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Growth is Dead, Long Live Growth: The Quality of Economic Growth and Why it Matters

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"Speed is irrelevant if you are going in the wrong direction" (M. Gandhi)

Why the quality of growth?

The way that economic growth is conceptualised and measured has been a topic of great debate for many years now (Seers 1972). How can equity considerations be incorporated? How can environmental externalities be taken into account? And, ultimately, how can we improve the ability of economic growth to drive the development outcomes we most care about? Many now talk about degrowth (Demaria et al. 2013), the end of growth (Heinberg 2011), or the forthcoming secular stagnation (Teulings and Baldwin 2014) —about how growth is no longer desirable, useful, or even feasible. This collection of papers prefers to frame the debate not as the end of growth, but as the end of growth as we know it. The 20th century definition of growth must be left in the 20th century and 21st century formulations adopted for the times we live in.

We are not the first to discuss the quality of growth. The debate on the quality of growth is primarily a debate about the quality of life. It is well known since the early works of Easterlin (1974) that the progress of GDP per capita in Western countries does not mean a parallel progress in perceived happiness. Since 1990, the United Nations Development Programme (UNDP) through both its Human Development Reports and the Human Development Index has brought the idea of the quality of growth into the mainstream policy discourse. An important piece of work on this issue by Thomas, et al. (2000) was also published by the World Bank at the turn of the millennium. It argued that while economic growth remains important among the factors that contribute to development, the quality of that growth is equally important. The report contended that development is better served when quantity and quality of growth intertwine and explicitly focuses on an agenda that addresses the human, social, environmental, and governance dimensions of development.[1]

In addition to the benefit of 15 more years of observation, conceptualization, data and studies, our work advances Thomas et al. (2000) in three important ways. First, the ramifications of the global financial crisis of 2007-8 flow through many of the papers in this collection, generating greater insight about what we should be measuring. Second, the evidence on climate change is more organized and compelling, generating a new literature on the potential tradeoffs between economic growth, poverty reduction and environmental costs. Finally, much more work has been done on the levels, drivers and consequences of inequality and we draw on and aim to contribute to this literature.

Indeed, the trends and events of the last decade have moved these debates from largely academic exercises to urgent matters of public policy. The dramatic increases forecast in greenhouse gas emissions, the persistence of chronic poverty despite the increasing wealth of nations, and an increasing recognition of the interplay between different types of growth and different types of

[1] World Bank Institute (2001).

fragilities have made the search for new ways of framing, measuring, analysing and assessing economic growth even more pressing. If not all forms of growth are equally valuable and some are destructive of development, what growth do we need and how do we get it?

Policy debates on the quality of growth have been very active around the world. In Asia, for example, the quality of growth has been hotly debated. This is understandable, for Asia is a region that has achieved remarkable economic development, but only with accompanying difficulties such as inequality within the region and within countries, insecurity in terms of the supply of food and energy, increased risk of infectious diseases, and the middle-income poverty trap problem (Sumner 2013). Thus the APEC's growth strategy adopted in 2010 (Xia 2011) highlighted five pillars, that included (1) balanced growth, (2) inclusive growth, (3) sustainable growth, (4) innovative growth, and (5) secured growth. Even China seems to have clearly put an end to its policy orientation of "growth at all costs." In 2011 Chinese Premier Wen Jiabao told a conference in Beijing[2] that he believes that "China's economy can achieve longer term, better quality growth". The participants of the said conference came up with an understanding that the following five elements constitute "quality growth:" sustainability, inclusion, fairness, balance, and innovation.

In Africa we have heard the term "quality of growth" less frequently but the current heated debate on African development seems to be centred not simply on assuring the continent's continued growth but more importantly on economic transformation, i.e., away from the excessive dependency on extractive mineral and energy sectors and toward more broad based economic development. It centres on "inclusive growth" or how to share the fruit of growth among the populace, and this is at the core of the quality of growth debate. In Latin America, too, where inequality has long been a major constraint to development, this is an agenda attracting attention from policy makers (Thorbecke 2013).

