual rational choices for investing in education can substantially be affected by the characteristics of the individual (*e.g.* family background, birthplace, inherited wealth), which often go beyond an individual's mere abilities (Guidetti, 2014). For instance, unequal opportunities for schooling may hinder a country's transformation process by lowering people's incentives for efficiency and changing the baseline scenario for the distribution of resources (Brunori *et al.,* 2013).

3.2. Augmented structural transformation–inequality nexus

Based on a critical review of two influential theories in relation to the structural transformation-inequality nexus, it was found that neither may be effective in explaining inequality evolution in the context of the 21st century. As pointed out, understanding inequality evolution in a society is imperative because it can have a significant influence on whether a country's developmental aspirations are to be achieved or not. But it would not be possible without an effective consideration of Rawls's account. In other words, the dual roles of inequality (as incentivising and/or constraints) can significantly affect the determination the ease of states' transformation among developmental actors. In this regard, there might be little point in comparing the inequality levels between countries since each country has its own moral and justifiable degree of inequality. When the level of inequality exceeds a tolerable level (based on the difference principle), which is naturally set by a society and should be different from one society to another, inequality as a constraint mechanism rather than inequality as incentivising comes into play. On the other hand, when the level of inequality is somewhere within an acceptable range by the majority of the public, both mechanisms interact with each other, along with other socio-political dimensions, to guide a country's developmental path and its potential capacity to do so. Synthetically, the accumulated experience of being incentivised and restrained by inequality configuration in a society shapes a country's own *inequality dynamics*. Therefore, once inequality dynamics are formed as historically driven systems of social, economic, and political relations that frame the regulation and coordination mechanism that governs a society, the dynamics can be so durable in a way that they structurally transform themselves and become subject to path dependence (depending on past interacting trajectories and decisions made).

Nonetheless, my six points of criticism above cannot however invalidate their inspired analysis of the long-term economic transformation process. Rather, the criticisms should be used not just to draw some insights from this developmental process, but also to recast, without ruling out the relevance of the two processes, some original arguments by shifting the analytical focus from 'on transformation' to 'on income inequality', and particularly on the inequality dynamics within a society.

Our discussion on inequality dynamics should start with the basic idea that the degree of past inequality itself significantly affects the current level. This is somewhat related to previous arguments on human capital aspect (Mincer, 1974; Brunori *et al.,* 2013; Guidetti, 2014). According to the two development theories, income inequality is very low at the very beginning of the pre-modern stage. With a very low level of income inequality, people would have no reason to complain. Rather, people would tend to perceive their society as fair, gradually making them believe that they are living in a society that is not unjust. As a result of this perceived fairness accumulated, people ultimately become to believe that individual skills and effort are fairly rewarded and that they all have the right to enjoy the fruits thereof (Alesina & Angeletos, 2005). In other words, people tend to believe that economic inequality and poverty is due to an irrational choice or lack of effort in a society where inequality functions as incentivising people to put in more effort in order to receive the benefits there from. As a result, more creative and innovative activities therefore come into play.

Politics also react to this phenomenon (mainly to obtain more votes) by trying to sustain the incentivising mechanism thus ensuring the limited effect of the redistribution of incomes in a society. Otherwise, a society would be considered unjust as pointed out by Friedman (1953), who implies that politics choose low redistribution practices and low taxing policies (Alesina & Angeletos, 2005). This is a typically ideology favourable to republican in the United States (or conservatives in the United Kingdom). Such social consciousness forces the public to tend to accept lowering taxes, regardless of their social status and income levels, which is likely to go against the narrowing inequality levels in a society in a situation where the difference principle is applied.

