Transforming MDG growth pattern for SGDs

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2015-02-05

Abstract

In the process of preparing the publication *World Economic and Social Survey 2014/2015: MDG Lessons for Post-2015*, we have studied the theme of ñsustained, inclusive and equitable growth as an effective macro enabler for the achievement of MDGsò, along with other macro enablers. Our analysis, based on MDG data and other macro data for a large number of countries, and also based on the review of large volumes of other studies, shows that the pattern of growth matters for the growth effects on poverty reduction and the achievement of other MDGs. Our analysis has identified a number of key factors and macro policies which can make growth more sustained, more inclusive and more equitable, and thus more effective in promoting MDGs. Looking forward, however, our study points out that the pattern of ñsustained, inclusive, and equitable growthò, which was found to be effective in the MDG years, will not work well for SDGs in the post-2015 era. We need to transform ñsustained, inclusive, and equitable growthò into ñsustainable, inclusive, and equitable growthò. The paper discusses some key elements for this transformation.

JEL Classification: E22, E24, E58, E62, O11, O20

Keyword: MDGs, SDGs, growth, poverty, inequality, investment, human capital, technology, monetary policy, fiscal policy, inclusive growth, sustainable development.

[1] This is a background paper for *World Economic and Social Survey 2014/2015* "MDG Lessons for Post-2015". I would like to thank Wen Shi for her contribution to Box I, Hamid Rashid for Box II, Nicole Hunt for figures, S. Nazrul Islam, Alex Julca, Hiroshi Kawamura, Pierre Kohler, Marcelo LaFleur, John Winkel, and Marco Vinicio Sanchez-Cantillo for their comments.

I. Introduction

II. Sustained, inclusive and equitable growth as effective path towards MDGs

a) The nexus among growth, inequality and MDGs
b) Building necessary conditions for sustained growth
c) Managing macroeconomic stability for sustained growth
d) Making growth inclusive through employment and productive jobs
e) Making growth equitable by improving equality in opportunity and outcome

III. Transforming MDG growth pattern for SDGs

Boxes:

Box II.1 An analytical framework for studying growth effects on poverty reduction
Box II.2 Inflation targeting: rule versus flexibility

Figures

Figure II.1 GDP per capita and children mortality (1990-2013)
Figure II.2 Income and improved sanitation facilities (2011)
Figure II.3 Income and primary school completion rate (2011)
Figure II.4 Poverty reduction and increase in household income (2010)
Figure II.5a Income inequality and growth (full sample)
Figure II.5b Income inequality and growth (sample for Gini<30%)
Figure II.5c Income inequality and growth (sample for Gini<40%)
Figure II.5d Income inequality and growth (sample for Gini<50%)
Figure II.6 Investment rate and GDP Growth (1991-2010)
Figure II.7 Distribution of GDP growth among developing countries (1991-2013)
Figure II.8 Distribution of GDP inflation rate among developing countries (1991-2013)
Figure II.9 Number of developing countries experienced recession (1991-2013)
Figure II.10a GDP loss in developing countries during the global financial crisis
Figure II.10b GDP loss in Africa and South Asia during the global financial crisis
Figure II.11 Global imbalances
Figure II.12a GDP per capita growth in Africa (2001-2011)
Figure II.12b Poverty reduction in Africa (2001-2011)
Figure II.13 Structural changes and labour productivity growth in sub-Sahara Africa
Figure II.14 Educational inequality by sex in some regions
Figure II.15 Proportion of children attending primary school by wealth quintile, late 2000s
Figure II.16a Market and net Gini coefficients for OECD countries
Figure II.16b Market and net Gini coefficients for non-OECD countries
Figure III.1 Carbon dioxide emission in developing countries (1992-2010)

Figure III.2 Carbon dioxide emission in developed countries (1991-2012)

Figures for boxes

Figure II.1.1 Density functions for sub-Sahara, China, and India (2010)
Figure II.1.2 Poverty reduction through different growth rates in sub-Sahara
Figure II.1.3 Poverty reduction by 50% GDP per capita growth in sub-Sahara
Figure II.1.4 Poverty reduction by 50% GDP per capita growth in India
Figure II.1.5 Poverty reduction by 50% GDP per capita growth in China
Figure II.1.6 Poverty reduction by both growth and improved inequality in sub-Sahara Africa

List of references

I. Introduction

This paper studies policies and strategies that do not pertain to specific MDGs but provide broad enabling conditions, at both international and domestic levels, which are necessary for and conducive to the achievement of MDGs. They can be called ñMDG-enablingò policies and strategies. More specifically, we focus on those MDG-enabling policies and strategies which can be grouped under the theme: ñsustained, inclusive and equitable growth as an effective path toward MDGsò.[2]

Economic growth, as measured in terms of increment in gross domestic product (GDP)[3], is not an end of itself, but it can provide necessary condition for achieving many important development objectives of individuals and societies. For example, in the past two decades, as the result of growth, along with other efforts as discussed later, a significant increase in income in a number of developing countries has freed hundreds of million from abject poverty and hunger, more than anything else ever has. Growth also creates the resources to support health care, education, and the other MDGs.