In Europe the debates have been around sustainable growth (Jackson 2011), degrowth (Demaria et al. 2013), measurement issues (Stiglitz, Sen and Fitoussi 2013) and the connection between inequality and economic, social, and ecological challenges (Alvaredo et al. 2013, Haddad 2015). All of these refer to quality of growth issues.

In this volume we do not offer a precise definition of the quality of growth. More importantly we focus on expanding the knowledge base on three agreed key dimensions of quality: (1) growth that manages environmental tradeoffs, (2) growth that supports equity and inclusiveness, and (3) growth that is less susceptible to shocks. By bringing together these strands we aim to contribute to a unification of the field and to identify any common patterns and synergies.

Environmental Sustainability and Climate Change

A few years earlier than the work of Easterlin (1974), the Meadows report (1972) on *The Limits to growth* drew the world's attention to the contradiction between exponential growth trends in population and GDP and the finite resources and carrying capacities of our planet. The report was ignored or ridiculed by the bulk of the economic profession at the time of its publication. However, 35 years later Turner (2008) showed that the values predicted in 1972 by the 'standard run' (business as usual) scenario were disturbingly close to the observed data. In this scenario, exponential growth is followed by a collapse of our economic system at some point in the 21st century due to soaring global emissions of greenhouse gases (GHG, such as methane, nitrates and carbon dioxide from various sources related to human activity).

[2] Annual Meeting of the New Champions (what is generally called "Summer Davos" conference) in 2011.

Likely climate change generated by greenhouse gas (GHG) emissions will have both short and long run effects. First, via temperature-induced changes in water stock availability climate change would progressively erode the natural capital base of our societies, hence adversely impacting agricultural output and food security. A recent study by MIT scholar John Reilly (2014), which was presented at the 11th AFD-Proparco-EUDN conference on Energy for Development, shows that policy efforts aiming to control climate change through (re)forestation for carbon sequestration, use of land for bioenergy production and increased energy costs, would ultimately affect prices of food, hence generating systemic pressure on the already fragile climate-agriculture link. Moreover, as a consequence of altered biophysical equilibria, life expectancy would shrink from current average, due to, among other factors, rising health costs, emerging pathologies and viruses, severe droughts, the destruction of infrastructure and conflicts. In the longer run, and more indirectly, geophysical evolutions such as changes in oceanic streams or releases of GHG trapped under the permafrost might entail a substantial and sudden rise in atmospheric temperature with dramatic ecological, economic and social consequences.

Whatever the exact nature and timing of such events, their likelihood is rapidly increasing according to the International Panel on Climate Change (IPCC, 2014) and the many research centres working on these issues. A famous paper by Anderson and Bows (2011) from the Tyndall Centre for Climate Change Research in the UK states: "*The analysis within this paper offers a stark and unremitting assessment of the climate change challenge facing the global community. There is now little to no chance of maintaining the rise in global mean surface temperature at below 2°C, despite repeated high-level statements to the contrary. Moreover, the impacts associated with 2°C have been revised upwards, sufficiently so that 2°C now more appropriately represents the threshold between dangerous and extremely dangerous climate change*."

Western Europe and Japan have been experiencing near-stagnant growth for some years now and the prospects remain moderate to say the least while the centre of gravity of global growth has moved to Asia. Sharing the diagnosis of Jackson (2011) and many others, our societies face a dilemma to reconcile economic progress, social stability and the preservation of our ecosystems. The primary constraint pertains to the link between social stability and 'growth as we know it', and the dilemma has to do with the contradiction between the quest for 'growth as we know it' and the resulting GHG emissions within viable limits as suggested by the IPCC (2014). Let us shed some light on each of them in turn.

