

# Resilience to Economic Shrinking DRAFT

A Social Capability Approach to Processes of Catching up  
in the Developing World 1951-2016

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## Abstract

This paper highlights and assesses the importance of the role of economic shrinking for the long-term growth process in the developing world over the period 1951-2016. On the basis of descriptive analysis it shows that resilience to shrinking, even among the miracle economies in Pacific Asia, plays a more important role for successful catching up than economic growth per se. The paper then proposes and elaborates on a novel way of how to understand resilience to shrinking and argues that five interrelated social capabilities are of special significance: inclusive and broad based economic growth; engagement in more complex and transformative economic activities; generation of social arrangements for conflict resolution; the state's autonomy against vested interests; and the state's accountability in delivering public goods. The implication of the paper is that economic development would be better encouraged by strengthening these social capabilities rather than focusing on the short-term growth rate.

## Introduction

Over the last seventy years, experiences of economic catching up, in which poor countries grow fast enough to narrow the gap between themselves and rich countries, have largely been erratic and unsustainable. To understand the dynamics of these diverse processes development research has focused its attention on understanding the sources and causes of economic growth. Given that no poor country will be able to catch up with the rich without long term economic growth, increasing our knowledge about this process is critical. However, the one-sided focus on growth risks neglecting a largely overlooked component of the development experience: the role of economic shrinking.

Economic growth, in plain arithmetic terms, is the result of both growing and shrinking and when we look at the data available for most developing countries on the economic performance since the 1950s, it appears that at least part of the prevailing canon about “growth” is too simple. Asia has forged ahead from other developing regions since the 1950s not only because it grew more, it also shrank less. In fact, as argued in this paper, it seems as the success of economic development very much depends on the resilience towards economic shrinking. One major cause of “falling behind”, particularly in most parts of Latin American and sub-Saharan Africa is actually absolute economic shrinking of GDP per capita, that is, when income per capita contracts from one year to another. The reasons behind resilience against shrinking, or lack thereof, are largely unknown. Still it potentially holds the key to further our understanding of why poor countries can or cannot catch up. In fact, estimates show that if sub-Saharan Africa had kept its real average growth record but mimicked the real shrinking experiences of Asia since 1950, GDP/capita today in sub-Saharan Africa would have been roughly three times higher than what it actually is. Although such an exercise is a mere simulation it clearly indicates the importance of resilience to economic shrinking for long-term development and improved living standards. Since no production function can explain why economies shrink, the theoretical approach requires new thinking beyond models based on merely accumulation or productivity of factors of production. To paraphrase Joseph Stiglitz (2005), growth may be everything, but it is not the only thing if we are to understand the process of economic development.

Past research has indeed noted the occurrence of economic shrinking, but to date it does not exist a systematic analysis of its importance in understanding patterns of catching up and falling behind among countries in the developing world. In addition, the literature does not provide an answer to how some countries have been able to change their social arrangements

in ways that limited shrinking and, despite falling average growing rates, managed to increase their long run rates of growth. The current paper will seek to remedy this lack of existing framework for how to understand the mechanism, cause and role of economic decline in the development experience of the developing world.

The paper puts forward a theoretical approach to help understand why some economies are prone to shrink while others develop resilience to it. It is here argued that this is a function of a country's set of social capabilities, based on an extension of the classic works of Abramovitz (1989, 1995). The main idea is to incorporate resilience to economic shrinking into the analysis of the catching up process in the developing world over the last seventy years supported by the notion that resilience towards shrinking greatly increases the likelihood for catching up to be sustained. To understand what conditions resilience to shrinking, we take as a point of departure the concept of "social capability" (Ohkawa and Rosovsky, 1973; Abramovitz, 1986) and develop it into an analytical framework allowing empirical scrutiny. We attempt to understand the nature of "social capability", by decomposing it into five aspects that are argued to directly relate to economic shrinking: (i) broad based inclusion of the population in the market, (ii) transformation of economic structures, (iii) social stability, (iv) accountability and the (v) autonomy of the state.

The paper is organised as follows: The next section briefly surveys the literature on catching up and the extent to which the phenomenon of economic shrinking is included in this discussion. This is followed by a descriptive analysis made from basic estimations based on country averages in Latin America, sub-Saharan Africa and Pacific Asia to highlight the importance of economic shrinking and to examine the relative importance of magnitude and frequency of economic shrinking respectively. The penultimate section develops an approach of how to analytically and empirically connect social capabilities with resilience to shrinking. The paper ends with some concluding thoughts and implications for future research.

## **Economic catching up and the role of shrinking – what do we know and what does the literature say?**

Although the growth process in the last decade has reached a large part of the developing world, the general legacy of economic growth in the post-war era is one of starkly different growth and catching up experiences. Some areas, most notably the east Asian region, have been able to create and sustain a growth process that has brought some of its countries into the ranks of developed economies (Japan, South Korea, Taiwan, Hong Kong and Singapore). Countries in the other developing regions, Latin America and Africa, have, with very few possible

exceptions, seen no such transformative success, leading to a divergence within the developing world.

Divergence in the form of a widening gap over the long run between rich and poor countries – both the present divergence between east Asia and other developing regions, and the historic divergence between “the West and the rest” – stem from higher average economic growth per annum in the progressing countries. As a consequence, in the very extensive literature on the nature and causes of economic growth in the developing world in the post-war era, the role that economic shrinking has played has received limited attention. Also in the historical research into the nature and cause of economic growth in the developed world, a consideration of economic shrinking is rarely included. It is not surprising that economic growth research has trumped economic shrinkage research, but its near neglect is both striking and problematic because it is evident that starting a process of growth is not the same as sustaining it (Hausmann et al., 2005; Jones and Olken, 2008).