The United Nations development agenda has long recognized the importance of economic growth. In as early as the first UN Development Decade for the 1960s, the UN declared that Member States would work to intensify their efforts to accelerate progress toward self-sustained growth and social advancement so as to attain in each ñunder-developed countryò (namely, the least developed country in todayôs definition) a substantial increase in the rate of growth. While each country would set its own target, the UN set a minimum annual growth rate of 5 per cent as the global target (United Nations, 1961). Although this target had not been fully met, the Second Development Decade for the 1970s set an even higher target of 6 per cent. The formulation of the Third Development Decade for the 1980s was aborted by the harsh economic realities facing most developing countries: debt crisis and stagnation. In the 1990s, the UN development agenda was broadened, to focus more on social and human development dimensions, as characterized by a number of global Summits.

When the MDGs were formulated in 2000, economic growth was not included as a goal or target, but the crucial role of growth for promoting MDGs was recognized. For example, the report of the ñRoad map towards the implementation of the United Nations Millennium Declarationò (United Nations, 2001) made it clear that in order to significantly reduce poverty and promote development it is essential to achieve sustained and broad-based economic growth. The same report also supported and reiterated the target of annual GDP

[2] Another paper will study the theme of “peace and stability as both enablers for and outcomes of development”.

[3] In this paper, the terms of “GDP”, “total value-added of goods and services produced”, and “gross national income (GNI)” are interchangeably used, despite some statistical nuance among them.

growth of above 7 per cent for Africa in the period of MDGs as set in the New Africa Initiative.

Interestingly, after three decades behind the scene of the UN development agenda, economic growth was reinstated by the Open Working Group (OWG) of the UN General Assembly on Sustainable Development Goals (SDGs) on the list of 17 proposed SDGs (United Nations, 2014a). The proposed SDG 8 is set to ñpromote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for allò, and one of the related target is set to ñsustain per capita economic growth in accordance with national circumstances, and in particular at least 7 per cent per annum GDP growth in the least-developed countriesò.

Next section will identify and analyze key factors and policies which can support sustained, inclusive and equitable growth for achieving the MDGs, based on the broad experience in many countries during the MDG era, particularly developing countries.

The last section will conclude with discussions on the implications of the macro MDG enablers for the Post-2015 development agenda and SDGs. As SDGs are built on MDGs, most macro MDG enablers will continue to be relevant in the Post-2015. However, as SDGs are much broader in the scope than MDGs, some of these macro enablers need to modify and expand in order to become enablers for SDGs in the Post-2015.

II. Sustained, inclusive and equitable growth as effective path to MDGs

This theme has defined three desirable features of growth which can make growth most effectively benefit the achievement of MDGs. ñSustainedò growth refers to a robust and stable growth lasting for a long period, at least two or three decades; ñInclusiveò growth means those who are able and willing to participate should be included as much as possible in contributing to and benefiting from the growth; ñEquitableò growth requires both equal opportunity to participate in growth and equal distribution of the outcome of growth in accordance with the contribution and the basic principles of equality and human rights. This theme is, however, not a simple sum of the three desirable features, as the policies to ensure each of the three features are not independent, but interconnected. For example, a policy to increase government spending on education and health will not only enhance human capital so as to support sustained growth, but also improve the capacity and opportunity for more people in the economy so as to make the growth more inclusive and equitable. Nevertheless, for the clarity of presentation, in the discussion below, each feature will be analyzed separately, and the issues of policy interdependence and synergy among these three features will be discussed in the concluding section of this paper along with other issues.

a) The nexus among growth, inequality and MDGs

Economic growth is in general found to be supportive for the achievement of MDGs, as increase in income provides more public and private resources for the advancement of human development. For example, as shown in figures II.1 and II.2, when income increases, child mortality rate tends to decline and the access to improved sanitation facilities rises.

Figure II.1 GDP per capita and children mortality (1990-2013)