How to reconcile an indefinitely growing global economy fuelled by a growing population (set to reach nine billion by 2050), always producing and consuming more goods and services with the preservation of a viable environment for humankind needed to ensure the reproducibility of our societies? CO2 emissions and global GDP have moved hand in hand for the last two centuries, following not an arithmetical, nor a geometrical, but an exponential growth trajectory. In the last decade according to the IPCC (2014), population growth and economic growth outpaced emission reductions from improvements in energy intensity. Increased use of coal relative to other energy sources reversed the long-standing trend of gradual decarbonisation of the world's energy supply. The current share of fossil fuels in energy consumption will increase with about 1200 new coal-fired plants in the world according to the World Resources Institute (Yang and Cui, 2012), two thirds of which are in China and India. Given this rising share of fossil fuels in the energy mix, keeping the extraction of non-renewable materials (i.e. fuels and minerals), the production of waste and pollution, and the emission of GHG within 'reasonable' limits (i.e. avoid overshooting the 2°C target of global warming beyond which extreme events would become highly likely) would practically mean constraining the economic system to a global average 'growth as we know it' close to 0.

Growth as we know it thus faces a physical impossibility that policy-makers around the world do not seem to fully realize. In the words of Daly (2005), one of the first ecological economists at the World Bank: "the biosphere is finite, non-growing, closed (except for the constant input of solar energy), and constrained by the laws of thermodynamics. Any subsystem, such as the economy, must at some point cease growing and adapt itself to a dynamic equilibrium, something like a steady state."

Fully internalising the negative carbon externality over the short and long run is a challenge to the tools of economists because of the uncertainty over the magnitude of future shocks. Current market signals do not allow us to identify the magnitude of the future market failures. Market signals would likely remain too small until too late, i.e. when irreversibility thresholds would have been crossed. The only way out of this massive "market failure" is to think of government regulations changing market signals and incentives at the local, national and global levels. Examples would include carbon markets with a global quota system setting the volume of expected reductions in emissions, or a "carbon tax" setting a carbon price, with the risks that these mechanisms will be either insufficient or bypassed or, if effective, will have strong recessive consequences.

Moreover there is little analysis of the politics of collective action required to prevent catastrophic outcomes in the future, let alone confront them. This refers the political difficulty of mobilising populations on abstract and remote threats where the costs of political inaction are diffuse and in the future, the benefits of inaction are concentrated in the hands of powerful sectors of the economy and the consequences of inaction impact the majority of the population, usually the poorest disproportionately.

Job Creation, Equality and Inclusiveness

In the presence of productivity gains, which are both the core engine and outcome of economic growth, net job creation in our current economic system depends on permanently increasing the size of the economy (Jackson 2011). Indeed, as soon as GDP growth stands below productivity gains, jobs are destroyed, all other things being equal (size of working age population, number of worked hours, and duration of working time). In many parts of the world, the same mechanism and the concentration of growth in capital-intensive enclaves can help explain "jobless growth" and the ineffective calls for making it more "inclusive." Maintaining or improving the lot of the unemployed and of those who are not part of the labour force depends either on the ability to grow the economy and include them, or on the ability of states to tax a flow of incomes and redistribute them through social transfers, public goods and public services. Some put the emphasis on the first term ("Grow, dammit, grow!" urged The Economist in October 2010), some on the second (e.g. Paul Krugman pointing at Europe's secret success, its welfare states). Social stability and progress in both cases fundamentally rest on "growth as we know it," i.e. a growth in the production of goods and services. It is by sustaining impressive levels of output growth over three decades that the Chinese regime managed to pull 400 million people out of poverty. Should growth stagnate or diminish, the whole social edifice is shaken as is now the case in many European countries, triggering a vicious circle of growing structural unemployment, lower consumer spending, lower investment, rising social transfers, diminishing tax revenues, and widening budget deficits that turn into rising debt and sooner or later justify slashes in social spending. Our current economic system seems to be doomed to indefinitely growing in size if it is to maintain stability.