To back up a little, the literature on economic catching up, or the theory of convergence, suggests that differences with regard to productivity levels between countries tend to vary inversely with productivity growth rates. Opportunities for higher growth are therefore available for developing economies by drawing on the potential of the so-called advantage of backwardness through access to already developed technology and know-how. The experience of economic growth in the western world over the past century or more has given support to the hypothesis of converging productivity levels (see for example Baumol, 1986; Barro and Sala-i-Martin, 1992).

In the world at large, the picture is different. At least until recently, the empirical evidence seemed to suggest the existence of divergence rather than convergence in the global economy (for instance Pritchett, 1997; Rodrik, 2011; Milanovic, 2016). In general, the poorest countries have not been catching up or converging in terms of productivity levels with the most economically advanced countries. The convergence theory seems to have been applicable to east Asia only, and even there it has been questioned (Krugman, 1994).

Although almost all policy recommendations from development strategies are tailored towards encouraging catch-up – from import substitution to structural adjustment programs - there are surprisingly few empirically generated theoretical approaches that might apply to developing economies. A standard reference should be the classic works of Gerschenkron (1962), which suggests that there is potential advantage of backwardness if “necessary prerequisites” can be overcome by acts of substitution. Later, Ohkawa and Rosovsky (1973) and Abramovitz (1986) elaborated upon the concept of “social capability” as a qualification of

the “theory of convergence”. The social capability thesis holds that a country’s potential for rapid growth is strong when “it is technologically backward but socially advanced” (Abramovitz, 1986: 388). The potential to catch up under globalisation is strongest for countries in which “social capabilities are sufficiently developed to permit successful exploitation of technologies already employed by the technological leaders” (Abramovitz, 1986: 390). The realisation of the potential for catch up includes a number of structural and institutional determinants, such as educational levels, state capacity and social unity. In Abramovitz’ subsequent writings (1995: 29), he suggested that social capability is associated with the “ability to exploit modern technology” and “people’s basic social attitudes and political institutions”.

Thinking about the growth process in this fundamental way is perhaps an illustration of the unease many influential development economists, from Kuznets to Rodrik and Pritchett, have expressed about the growth process being adequately captured by mere models of factor accumulation or total factor productivity calculations. It also implies that the development process is multidimensional, including political, institutional and social forces. Approaching the development process in this wider sense, predates the writings of Abramovitz and was perhaps most painstakingly explored in the pioneering, and yet unparalleled study by Adelman and Morris (1967), who compiled and modelled data on social, political and economic indicators for a wide range of developing countries for the period 1957-1962. Since this massive work, empirical studies to in different ways capture the importance of social capability for catching up have been extensive although attempts to further specify the concept have been rare (some exceptions are Temple and Johnson, 1998; Temple, 1998; Putterman, 2013; Fagerberg et al., 2014). What is more, capability approaches have mainly been used as a way to understand and measure social capital but not as a broader approach to explain how and why economic growth may be sustained in some settings while not in others.

In the literature on the nature and causes of economic growth in the developing world in the post-war era in general, the role of, and resilience to, economic shrinking has received limited attention. Pritchett (2000) notes that negative growth is a frequent phenomenon in developing countries and that the growth literature is not well equipped to understand it. There is a related literature, however, trying to measure and understand the “episodic” nature of economic growth (e.g. Pritchett et al 2016). Important studies within the realm of this discussion are Easterly et al. (1993) and Rodrik (1999), who highlighted and explained growth “collapse” and “reversals” by the occurrence of economic shocks or social conflict. Research has also advanced on finding ways to empirically capture episodes of different growth dynamics and to

associate a number of correlates with either growth spurs or growth stops (Hausman et al., 2006; Jones and Olken, 2008; Berg and Ostry, 2011; Kar et al., 2013). What is missing from this literature is an analysis of the relative importance of economic shrinking for medium term growth and a theoretical understanding of why some developing countries are more resilient to shrinking than others. In the penultimate section, the literature here cited are however part of the construction of a more comprehensive analytical framework.

The most explicit scrutiny of long-run perspectives of economic shrinking and elaborate explanation to why the industrialised west has managed to overcome it is found in Broadberry and Wallis (2016). They argue that institutional changes that condition Modern Economic Growth and in particular the change to “impersonal rule” is the fundamental reason for the ability to reduce economic shrinking. Broadberry and Wallis tend to focus on the systemic and more formal institutional change of the rules that govern relationships in society (in particular limiting the influence of the powerful elites) and that eventually paves the way to the “open access order”. This approach provides an explanation of the division of the world into developed and developing world but it does not address the diverse shrinking experiences in the developing world which is the focus of the present study.

The literature stressing the argument that the developing world has largely experienced no or negligible growth over most part of the last seventy years is, however, extensive and influential (for instance Acemoglu and Robinson, 2012 and Collier, 2007). One indicative expression of this is found in Collier (2007: 11) stating that “the problem of the bottom billion has not been that they have had the wrong type of growth, it is that they have not had any growth”. This type of literature, even if it might correctly point at the problem of the lack of average long term growth in many parts of the developing world, misses the fact that most if not all developing countries actually experience occasional high growth spells but that they have not developed resilience to relatively frequent economic shrinking. The problem, from the point of view of the argument in this paper, becomes exactly that it is not that developing countries lack growth but that they have the wrong type of growth - unsustainable growth due to economic shrinking.