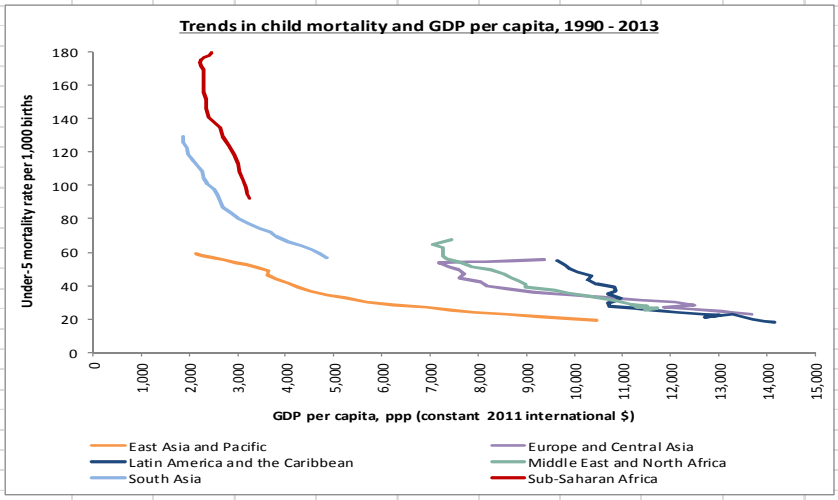
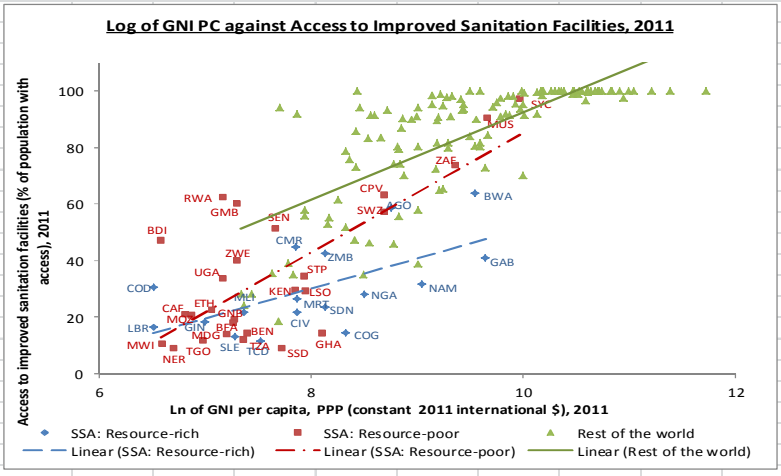
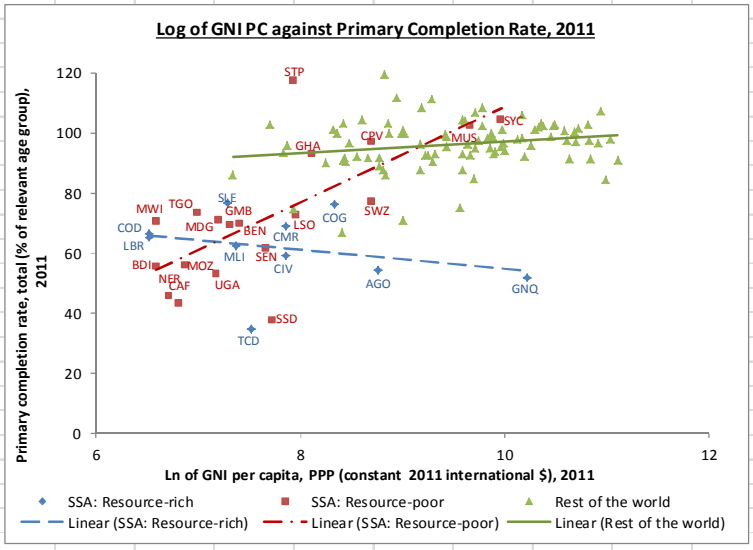


Figure II.2 Income and improved sanitation facilities (2011)



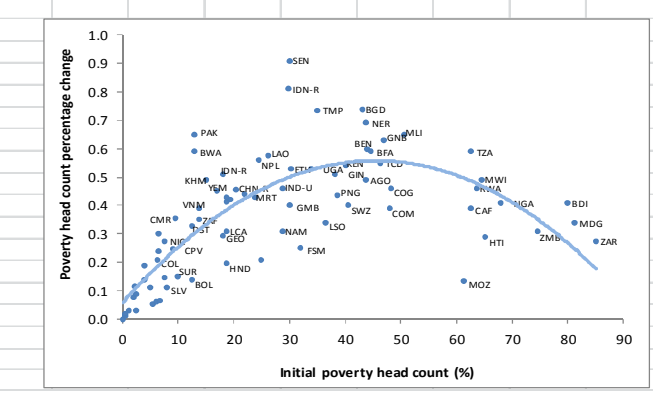
However, in some MDG targets, the growth effects may not always be so obvious. For example, shown in figure II.3, as income increases, the completion rate for primary school education tends to rise in most countries in the world, with a particularly strong positive correlation in the resources-poor sub-Sahara African countries, but a negative correlation is displayed for the resources-rich sub-Sahara African countries.

Figure II.3 Income level and primary school completion rate (2011)



Moreover, in other cases, the growth effects seem to vary considerably across countries and over time. For instance, it is well known that although growth can lead to reduction in poverty, the growth effects on poverty reduction vary markedly from country to country. As demonstrated in figure II.4, the growth effect on poverty reduction shows an inverted ñUò curve in its relationship with the initial poverty condition of individual countries. For countries with the poverty rate below 45 per cent, the higher the growth, the more poverty reduction can be achieved; but for countries with the poverty rate above 45 per cent, the growth effect on poverty reduction seems to be on a diminishing rate.