The concept of inclusive growth is an idea that encompasses the centrality of job creation at its core but also others such as the issues of inequality of access to social services and income inequality. One of the reasons that this notion came to be highlighted is that the MDG framework did not pay enough attention to the issue of inequality. World Bank President Zoellick adopted this concept as

part of the organization's vision in 2007, and the Asian Development Bank also adopted this concept as one of its main agendas in its Strategy 2020.

Defined by the World Bank as a kind of growth that "allows people to contribute to and benefit from economic growth,"[3] this concept is broader than "pro-poor growth" in that it emphasizes not only the benefits for those living in poverty but also for other excluded groups of society, such as the disabled, minorities, and those living in disadvantaged areas. In the current debate on the upcoming post-2015 development agenda this issue of inclusiveness is one of the issues receiving strong attention. As will be demonstrated by one of the papers in this volume, investment in those who are generally regarded as vulnerable and unproductive could pay off not only from the humanitarian perspective but also from the perspective of economic welfare.

Exposure to Shocks and the Promotion of the Resilience of Growth

Another quality that the growth of the 21st century must embody is resilience: an ability to keep driving human development outcomes in the context of shocks and uncertainties (Spence 2011). Indeed progress toward the MDGs has been critically hindered by shocks and crises such as natural disasters, manmade disasters, economic and financial crises, and conflicts (Conceicao et al. 2011).

The evidence base is thin in this area. There are several papers that link shocks to growth: for example, Dell et al. 2012 find evidence that temperature shocks are significantly associated with dips in economic growth rates, especially in poorer countries. There are fewer papers that identify the attributes of growth that make it more or less able to withstand shocks. One example is the work of Wen and Wu (2014), comparing China's post global financial crisis experience with other countries. Wen and Wu argue that it is not the rate of growth pre-shock that was important. They conclude that China's growth was the most resilient of all nations in the face of the 2008 global financial crisis due to some of its features (the role of state owned enterprises) and some of its policies (such as an aggressive fiscal stimulus).

However, the blind pursuit of resilience is not always going to be consistent with other goals of growth such as poverty reduction. While the benefits of adopting the concept of resilience as an analytical framework to understand how systems respond to shock/stress have been widely recognized in the social-ecological systems literature (see e.g. Carpenter et al. 2001; Chapin et al. 2009) the evidence of benefit in development is less clear. Indeed, Béné et al. (2012) argue that resilience is not necessarily a pro-poor concept—countries, institutions and people who are better off can invest in resilience--and that there is no automatic link between poverty reduction and resilience.

Nevertheless, many conclude that it is better to be safe than sorry, and Hoddinott (2014), in a wide ranging review, argues that the post 2015 development framework will need to give much more to identifying and promoting policies to nurture the capabilities of more vulnerable economies, people, and communities to deal with external shocks. Understanding the characteristics of growth that make it more resilient to shocks while maintaining or improving its pro-poor features is an important area for future research.

The Contributions of the Papers in This Volume

This collection of papers contributes to this debate on the quality of growth in a number of ways. First, we show how different conceptualisations of growth, when measured, deliver very different

[3] World Bank (2009).

assessments of country performance over time, and between countries. The paper by Aglietta shows that for many countries, what appears to be strong performance is revealed as a path towards depletion. The unsustainability of extractive resource based economies is clearly demonstrated, but so too the weak performance of economies that appear robust but which place the greatest emphasis on individual as opposed to social welfare. The easiest thing to do is to continue with the façade of measuring and reporting GDP per capita, but reporting real wealth or IWI reveals the true benefits and costs of resource allocation decisions. Policymakers need to decide whether to choose between truth or simplicity. The negative shocks of the last decade--and the promises of ever more frequent and severe shocks in the future--suggest that simplicity has become merely simplistic and that truth cannot be dismissed for the sake of convenience.