## Significance of economic shrinking: how much and how often?

To approach a general understanding of the catching up process the first question to ask is how to empirically approach and assess catch-up experiences of the developing world. Despite marked slowdown over the last couple of years, the relative progress of less developed countries as a general average over the most recent two decades has reached a historical high in terms of average GDP per capita growth, although economic growth in the 1950s was almost as high. The ultimate question is if the recurrent growth spells over the last decades, in for instance sub-Saharan Africa, is expressing real catch-up growth or growth that will be unsustainable due to proneness to shrinking. The series here used to elaborate on these issues are based on annual data on GDP per capita in 2015 US\$ retrieved from The Conference Board Total Economy Database, 1951-2016, a comprehensive and widely used open access source of macro-economic data. Our sample includes 20 countries in sub-Saharan Africa, 10 in Latin America, and 17 in Asia.<sup>1</sup>

Economic performance ( $EP$ ) over the long run consists of the net effect of the contribution of growth and the contribution of shrinking (Broadberry and Wallis, 2016). The contribution of growth is the product of the frequency  $f(g)$  and magnitude  $m(g)$  of economic growth and the contribution of shrinking equals the frequency  $f(s)$  times the magnitude  $m(s)$  of economic shrinking (a summary of the data is supplied in the appendix).

Algebraically, this can be expressed:

$$EP = f(g) m(g) + f(s) m(s)$$

Since  $f(g) + f(s)$  equals 1, the equation can be reduced to three independent variables

$$EP = [1-f(s)] m(g) + f(s) m(s)$$

This identity will be used for both factual and counterfactual analysis to suggest that:

- Asia has steadily reduced the impact of shrinking from 1950s onwards

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<sup>1</sup> Asia: Bangladesh, Cambodia, China, Hong Kong, India, Indonesia, Japan, Malaysia, Myanmar, Pakistan, Philippines, Singapore, South Korea, Sri Lanka, Taiwan, Thailand, Vietnam.  
Latin America: Argentina, Brazil, Chile, Colombia, Costa Rica, Jamaica, Mexico, Peru, Uruguay, Venezuela.  
Sub-Saharan Africa: Angola, Burkina Faso, Cameroon, Côte d'Ivoire, DR Congo, Ethiopia, Ghana, Kenya, Madagascar, Malawi, Mali, Mozambique, Niger, Nigeria, Senegal, Sudan, Tanzania, Uganda, Zambia, Zimbabwe.

- It is not growth but resilience to shrinking that makes up the larger part of the difference of the Asian development performance in relation to sub-Saharan Africa and Latin America.
- The magnitude of growth is relatively universal and stable over time for the groups of developing regions in the sample, whereas the magnitude of shrinking is highly variable
- Frequency of shrinking has a greater impact on long term economic performance compared to magnitude of shrinking
- In sub-Saharan Africa, the contribution of shrinking (frequency x magnitude) since 2000 is the lowest recorded in the region since 1951.
- In Latin America in the 1950s and 60s, the contribution of shrinking was lower than post-2000.

The grouping of countries in broad geographical regions such as Asia, Latin America and sub-Saharan Africa is very crude and naturally hides a lot of within region heterogeneity. Nevertheless, overall the grouping seems reasonable in the sense that countries in the regions in general have similar growth and shrinking patterns. From 1951 to 2016 the frequency of shrinking in sub-Saharan Africa was 34 per cent; in Latin America 25 per cent and in Asia 15 per cent. In Latin America, 29 per cent of shrink-years took place in the 1980s. In Latin America, the major shrinkers are Venezuela, Jamaica and Argentina whereas the most infrequent shrinkers are Colombia, Mexico and Chile. Noteworthy is that average magnitude of shrinking (during years of negative growth) in Latin America has been less than in both Africa and Asia.

In Asia, 25 per cent of the total shrink years took place in the 1950s. The worst shrinkers are Cambodia and Bangladesh whereas the economies with the strongest resilience are Taiwan, South Korea and Thailand. In sub-Saharan Africa, the most frequent shrinkers are Madagascar, DR Congo, Cote d'Ivoire and Zimbabwe. For Madagascar and DR Congo, the shrinkage experience 1951-2016 has overshadowed the growth experience, leaving these two countries with a negative net growth rate over the period. Over the three dismal decades from 1971-2000, the ratio of shrinking years to growing years was 1 (300 observed years of shrinking and growing respectively), leaving sub-Saharan Africa with a negative growth rate over three decades.

As a more formal test of whether the regions are homogenous enough to be considered as coherent units of the analysis of economic shrinking patterns, the standard deviation of frequency of shrinking in each region per decade was related to the standard deviation of

frequency of shrinking in the entire sample per decade. If regional standard deviation is lower than in the entire sample it suggests some region-wise similarities. For the three regions and seven time periods, 21 observations, region-wise standard deviations were greater than for the entire sample on six occasions. In Asia, the within variation was high in the 1950s and 60s, possibly because of particularly high frequency of shrinking in a few countries such as Pakistan, Bangladesh and Vietnam. From 1970s onwards the variation in Asia has been well below the full sample. In Latin America, the periods that stand out are the 1970s and post-2010 when shrinkage patterns in the region were more polarised between countries with no or little shrinkage and countries with exceptionally high frequency of shrinkage (such as Jamaica and Venezuela recording 80 and 70 per cent shrinking respectively). In the last period, there seem to be a clearer division between the repetitive shrinkers (Venezuela, Argentina and Jamaica) and the more stable ones (Chile, Colombia, Uruguay, Mexico). In sub-Saharan Africa, the only period in which the region showed higher variation than in the full sample, was during 2001-2010 which was caused by the extreme outliers of Cote d'Ivoire and Zimbabwe which, as opposed to the rest of the African countries, were recurring shrinkers during the period.

On the whole, although it is never fully satisfying to lump together countries for only geographical reasons, for the purpose of this paper it still seems reasonable to discuss patterns of shrinking in terms of regional similarities. In addition, there are clear commonalities when it comes to factor endowments, historical legacies with colonialism, trade possibilities, and GDP per capita levels in both Latin America and sub-Saharan Africa. In Asia, the per capita income levels are more segmented, although the national growth trajectories over time in the region have been highly uniform as suggested by the small shifts in the internal ranking order from decade to decade. The Spearman's rank correlation coefficient remains consistently close to 1 between consecutive decades (with regard to ranking of the internal GDP per capita hierarchy in Asia).<sup>2</sup> This suggests that the entire Asian region has moved forward at about the same pace, not unlike the stereotypical image of the Asian economies following suit as a flock of flying geese. This does not support, however, the notion that all Asian countries have been casted in the same mould only that it may be reasonable to use the region as unit of analysis.