Figure II.4 Poverty reduction and increase income (2010)



Such complexities in the growth effects on poverty reduction and other MDG targets need to be investigated by digging into specific conditions and policies in individual countries. However, we can use a simple analytical framework as presented in Box II.1 to illustrate why and how the nonlinearity is involved in the nexus among growth, inequality

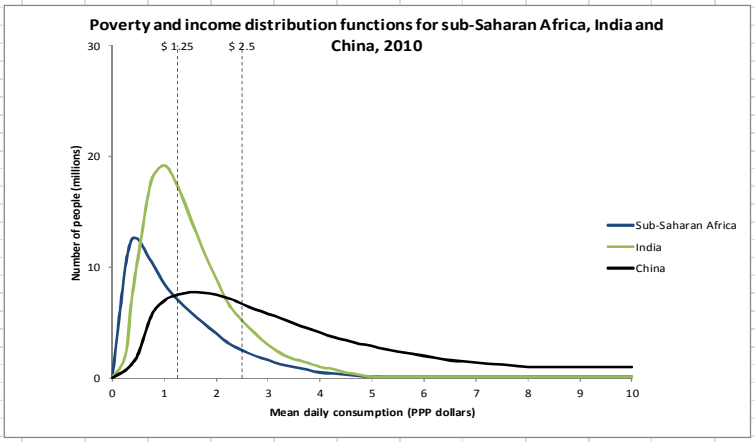
and poverty, before taking more in-depth investigation into these complexities in the sub-sections bellow.

**********Beginning of Box II.1 **********

Box II.1 An analytical framework for studying growth effects on poverty[4]

This analytical framework starts with the density function of income distribution for a country or a group of countries.[5] In this case, the density functions of income distribution for sub-Sahara, China, and India as observed in 2010 are used as examples, as shown in figure II.1.1 (Africa Progress Panel 2014).

Figure II.1.1 density functions for sub-Sahara Adrica, India and China (2010)



By definition, the poverty rate is equal to the area under the curve of the density function on the left-hand side of the poverty line ($1.25 per day). With these density functions, the poverty rates for these economies by 2010 are 48 per cent for sub-Sahara Africa, 31 per cent for India, and 12 per cent for China.

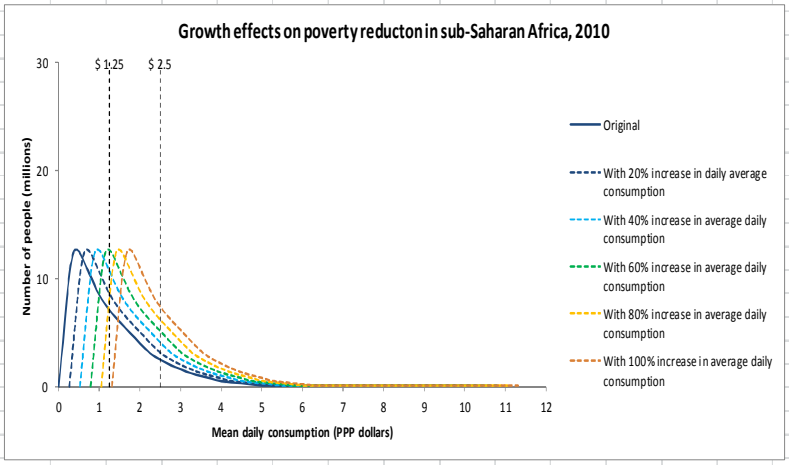
[4] This box is contributed by Wen Shi, an intern at UN/DESA.

[5] Bourguignon (2003) used the similar framework to explain the relationship between growth and poverty reduction, but he used a hypothetical normal density function. Here, the observed density functions for three economies are used in the numerical exercises.

Three numerical exercises can be conducted.

In the first exercise, taking sub-Sahara Africa as an example, assume GDP per capita in sub-Sahar Africa will grow by 20, 40, 60, 80, and 100 per cent respectively, and also assume in each case the shape of the density function will remain the same.[6] The results are shown in figure II.1.2. The effects on poverty reduction corresponding to these growth spells are 12, 27, 35, 48, 48 percentage points respectively. The so-called ñgrowth elasticity of poverty reductionò is 0.6 for the first 20 per cent of growth, 0.75 for the second 20 per cent of growth, 0.40 for the third, 0.65 for the fourth.[7] The elasticity is clearly nonlinear, but also not in an inverted ñUò: it is in a ñWò shape.

Figure II.1.2 Growth effects on poverty reduction in sub-Sahara Africa



In the second exercise, comparing these three economies, assume the GDP per capita in each economy will grow by 50 per cent, and also assume the density functions will remain the same. As shown in figures II.1.3, II.1.4 and II.1.5, the effects on poverty reduction will be 27, 29, and 9 percentage points for sub-Sahara Africa, India, and China respectively, and the corresponding growth elasticity of poverty reduction will be 0.54, 0.58, and 0.18, respectively.

[6] Strictly speaking, under this assumption, only the variance of the density function is maintained to be the same, but the Gini can still change. We will continue to study the case in which the Gini will be preserved in the next drraft.