Second, we show how 20th century conceptions of growth do not deliver on the issues we care about in the 21st century. Even the most reliable refuge of those who protect current definitions of economic growth – its ability to drive down extreme income poverty-- will soon offer no protection. Bluhm et al. show that even under the most optimistic of scenarios there will be a slowdown in the ability of growth to reduce $1.25 a day poverty. A much overlooked dimension of the quality of growth is its spatial distribution—if poverty rates are to continue declining at historical rates, each of the countries of sub-Saharan Africa will have to grow at 4.5% per capita for the next 15 years. In the past 10 years, they have—on average—achieved 2.5%, an excellent performance, but not good enough for the next 15 years if we want to continue to drive down extreme poverty. The next three papers in the volume remind us that even this historically good performance of growth in driving down poverty has bypassed the most vulnerable members of society. Tsuruga shows that in Cambodia, despite excellent macroeconomic performance between 2004 and 2010 and extremely rapid declines in income poverty rates, households with certain attributes (primarily agrarian, who own little or no land) remain stuck in poverty.

Using global data, Masset and Haddad show that compared to income poverty rates, infant stunting rates are much less responsive to economic growth and that this has implications for their own poverty as adults and for the likely poverty of their children. Using a large dataset from Nepal, Lamichhane, for the first time, is able to compare the responsiveness of human development outcomes to income growth between individuals with and without disabilities. The paper makes it clear that income growth delivers less for individuals with disabilities.

Third, we show that different components of growth deliver different development outcomes. There are policy choices and they matter. What attributes of growth do we need to pay more attention to make it a driver not a destroyer of the kinds of development transformations we want to see? We focus on growth that helps control greenhouse gas emissions, that generates employment, that does not increase susceptibility to external shocks, and that capitalises on fundamental demographic transitions in Africa. Willenbockel's analysis makes it clear that without low carbon growth in the low income countries global emission targets will not be met, causing problems for all countries. He argues that it is in the interests of low income countries—and everyone else--for them to avoid the "grow now, go green later" strategy. This, he stresses, is the rationale for rich country investment in low carbon growth in the poorest countries. Jobs are a driver of development and decent work is a vital component of human wellbeing. Cirera analyses the links between income growth components and different components of employment. His analysis demonstrates the evidence gaps in our understanding of how to direct growth towards better employment outcomes.

Using local government panel data from Japan, Shimada refutes the notion that long run growth is spurred by the impact of natural crises. He estimates significant short run and long run impacts of disasters on growth. He also explores whether some growth patterns are better or worse at

mitigating the impacts of a given disaster. The susceptibility of different types of growth to shocks is another key dimension of quality. Focusing on Africa, Losch highlights the major demographic trends that Africa will experience in the coming decades. In particular, over the next 40 years the ratio of adults of working to nonworking age will double—from one to two—presenting African countries with the potential for a demographic dividend. This transition will represent a dividend if employment opportunities can be created by investments now. How to realise this potential and avoid a demographic nightmare? For countries, where agriculture is an employer of a large percent of the population, investing in agriculture is one way of stimulating rural income, lowering the real price of food in urban settings, stimulating the demand for non-farm goods and bidding up rural wages. It is also a pro-poor way of growing. But is this an adequate strategic response to the potential demographic dividend? The paper also discusses the possibility of a time window where wage rates in some African countries will become much more competitive with those in Asia. The potential of these overlapping windows sharpens the focus on making the right strategic choices about growth.