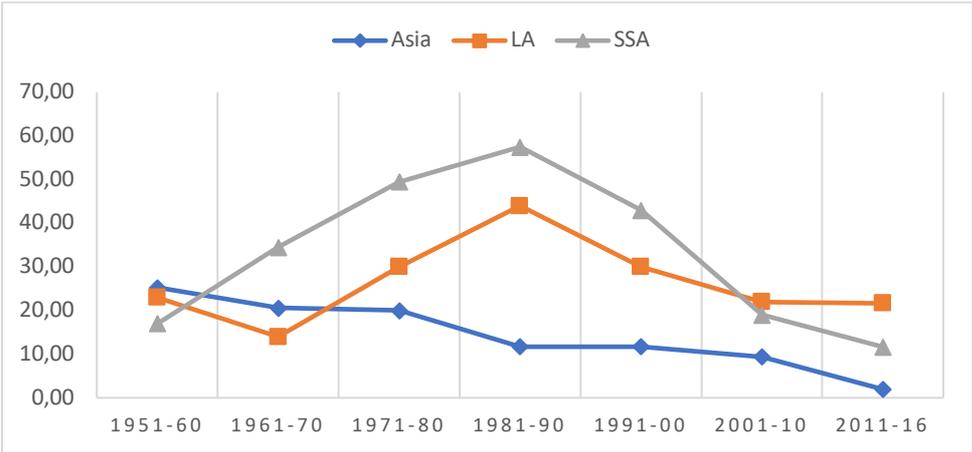
The first observation from the data is that economic shrinking has indeed been prevalent in the development experience in the last 60 years, and that this seems to be related to the success of economic development. Figure 1 displays the frequency of shrinking (the share of

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<sup>2</sup> Spearman's rank correlation coefficient basically measures the correlation between two rankings. The coefficient was never below 0.95 between any consecutive decade. Shifts in the internal ranking were more frequent in both Africa and Latin America.

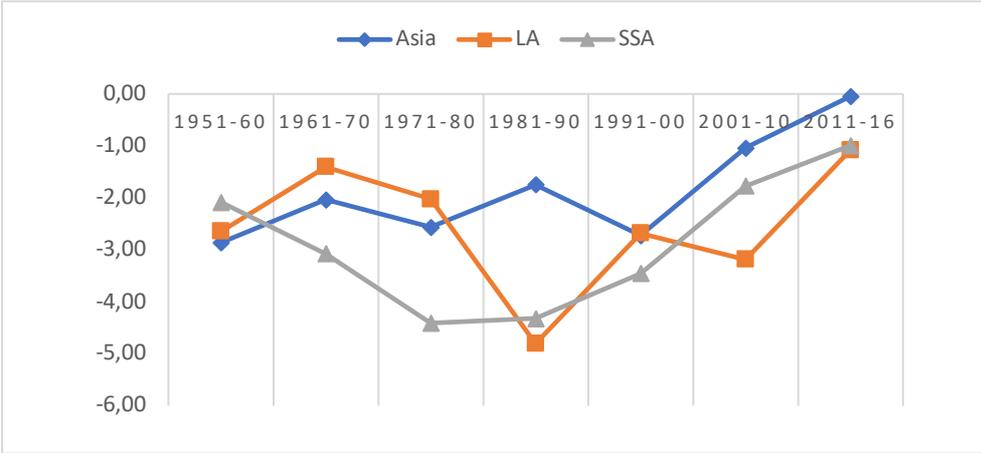
years of economic shrinking in any of the countries in the region, per decade), while figure 2 shows average magnitude of shrinking in the shrinking years.

**Figure 1: Frequency of shrinking in Asia, Latin America, sub-Saharan Africa, per decade 1951-2016**



Source: The Conference Board (2016).

**Figure 2: Average magnitude of annual shrinking Asia, Latin America, sub-Saharan Africa, per decade 1951-2016**

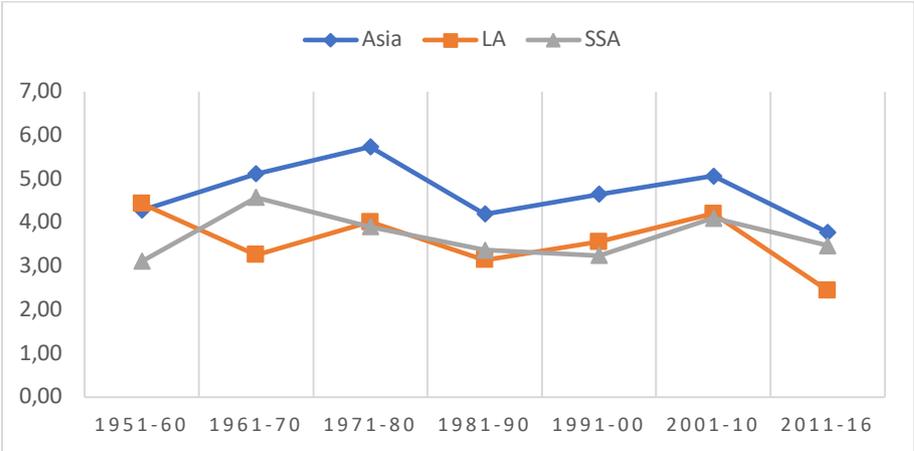


Source: The Conference Board (2016).