[7] Growth elasticity of poverty reduction is defined as the percentage change in headcount poverty in response to one per cent change in GDP per capita. See, for example, Bourguignon (2003)

Figure II.1.3 Growth effects on poverty reduction in sub-Sahara Africa

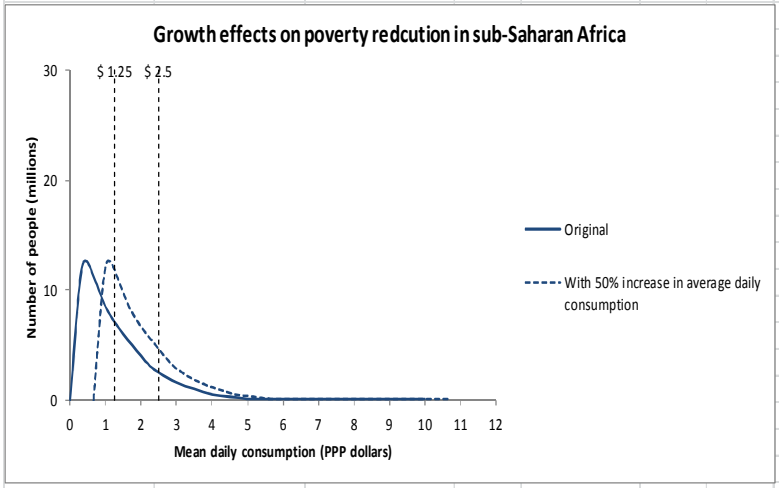


Figure II.1.5 Growth effects on poverty reduction in India

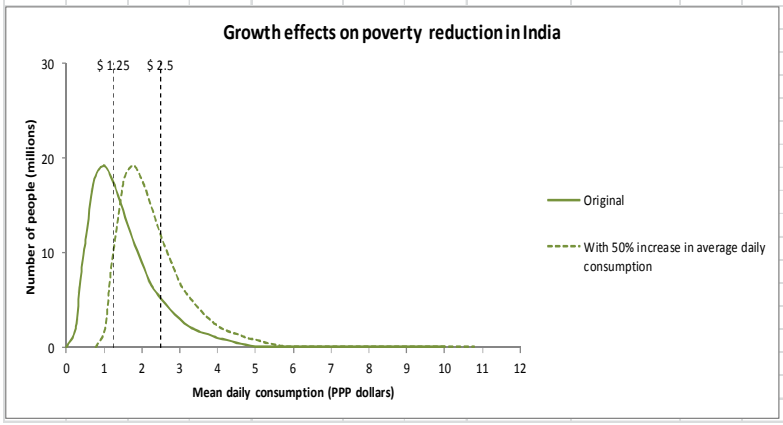
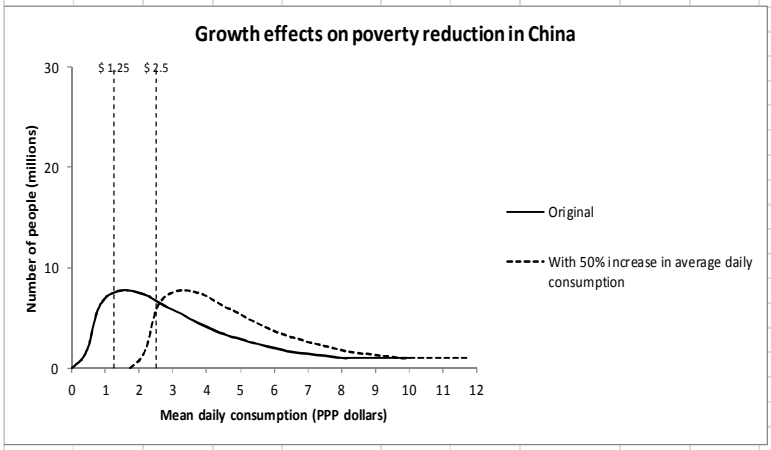


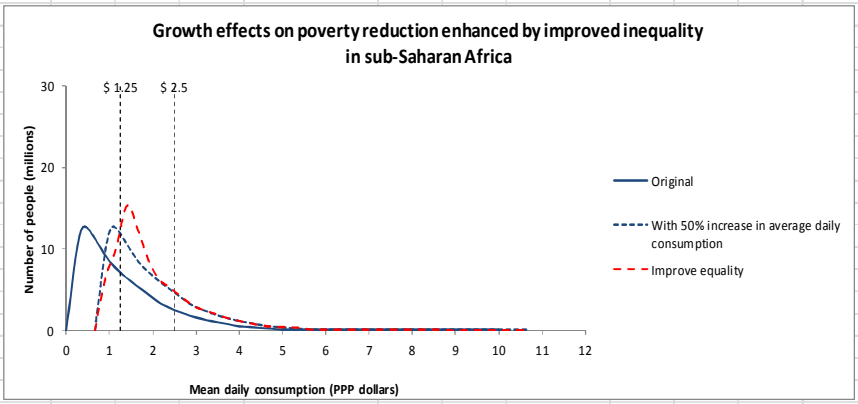
Figure II.1.5 Growth effects on poverty reduction in China



In the third exercise, taking the result in exercise two for sub-Sahara Africa, assume income inequality will improve in the region in the same period as the GDP per capita grows

by 50 per cent. As reflected in the narrowing of the density function in figure II.1.6, the poverty rate for sub-Sahara Africa will be further reduced from 27 per cent to 14 per cent.