Finally, as the papers by Hosono and Mejia Acosta make clear, there is no single path towards high quality growth. There are many policy choices and many common ingredients, but the heterogeneity of context is great and sequencing matters enormously. These papers also remind us, as does Willenbockel, that single policy instruments should not be relied upon to move forward multiple dimensions of growth quality. A range of instruments should be employed to advance a range of growth attributes. Trade-offs are inevitable and generate winners and losers, at least in terms of short run perceptions. This means that politics come into play—at the global, national and subnational levels. Mejia Acosta examines the policy choices that have been deployed to attempt to convert one key source of growth—natural resource extraction—from a historically low quality type of growth into a higher grade. He focuses on the oil and gas sectors in ten low and middle income countries and highlights the complexities and technical and political trade-offs involved in strategizing around stabilisation and savings funds, revenue sharing formulas (between regions and between different levels of government) and cash transfers. Hosono's paper brings us back to an expanded definition of the quality of growth, adding security to the standard component of innovation and the newer recognition of inclusiveness and sustainability. His paper examines four case studies that are widely recognised to exhibit some attribute of high quality growth. He analyses Chile's salmon industry, the Cerrado in Brazil, the automobile industry in Thailand, and the garment business in Bangladesh. The case studies vividly demonstrate the structural transformations that took place, the vital role of learning, knowledge and institutional innovation, but the analysis also highlights the vulnerabilities of even these success stories in terms of inclusiveness (Cerrados), security (Bangladesh and Chile).

Implications for Policy

Several implications for policy emerge from these papers, and from the work they build on.

First, policymakers need to become more discerning about growth. Not all types of growth are good. Some forms advance the human condition—now and in the future--and some do not. Growth is a contingent means to an end, not an end in itself. The numbers in the paper by Aglietta pull back the curtain on what growth has really been achieved and at what cost. This is a difficult position for low-income governments to take when increases in GDP per capita as (still) are effective way of reducing poverty (Chen and Ravallion 2013). Thus the middle and high-income countries must lead the way by changing their behaviour towards growth. They will not do this until their failure to has some electoral consequences. The gradual strengthening of the green movement and the hollowness of jobless growth will eventually hasten this awakening. We can only hope it will be before it will be before some irreversible physical threshold has been crossed (Hughes et al 2013).

Second, we need to set out to design the kind of growth we want. If we want growth to reduce poverty, to not destroy the environment, and to not be fragile to shocks, we know what to do: at the very least prevent inequality from worsening, make sure social and environmental costs are incorporated into benefit-cost ratios, and view growth through a resilience lens, where diversification is a key principle. The resource curse literature has shown that governance is the difference between growth that is high quality and low quality (Moore 2011). The rules of the game can be influenced to make it more likely that higher quality growth will be generated. Innovations that promote lower resource footprints per unit of growth need to be incentivised and shared via R and D spending, well-designed public-private partnerships to shift incentives in the use of long-term investment resources, targeted tax breaks and international charters which reduce transactions costs on quality-growth promoting intellectual property. As envisaged more or less explicitly in different papers of the volume, notably Aglietta, the most coherent and ambitious way forward should consist in a massive and coordinated global investment initiative to accelerate the transition from low cost non-renewable to low cost renewable energy sources . This would require strong global political commitment and a financial commitment of long-term resources backed by central banks in order to pool the risk on the path to this energy transition.

Finally, we need to measure the things we care about. How much employment is generated per unit of growth? How many resources are used per unit of growth? How many emissions are produced per unit of growth? There are many efforts to answer these questions (e.g. Schreyer and Jorgenson 2013) and they must be supported. Until we have reliable measures of these dimensions, growth for growth sake will prevail. The SDGs need to set the standard here for a new generation of indicators and targets that fuse economic, social and environmental outcomes, guiding domestic and external resources. Key here is that any development spending targets expressed as percentages of income need to have denominators that incorporate all dimensions of growth quality.

The papers in this collection do not underestimate the challenge of thinking and acting differently about growth. For 80 years since the creation of national accounts, massive investments have been made in consolidating and refining that system. The creaking nature of the national accounts infrastructure—and to some extent, how we measure income at the national level[4]--has only become widely apparent in the past 15 years. It will take more evidence, more persuasion and, perhaps, more shocks for this agenda to accelerate more rapidly. We hope that this collection contributes in some small way to that much needed acceleration.

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[4] Even going so far as using night light data as an income proxy (Henderson et al. 2011).

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