The estimates shown in figures 1 and 2 reveal that economic shrinking has been both more frequent and of a higher magnitude in sub-Saharan Africa, and to a lesser extent Latin America, than in Asia. The difference is notable in all decades from the 1960s onwards, and perhaps particularly striking in the 1980s, when both Latin America and sub-Saharan Africa suffered a decade of very frequent, and deep, economic shrinking. Against the empirical reality that east Asia has experienced a significantly more successful development trajectory than the other regions during this time, the estimates indicate that the prevalence or lack of economic shrinkage plays a role in successful development. The Asian trajectory is that of a continuous decline in the frequency of shrinking. In Asia, the average net annual growth rate was 3.4 per cent from 1951-1980 compared to 3.9 per cent from 1981-2016, despite the fact that the growth rate during the years of positive growth was higher during the first period compared to the latter.

Further, comparing these trends on economic shrinkage to the different trajectories of economic growth, it is rather striking how much more uniform the growth experience has been than the shrinking experience, across the continents (figure 3). While Asia on average has grown about one per cent faster per decade than its Latin American and African counterparts, this performance gap per se is less significant than Asia’s strikingly more successful development experience. As such, the findings indicate that vulnerability to economic shrinking in both sub-Saharan Africa and Latin America, play an important role in the understanding of why Asia has outperformed them both.

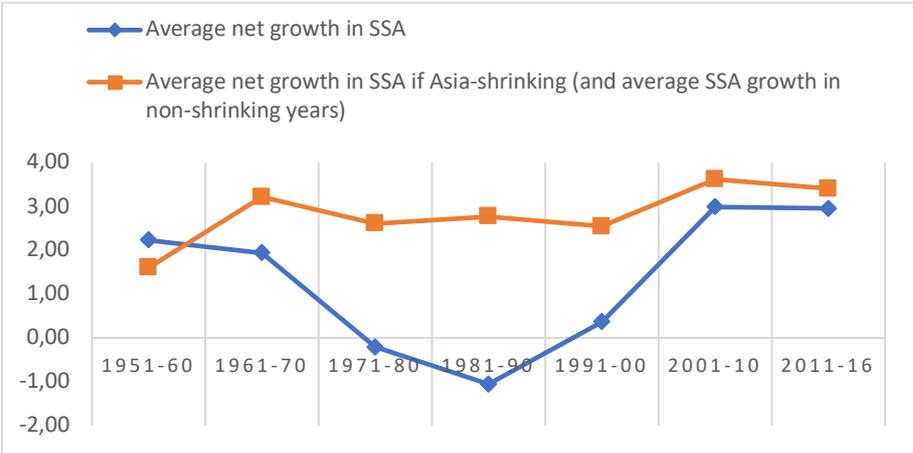
**Figure 3: Average magnitude of annual growth in Asia, Latin America, sub-Saharan Africa, per decade 1951-2016**



Source: The Conference Board (2016).

The crucial importance of resilience to economic shrinking for economic development is captured by a counterfactual simulation, attempting to assess what the growth rate in sub-Saharan Africa would have been per year in each decade if it “borrowed” Asia’s shrinking pattern. It shows that average growth per capita would have been sustained at above 2.5 per cent per annum, instead of zero, or even negative, growth rate of the 1970, 1980s and 1990s (figure 4). The premise for this simulation is if sub-Saharan Africa kept its actual growth rate but were able to have the same frequency and magnitude of economic shrinking as Asia.

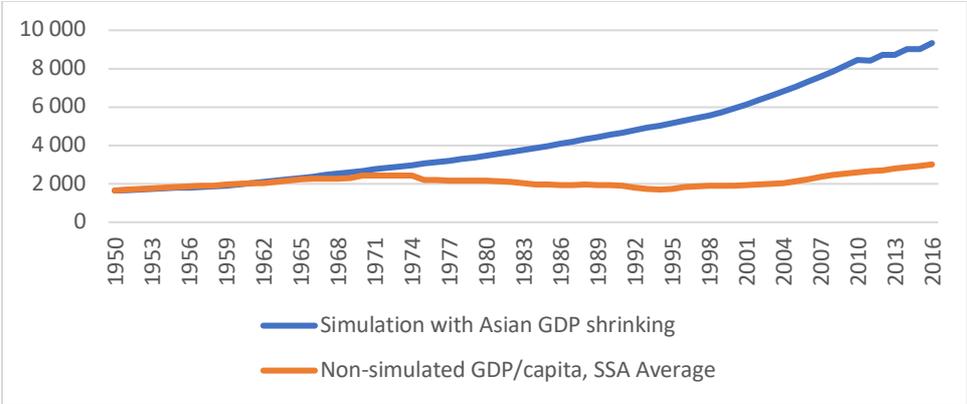
**Figure 4: Simulated sub-Saharan African annual growth rate, per decade, if same shrinking pattern (in terms of magnitude and frequency) as Asia**



Source: The Conference Board (2016).