Figure II.1.6 Growth effects on poverty reduction enhanced by improved inequality in sub-Sahara



In comparison, many other studies of growth elasticity of poverty reduction are based on cross-country, or panel-data regressions, for example, Adams (2004) and Fosu (2011). They can provide some information about the relationship among growth, inequality and poverty. However, given the complex non-linearity as revealed by the exercises above (which is true not only for these three economies, but also for other countries), the estimated elasticity from such regressions can be biased by a large margin from the actual elasticity in a specific country at a specific time.

Another approach is to use a hypothetically assumed normal density function to estimate the growth elasticity of poverty reduction. This approach has the beauty of simplicity because the simple functional form between the key parameter (the variance) of the normal density function and the Gini coefficient, but the cost is the bias in the result because the actual density functions for most countries are far different from a normal distribution.

Compared with other approaches, this framework can reveal much more accurate information about the complex non-linear relationships among growth, inequality and poverty, although this framework requires much more data, which may not be available for some countries.

*******End of Box II.1 **********

A few interesting points can be drawn from the exercises in Box II.1:

First, the growth effect on poverty reduction in a country varies over time, depending on the prevailing poverty rate and the density function. When the median income of the population is on the far left of the poverty line (meaning, the poverty rate is high, as in the initial case of sub-Sahara Africa), the growth effect on poverty reduction is small, but it will increase along with further sustained growth. When the median income is moving closer to

the poverty line, the growth effects on poverty reduction will become larger. After the median income passes the poverty line, the growth effects on poverty reduction will start to diminish.

Second, in the same period, different countries have different growth effect on poverty reduction because they have different poverty rates and/or different density functions.

Third, the definition of headcount poverty is biased towards underestimating the growth effects on poverty reduction. For example, as shown in case 2 in figure II.1.2, A spell of growth by 40 per cent in sub-Sahara Africa can only reduce poverty rate by 27 percentage points; however, the same spell of growth has also increased the income level of some 12 million people from $0.5 per day to the neighborhood of $1 per day, moving them closer to the poverty line and making these people easier to the exit the poverty in the near future. Such an effect is not reflected in poverty reduction if measured by headcount.

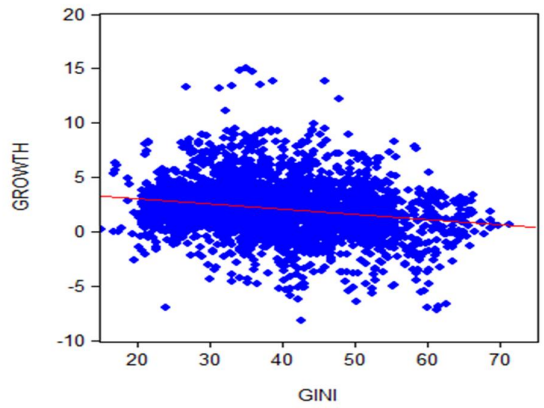
Fourth, the third point also means a country in deep poverty would require ñsustainedò growth in order to achieve meaningful poverty reduction.

Last, if inequality can be reduced at the same time as growth sustains, the growth effects on poverty reduction can be enhanced. As discussed in more details later, this shows inclusive and equitable growth can enhance poverty reduction.

At issue is, however, whether growth and improvement in inequality can go hand in hand. Views are split on this issue. A group of economists believe income inequality has positive effects on economic growth, as inequality can provide incentives for innovation and entrepreneurship, and can also increase saving and investment ((Lazear and Rosen, 1981; Kaldor, 1957; Barro 2000). In contrast, another group argues that inequality is detrimental to economic growth because inequality can impede the building of human capital (education and health) and it also leads to political and economic instability that discourages investment (Aghion, Caroli, and Garcia-Penalosa, 1999; Rodrik, 1999; and Galor and Moav, 2004). In the middle, some other economists suggest that the relationship could be nonlinear: rising inequality from low levels can enhance growth, but as inequality rises beyond certain range, it will start to hamper growth (Benhabib, 2003).

Most recently, Ostry, Berg and Tsangarides (2014) found, based on a large dataset of some 150 countries in 40 years, a negative correlation between income inequality and the future growth (growth 10 years later), as shown in figure II.5a. However, a more detailed statistical analysis of the same dataset revealed a nonlinear relationship between inequality and growth (Hong, Li and Peng, 2014).

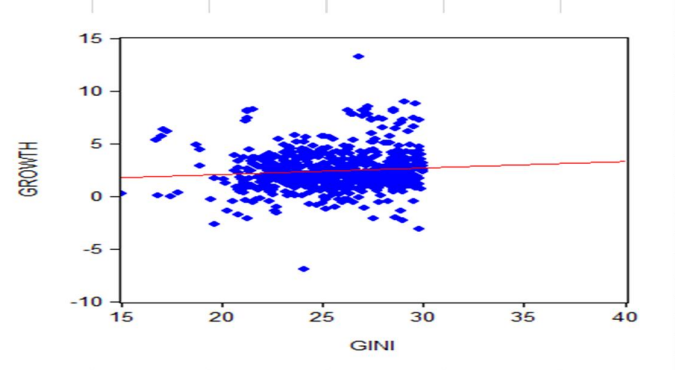
Figure II.5.a Income ineqaulity and growth (full smaple)
Full sample: Growth = 3.997 - 0.0479 * Gini