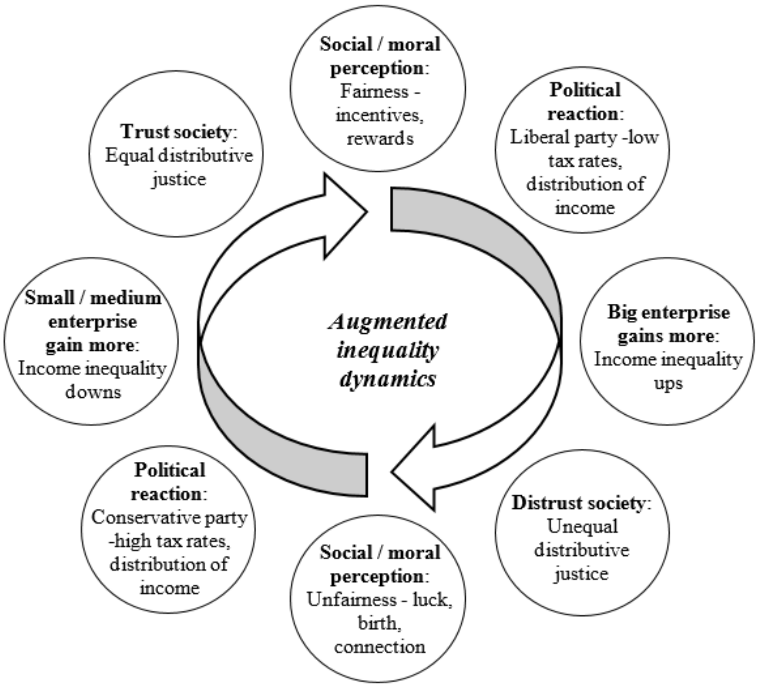
Additionally, relatively big enterprises that benefit most from low tax rates could save proportionally more of their earnings than small and medium size enterprises, according to post-Keynesians (Kaldor, 1956). Such savings could accelerate more investment that is beneficial to structural transformation overall (Lissowska, 2015). This process can be interpreted as favourable for the overall value of savings and eventually for society and its transformation as a whole. However, due to some externally negative impacts such as the pessimistic outlook for the global economy, the trend of outsourcing practices and others discussed previously, it is likely that big enterprises will retain vast amounts of working capital for short- and mid-term operations and giant investments and decide not to invest. Such decision-making would result in greater income inequality.

The role (size) of the government can also be limited partly due to the downsizing of the role of income distribution between profits and wages, which further influences the limited redistribution practices. A society may experience soaring inequality because subsidies or other forms of social support from the government to the poor are restrained while the rich save more than invest in order to accumulate more wealth. Even the salary gap of workers between big versus small and medium size firms becomes larger thereby burdening the poor mainly because of limited redistribution practices. This is the moment when the poor start to complain about income inequality and feel a sense of discontent about such circumstances.

Furthermore, in the case of being severely affected by external forces, this taxing practice would not effectively lead to private sector development, which is required for structural transformation process. As a result, more discontent in social system prevails, followed by greater unfairness perceived by the public. Eventually, the political system will suffer significantly from very strong pressure to distribute income more evenly, especially to the poorer segments of society. On the other hand, if the investment conditions are favourable to big enterprises and the economic structures that are underpinned by effective institutions, a society would experience the trickle-down effect of capital (Aghion & Bolton, 1997) so that small and medium size enterprises gain more profits, which would then be shared with their employees.

In cases where the level of inequality reaches or even exceeds a tolerable range, a society is likely to transform into believing that their negative situation is largely due to luck, birth and a lack of connections rather than skills and effort (Alesina & Angeletos, 2005). From this moment on, the incentivising mechanism rarely works and a society may be considered unjust and unfair, which can incur society's mistrust in politics, and particularly in the rich. As the perception of unfairness in a society grows, there is a trend that liberals (or the democrat party in the United States) would be more likely to come to power whose preferable doctrine is to raise tax rates for redistribution practice. On the other hand, this social consciousness may limit not just the incentivising mechanism but also the creative and innovative activities and the overall benefits from savings and investment activities. For instance, when a society relies more on human capital (mostly in cases of countries with an advanced stage of development), the poor who feel discontent and distrust due to high levels of economic inequality may hesitate in investing in education and other socio-economic engagements, which may significantly hinder transformational process (Lissowska, 2015).