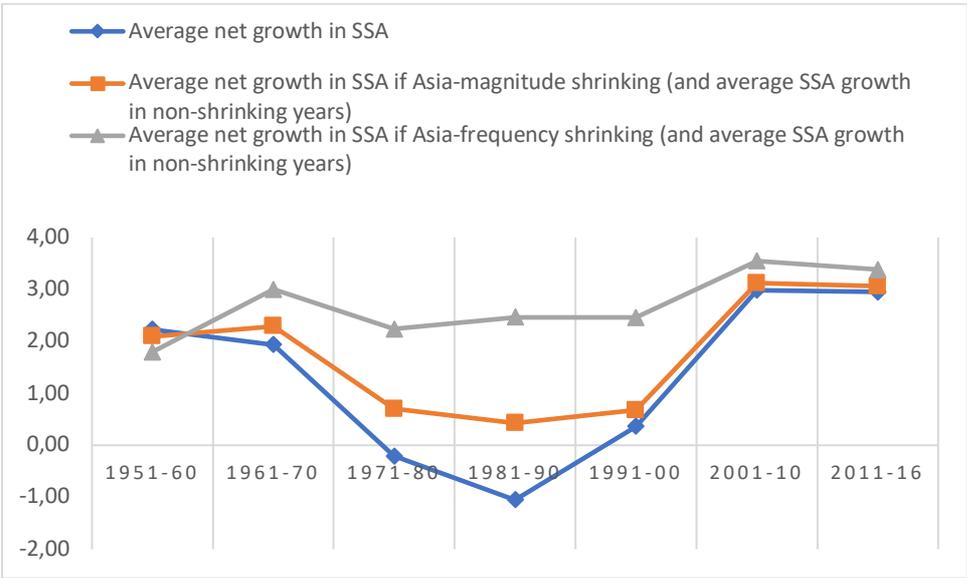
In GDP per capita terms, the effect if sub-Saharan Africa would have been able to shrink as little as Asia – even if it did not improve its average growth in the years that it did grow – would have been more than three times as high: 9245 US\$, instead of the actual 3011 US\$ per person in 2016 (figure 5). While this counterfactual finding might provide limited nuance, it realistically underscores the importance of understanding the dynamics of economic shrinking, and how to be resilient to it, rather than a one-sided focus on improving annual growth rates.

**Figure 5: Simulated GDP/capita in sub-Saharan Africa, if same shrinking pattern as Asia (in 2015 US\$)**



Also based on counterfactual simulations comparing sub-Saharan Africa and Asia, is the finding that resilience towards frequency of shrinking seems more important than the magnitude of shrinking, in order to uphold long term economic development (figure 6). By simulating average annual growth rates per decade in sub-Saharan Africa using Asian magnitude and frequency of shrinking, respectively, the result suggests a comparatively greater positive effect of the ability to reduce the frequency of shrinking.

**Figure 6: Simulated annual sub-Saharan Africa growth per decade, if Asian frequency, vs magnitude, of economic shrinking**



Source: The Conference Board (2016).

Arguably, *frequency* of shrinking is more related to arrangements able to sustain growth and to withstand comparatively smaller setbacks while *magnitude* relates to vulnerability to major shocks and the ability to minimise the detrimental effects of them. The analytical implication of this might be that frequency (the number of shrinking years per decade) is related to a general lack of economic dynamics whereas magnitude (shrink a lot during years of shrinkage) relates to a problem of more systemic nature. The findings suggest that volatility (shrinking often) might be more detrimental than shocks (shrinking severely). If the view is accepted that causes behind volatility is less exogenous than causes of shocks, this would imply that proneness to shrinking is more domestically caused as well as domestically redeemable. It also implies that exceptionally high occasional growth rates, sometimes reaching double digits in poor countries of the world, signal cause of concern rather than applause as it reflects an economy prone to strong volatility likely caused by high dependence on international commodity prices.

Although the estimates reported here are at a highly aggregated and merely indicative level, it begs the questions whether successful economies have in common a special set of social capabilities that might explain the resilience to frequency of economic shrinking. Further work is needed to separate out relevant regional, time-specific and country-specific experiences. But it seems clear that countries in Pacific Asia seem to have developed a comparatively strong resilience to shrinking. It is the shrinking experience that stands out.

## Approaching resilience to shrinking: a hands-on analytical proposal

In the following the contours of a framework of social capabilities is proposed in order to eventually arrive at a better understanding of these different shrinking experiences. The five elements of the framework are (i) broad based inclusion of the population in the market, (ii) transformation of economic structures, (iii) social stability, (iv) accountability and the (v) autonomy of the state. This framework, which is inspired by the abovementioned works of Abramovitz (1986, 1995) emphasises inclusiveness concretely in terms of accessibility to productive resources such as land, education, technology, credit, markets and so forth and centres on how to scrutinise state capacities and transformative dimensions of economic progress. These elements are thought of as having both a direct and dynamic relation with the resilience to shrinking.

The first aspect, *inclusion*, refers in the broader sense to the distribution of productive capabilities among the population and the access to economic opportunities on the premise that

broad based economic participation in the market characterise a more dynamic and diversified society. This provides a more vital and competitive domestic market, therefore yielding less supply-side bottlenecks and hence less fluctuating domestic prices. High inequality is potentially detrimental to growth in a number of ways, for instance by not making full productive use of human capacities, instead constituting the source of growth inhibiting social conflict and policies and by shortening growth spells (for instance Alesina and Rodrik, 1994; Persson and Tabellini, 1994; Bourgignon, 2003; Berg and Ostry, 2011; Ostry et al., 2015). A pro-poor and participatory growth process signifies a fall in poverty, widespread access to productive resources and that the economy is open to entry for doing business. Such growth is more likely to be sustained (Pritchett and Werker, 2012) and hence less vulnerable to economic shrinking. A pro-poor growth process indicates that incomes of poor households increase to enable some to move out of poverty but perhaps even more significantly, it denotes growth dynamics that makes it less likely to make the opposite journey into poverty so that the net effect is a reduction of households below the poverty line (Dercon and Shapiro, 2007). Such growth process in low income countries is likely to be labour intensive, typically engaging rural and relatively less educated labour. As regards openness to entry to allow the development of competitive markets, developing countries are often home to a complex regulatory apparatus, while capacities to enforce the rules often are weak. This creates limits to both possibilities and willingness for small businesses to enter the formal economy and may give rise to a large extralegal sector (de Soto, 2000). An inclusive growth path embracing the untapped dynamics might therefore sometimes be more favoured by negotiated “deals” rather than more “rules” (Hallward-Driemeier and Pritchett, 2015).