Source: UN/DESA

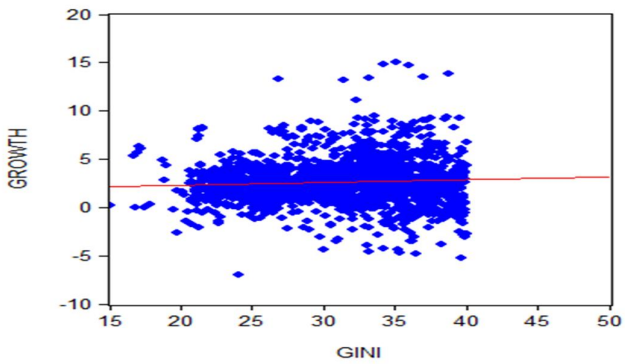
As shown in figures II.5b-II.5.d, a step-wise approach is adopted to analyse the correlation between income inequality and future growth for different ranges of income inequality. The correlation would remain positive until the Gini coefficient moves up to 42 per cent before turning negative afterward. This finding seems to support the nonlinear hypothesis that income inequality is not harmful to growth when the degree of income inequality is modest. But when inequality increases, it will become detrimental to growth. In other words, when an economy is in high inequality, policies to reduce inequality can indeed strengthen growth, and at the same time enhance the growth effect on poverty reduction.

Figure II.5.b Income inequality and growth (sample for Gini < 3
Gini less than 30 % : Growth = 0.827 + 0.0615 * Gini



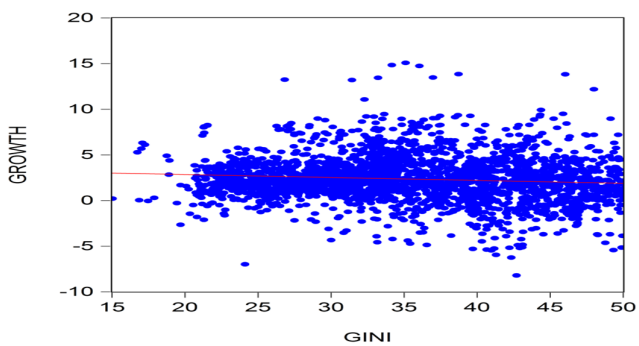
Source: UN/DESA

Figure II.5.c Income inequality and growth (sample for Gini < 4
Gini less than 40%: Growth = 1.727 + 0.0287 * Gini



Source: UN/DESA

Figure II.5.d Income inequality and growth (sample for Gini < 5
Gini less than 50% : Growth = 3.484 - 0.0322 * Gini



Source: UN/DESA

One caveat is that, given the widely spread range of the data in figure II.5.a, any simply statistical correlation may have concealed a much more complex relationship between inequality and growth in individual countries. For example, for the given value of the Gini coefficient at about 40 per cent, GDP growth varies in an extremely wide range, from -8 per cent to 10 per cent, implying that there must be other important factors that have had significant influence on the relationship between inequality and growth. With a high degree of heterogeneity among the 150 countries in a span of 40 years, many country-specific factors could have confounded the relationship between growth and inequality, such as the differences in domestic economic and political institutions.

b) Building the necessary conditions for sustained growth

The growth performance differed patently among economies, not only in the MDG period, but also over a much longer history. For instance, in the past several decades after World War II, only a dozen economies in the world managed to achieve what can be considered as sustained growth: an average annual rate of 7 per cent or higher, lasting for two

decades or longer.[8] Researchers and policymakers worldwide have long been in the quest for the key determinants of long-run growth, the causes of the substantial difference in the growth rates across countries, and the policies to promote sustained growth. A full gamut of factors have been identified as the important factors for long-run growth in volumes of economic studies, for example, in the series of the Handbook of Economic Growth by Aghion and Durlauf (2005 and 2014). The list of growth factors is still increasing; however, as humbly admitted by the Commission on Growth and Development (2008), economists still donôt know the sufficient conditions for growth.

Nevertheless, based on the MDG experience, as well as the broad development experience prior to MDGs, economists and policymakers can at least identify a set of factors which provide necessary, although not sufficient, conditions for sustained growth. In other words, an economy cannot achieve sustained growth without these factors in place. Policies and strategies should therefore be focused on promoting these factors, or under certain circumstances, removing constraints on these factors.

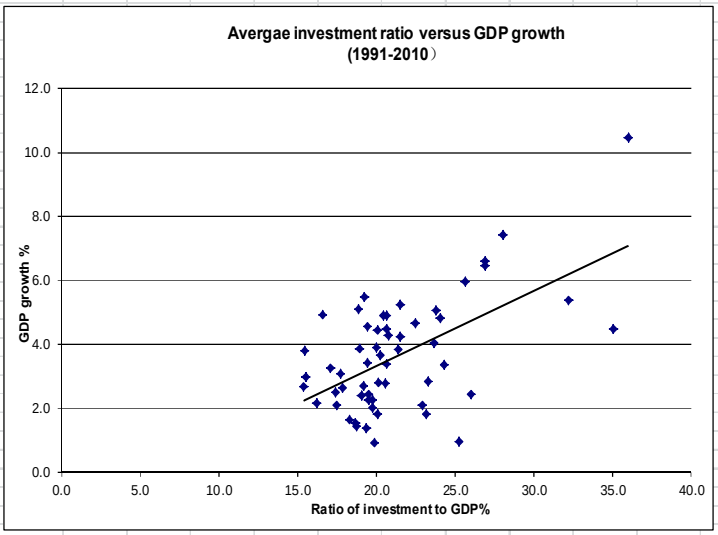
Among the necessary factors for sustained growth, high level of ***investment*** in productive capacity, improvement in ***human capital*** and ***technological innovation*** are considered to be the fundamental productive factors, which directly determine the potential, or limit of growth for an economy.