So far, I have attempted to logically explain and systematise some circulating processes through social, economic, political and moral dimensions of inequality (see Graph 1). In other words, inequality dynamics circulating the societal process can help explain how inequality can incentivise or restrain the process of various societal interactions by itself going up and down. These *ups* and *downs* were partially described in the Kuznets process but not in detail (only it *ups* in the initial stage and then the *downs* in the later stage of development, mainly due to the demographic transition). Unlike the Kuznets process, the centre of my argument is that income inequality is not only a necessary but rather an essential element to be linked with other dimensions by increasing and decreasing continuously. In addition to conceptualising the circulating process itself, these inequality dynamics can have further important implications that can explain the reasons for the differences in levels of inequality and structural transformation across countries. In other words, some deviation from any part of the inequality dynamics circulating process (among the four dimensions) would cause a different inequality dynamics process, which can be the basis of explaining a country's particular situation and comparing it with others. This is what it calls 'augmented inequality dynamics'.



Graph 1. *Augmented inequality dynamics in the 21st context*

In sum, each factor functioning in the augmented inequality dynamics circulating societal system plays a pivotal role in determining the degree of inequality and level of economic transformation. The factors further determine the pathway of transformation in a country, whether its economy grows with high or low inequality or stagnates with high or low inequality (growing economies with low levels of income inequality are ideal but rarely observed in the real world). This is why a large amount of empirical evidence has appeared to often reject the Kuznets curve and Rostow's model of stages (or the myth that advanced countries are likely to have lower levels of income inequality while developing countries higher levels of income inequality). It is therefore imperative to systematise how the augmented inequality dynamics consistently entail the social, political, moral and economic dimensions of a society, thereby shaping its own structural transformation–inequality nexus.

4. Conclusion

The inequality mechanism as both *enabling* and *constraints* exists in society. As for the enabling mechanism, economic inequality can provide incentives for more effort to gain more. Thus, individuals would try to get the highest income possible, which implies that inequality in a society is an outcome of the free choice of individuals according to their risk appetite. If the inequality as incentivising mechanism were not properly functioning, then its positive impact to society may be called into question. Rather, it would more likely act as constraints to developmental activities. However, it should be noted that there is a certain limit of inequality that determines whether it is functioning as incentivising or constraints for the development of a country, which is the aforementioned difference principle.

Furthermore, it is found that the two influential growth theories in the contemporary social sciences, namely those proposed by Simon Kuznets and Walt W. Rostow, may not properly be able to explain inequality dynamics in the 21st century given the multi-dimensional characteristics with which inequality is inherently concerned.

From my critical review (six broad aspects) and linking Kuznets-Rostow-Rawls, the dual roles of inequality (as incentivising and/or constraints) can significantly affect the determination of states' structurally transforming. As time goes by, experiences of the dual roles of inequality and societal interactions for inequality, '*up and down*' are accumulated in a society, which shape its own inequality dynamics. Once the inequality dynamics are formed as historically-driven systems of social, economic, and political relations that frame the regulation and coordination mechanism that governs a society, the dynamics can be so durable in a way that they themselves transform and become subject to path dependence.

With the new concept of an augmented structural transformation–inequality nexus, proposed in this paper, policymakers should try to maintain a manageable and acceptable level of inequality by taking seriously into consideration the idea of the difference principle in a more analytical way while pursuing inclusive growth and transformation. This sustainable policy would not only minimise the detrimental impact of inequality as constraints but also maximise the favourable utilisation of inequality as enabling more productive and inclusive processes (*e.g.,* growth with equity through re-investing institutional reforms, human capital, social and environmental dimensions of a society). If such ideal policy can be designed and implemented effectively, my answer would be in the negative with regards to this paper's main question: *is rising income inequality inevitable during structural transformation?* This is because a society can benefit from economic growth, development, industrialisation and structural transformation in a way that people's lives become more convenient, productive and efficient, supported in particular by tremendous technological advancement. In this hypothetical world, the incentivising role would be the predominant one over any other role of inequality in the sense that economic capital does not only enable people to buy something, it also gives them a greater sense of prestige that is socially most valuable than capital for a leading position in society (Bourdieu, 1984).

Finally, there are several areas of future research, which can extend or improve this study. First, the augmented inequality dynamics can be empirically grounded and nationally or locally sensitive. Furthermore, it would be extremely valuable to measure empirically the level or range of tolerating income inequality (in line with the difference principle) in an individual country, in order to determine exactly what level of income inequality is at any particular level of economic transformation and to inform policymakers how to manage this in a sustainable manner. In sum, this particular area of research can contribute to the continuous and persistent global effects to resolve the dilemma of inequality, equality and growth.

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