*Transformation* signifies the completion of the agricultural transformation and the increase in the relative weight of more diverse and complex economic activities (Timmer, 1988, 2009; Hausmann et al., 2013). It relates to the degree of structural change in the sectoral composition of the economy, based on the idea that a transfer from low to high productivity activities is needed for long term sustainable economic growth (Kuznets, 1965; Lin, 2012; Rodrik, 2014). The agricultural transformation is the process that sustainably leads an economy away from subsistence through cheaper food to the urban population and allocation of labour and capital to non-agriculture activities. When the economy becomes less dependent on agriculture, people are less vulnerable to sudden production and consumption changes due to weather conditions or drops in demand and the resilience to economic contraction is strengthened. Transformation is also marking an economy becoming ever more complex in its range of what it is able to produce. Hausmann et al. (2013) think of complexity as the amount

of productive knowledge an economy contains. As a measure, economic complexity has shown to be an even stronger associate with sustained growth than ordinary measures of human capital. A country able to produce (and export) a large set of highly diverse and sophisticated goods and services is better equipped to reduce the prevalence of shrinking.

What has been widely emphasised in recent decades is that the state plays an important role in providing law and order, manage social conflicts, enforce contracts and support markets (World Bank, 1997; Rodrik, 1999; North et al., 2009; Lin, 2012; Bardhan, 2016). The third element of the framework, *social stability*, draws particular attention to arrangements for conflict resolution (Rodrik, 1999; Collier et al., 2003; North et al., 2009). Beyond the obvious negative effects of civil war on sustaining growth, propensity of shrinking is likely to be higher in socially unstable societies where scarce governance capacities are dissipated to solve conflicts rather than promoting efficient development policies. Conflicts are also typically a deterrent on the general willingness to invest, which is a typical precursor for halted or negative growth (Jones and Olken, 2008). One might also expect that stability of food prices translates in lower probability of social unrest which in turn should evoke greater chances for building resilience to shrinking compared to unstable food prices. Such loops are more relevant for low income countries with a relatively large population engaged in agriculture (Dawe and Timmer, 2012).

*Autonomy* is the ability of the state to keep vested interests at bay, for instance through a state's ability to impose direct and progressive taxation on the non-poor, while at the same time being sufficiently aligned with powerful actors for mutual commitment to development policies and goals. Such autonomy resembles the concept of "embedded autonomy" (Evans 1995) and connotes both coupling and disciplining the surrounding society. The autonomy ensures credible commitments to investors or special interest groups and provides opportunities for the creation of consensual and representative government through "revenue bargaining" between states and organised citizens (Brautigam et al., 2008). As such, governance for being successful should often focus on growth enhancing, rather than market enhancing, governance (Kahn, 2007).

One central aspect of autonomy is the ability to develop the fiscal capacity of the state (Besley and Persson, 2013; Fukuyama, 2013). This builds on the assumption that capacity is needed to extract taxes and that resources give the state freedom to implement policies, for instance tax and subsidise certain goods and services with the aim of altering the income distribution to promote greater equality. Autonomous growth oriented governments facilitate resilience to shrinking through promoting general growth and not the agenda of particular

interests to gradually build up fiscal and rule based governance capacity. Important to note is that good governance in the sense of enforcer of rule of law is a product of a cumulative process and most probably an outcome rather than cause of sustained growth (Kahn, 2007).

Lastly, *accountability* is understood to capture the quality of governance and provision of public goods (Besley and Persson, 2013). A fundamental aspect of accountability is the legitimacy of the (tax-collecting) government among the (taxed) governed. Concretely, one can understand accountability as the ratio of social spending and social subsidies to GDP or to total government spending. In low income countries, investments in education and health is a common measure of the state's "collective" capacity (Besley and Persson, 2014). Since undertaxing and tax evasion are typical features of developing countries, appropriate use of tax revenue is important for willingness to pay. In particular, since tax revenues as a percentage of GDP in the average low-income country is much lower than in high income countries and possibilities to increase it is troublesome (Moore, 2013), the issue of accountability is surely of great importance. What seems to be related to greater fiscal accountability is putting limitation to the executive power (Ricciuti et al., 2016). At the same time, as with rule of law being a consequence and not cause of sustained growth, so too is an accountable government engaged in "best practice" policies typically an outcome, rather than a precondition, of resilient development (Levy, 2014).

Although all five elements of social capabilities are argued to be of key importance for an economy to develop resilience to economic shrinking, they are also dynamically interconnected and play different weight depending on initial conditions and idiosyncrasies of each particular economy. Neither of them are prerequisites, necessary to be at hand before the growth process can be sustained. Rather the capabilities in successful pathways are shaped and fostered in the process. One cannot think of these elements as a function to be calculated based on similar factor proportions. Rather they constitute the pillars of an analytical framework for approaching economic shrinking for long term sustained growth that at least in principle is apt for empirical investigation. Dynamics are ultimately empirical and as far as the framework might suggest at this moment, the preciseness is lacking.

## Conclusion

The paper attempts to increase the understanding of the process of sustainable economic catching up of developing countries by opening up a new research agenda, where economic development is to be understood by taking into consideration the role of economic shrinking

and in particular suggesting what social capabilities that are crucial for building up resilience against it. Through complementing the research on catch-up growth by explicitly including economic shrinking will, due to the large impact of shrinking on long-term sustained growth, increase our possibilities to understand the process of economic development.

Shrinking matters for growth, maybe even more than growth itself. The basic descriptive estimations provided in this study suggest that the superior performance of Asia compared to both Latin America and sub-Saharan Africa is associated with reducing the relative impact of economic shrinking rather than comparatively stronger growth. Had sub-Saharan Africa been able to reduce its shrinking record to the level of Asia's, while keeping its own growth rate, the world would probably be a more equal and less poverty ridden place than what it actually is. To understand more about economic shrinking therefore seems to be a high priority for the future research agenda in development studies. As the role of frequency of shrinking seems more significant for long term economic performance than the magnitude of shrinking, this lends support to the notion that resilience to shrinking is tightly connected to domestic capabilities to build such resilience.

The suggestion proposed in this paper is that such capabilities are to be understood as the extent to which the economy is *inclusive* to the many and open to entry for business and that the course of economic growth is *transformative* and evolving in a manner that secures ever more value-added activities. In addition, building arrangements at the governmental level is vital for the economy to thrive. Mechanisms for accommodating *social conflicts* is one of the facets the growth literature unequivocally has indicated to be important for growth. The importance of the state's capacity to stand relatively independent from strong vested interest groups, unless such interests align well with general development objectives, is supported by both theoretical and empirical reasons. This would make possible for governments to increase tax revenue and build popular legitimacy at the same time. Crucial is that elite actors, based on schemes of mutual benefits, are both subordinated to and supporters of the general development objectives of the government. Governments need also be able to channel its resources to ends that contribute to long-term inclusive development and social coherence in order to secure legitimacy for building a stable and functioning social contract. Building fiscal capacity, for instance, is both key and highly complex. *Autonomous* and *accountable* governance cannot be expected to be steadfast and efficient from the get-go but rather seen as cumulatively constructed.

This paper has shown that there are reasons to believe that a country's social capabilities determine its level of resilience against economic shrinking. To test this hypothesis further,

more empirical work is required. This paper has laid out a framework to be adopted and a few suggestions on what kind of measures to be used in order to move ahead.

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## Appendix

### Frequency of shrinking [f(s)] Asia, LA, SSA

|      | 1951-60 | 1961-70 | 1971-80 | 1981-90 | 1991-00 | 2001-10 | 2011-16 |
|------|---------|---------|---------|---------|---------|---------|---------|
| Asia | 25,29   | 20,59   | 20,00   | 11,76   | 11,76   | 9,41    | 1,96    |
| LA   | 23,00   | 14,00   | 30,00   | 44,00   | 30,00   | 22,00   | 21,67   |
| SSA  | 17,00   | 34,50   | 49,50   | 57,50   | 43,00   | 19,00   | 11,67   |

### Average magnitude of shrinking [m(s)] Asia, LA, SSA

|      | 1951-60 | 1961-70 | 1971-80 | 1981-90 | 1991-00 | 2001-10 | 2011-16 |
|------|---------|---------|---------|---------|---------|---------|---------|
| Asia | -2,86   | -2,04   | -2,56   | -1,75   | -2,73   | -1,04   | -0,04   |
| LA   | -2,64   | -1,40   | -2,02   | -4,81   | -2,68   | -3,19   | -1,08   |
| SSA  | -2,08   | -3,08   | -4,41   | -4,32   | -3,46   | -1,77   | -0,99   |

### Average magnitude of growing [m(g)] Asia, LA, SSA

|      | 1951-60 | 1961-70 | 1971-80 | 1981-90 | 1991-00 | 2001-10 | 2011-16 |
|------|---------|---------|---------|---------|---------|---------|---------|
| Asia | 4,29    | 5,12    | 5,74    | 4,20    | 4,65    | 5,07    | 3,78    |
| LA   | 4,44    | 3,26    | 4,02    | 3,14    | 3,56    | 4,21    | 2,44    |
| SSA  | 3,11    | 4,57    | 3,90    | 3,37    | 3,25    | 4,10    | 3,47    |

### Frequency of growing [f(g)] Asia, LA, SSA

|      | 1951-60 | 1961-70 | 1971-80 | 1981-90 | 1991-00 | 2001-10 | 2011-16 |
|------|---------|---------|---------|---------|---------|---------|---------|
| Asia | 74,71   | 79,41   | 80,00   | 88,24   | 88,24   | 90,59   | 98,04   |
| LA   | 77,00   | 86,00   | 70,00   | 56,00   | 70,00   | 78,00   | 78,33   |
| SSA  | 83,00   | 65,50   | 50,50   | 42,50   | 57,00   | 81,00   | 88,33   |

### Contribution of growing [f(g)m(g)] Asia, LA, SSA

|      | 1951-60 | 1961-70 | 1971-80 | 1981-90 | 1991-00 | 2001-10 | 2011-16 |
|------|---------|---------|---------|---------|---------|---------|---------|
| Asia | 3,20    | 4,07    | 4,59    | 3,70    | 4,10    | 4,59    | 3,70    |
| LA   | 3,42    | 2,80    | 2,81    | 1,76    | 2,49    | 3,28    | 1,92    |
| SSA  | 2,58    | 3,00    | 1,97    | 1,43    | 1,85    | 3,32    | 3,07    |

### Contribution of shrinking [f(s)m(s)] Asia, LA, SSA

|      | 1951-60 | 1961-70 | 1971-80 | 1981-90 | 1991-00 | 2001-10 | 2011-16 |
|------|---------|---------|---------|---------|---------|---------|---------|
| Asia | -0,72   | -0,42   | -0,51   | -0,21   | -0,32   | -0,10   | 0,00    |
| LA   | -0,61   | -0,20   | -0,61   | -2,11   | -0,80   | -0,70   | -0,23   |
| SSA  | -0,35   | -1,06   | -2,18   | -2,48   | -1,49   | -0,34   | -0,12   |

Net Economic Performance [EP]  
Asia, LA, SSA

|      | 1951-60 | 1961-70 | 1971-80 | 1981-90 | 1991-00 | 2001-10 | 2011-16 |
|------|---------|---------|---------|---------|---------|---------|---------|
| Asia | 2,48    | 3,65    | 4,08    | 3,50    | 3,78    | 4,50    | 3,70    |
| LA   | 2,81    | 2,61    | 2,20    | -0,35   | 1,69    | 2,58    | 1,68    |
| SSA  | 2,23    | 1,94    | -0,21   | -1,05   | 0,36    | 2,99    | 2,95    |

Source: The Conference Board (2016). The Total Economy Database