Sustained growth requires high rates of ***investment*** in productive capacities of infrastructure, business structure, equipment and software, as well as reach and development (R&D). Those economies which have succeeded in achieving sustained growth in the past decades would usually maintain an investment rate (relative to GDP) of 30 per cent, or higher. For example, China maintained an investment rate above 35 per cent for three decades to support an average annual growth of 10 per cent. In comparison, the average investment rate in sub-Saharan Africa has increased from 16 per cent to 23 per cent in the past decade (IMF 2013), along with a pickup in regionôs growth to 5.5 per cent in the same period, ranking the second only to developing Asia. Among other developing regions, investment rate in most Latin American countries remains below 20 per cent.

As shown in figure II.6, in the past two decades of the MDG reference period, for any economy to achieve an average growth above 6 per cent it must have maintained an investment rate above 25 per cent. Interestingly, the figure also shows that a few economies maintained an investment rate above 25 per cent, but failed to achieve high growth, indicating indeed a high level investment is only the necessary condition but not the sufficient condition for sustained growth.

[8] Among these economies are Botswana, Brazil, China, Hong Kong SAR, Indonesia, Japan, Republic of Korea, Malaysia, Malta, Oman, Singapore, Taiwan (Province of China), and Thailand.

Figure II.6 Investment rate and GDP growth



Source: UN/DESA

A critical policy measure for promoting investment is the leading role of government in investment in infrastructure, such as roads, ports, airport, telecommunication and energy supply. Given the nature of infrastructure as public goods, without public investment, there will be shortage in infrastructure, resulting in bottlenecks for other economic activity. Public spending on infrastructure can crowd in private investment, as it expands investment opportunities and raises the return to private investment. Public investment in infrastructure can also engender positive spillover for promoting new industries and export diversification. In recent years, public investment in telecommunication infrastructure has become particularly important in many developing countries, which can significantly raise economy-wide productivity through its broad benefits for access to education and increasing transparency and the delivery of government services, as well as promoting access to trade and financial services.

In the economies with sustained growth, public investment in infrastructure accounts for more than 5 per cent of GDP. In order to accelerate the expansion of infrastructure, governments in many countries have also increasingly sought to tap private sources to finance infrastructure by forming public-private partnerships, In this case, proper terms and regulations should be well established to oversee the activities of the private agents and ensure that the private investor can earn an honest return but not a monopoly profit. Commercial risks should be borne by the private party, to avoid the situation in which the private party takes profits while the public covers risks.

High level investment, public or private, requires adequate savings to finance. Successful experience during the MDG period indicates that countries with sustained growth and high investment are no exceptionally supported by high domestic savings. Foreign savings, in terms of capital inflows, can complement, but not substitute domestic savings to finance high level investment. High reliance on foreign capital inflows is of high risk (more discussion later on dealing with risks associated with capital inflows). Meanwhile,

development of an effective, stable and inclusive financial sector is also important for mobilizing domestic savings, channeling funds to productive investment and redistributing risks.

Improving ***human capital***, namely the quality of the labour force in an economy, is as important as, or even more important than investing in physical capital for supporting sustained growth. Successful MDG lessons show that government policies in supporting education and health are crucial to improving human capital, as the economies with sustained growth would usually spend at least 7ï 8 per cent of GDP in education, training, and health.

Public spending on education is justified on the grounds of both efficiency and equality. Education is considered to be able to increase not only returns to individuals, but also social returns; therefore, public spending on education can correct the failure of the market to allocate enough resources to education. In addition, it also provides opportunities to those poor families who otherwise cannot afford sending their children to school.

A large body of data from economics, biology, and psychology shows that public spending on education in early childhood, particularly targeting toward disadvantaged children and their families, can have far-reaching implications (Heckman 2011). It seems reasonable for public education policy in developing countries to be focused first on preschool and elementary education, before increasing gradually to secondary school and eventually tertiary. However, the experience of the economies with sustained growth also indicates that governments in developing countries donôt have to follow strictly in such sequencing. It is also important that education policies should not be focused only on quantity indicators, such as ñyears of schoolingò and ñenrollment rateò, but also on quality of education.

Like education, public spending on health to improve human capital can also generate important payoff for sustained growth, as well as social equality. For instance, where malaria is endemic, workers can expect to lose 10-20 working days in a year, a substantial loss of labor supply. Much worse is the damage childhood malaria may do to the cognitive development of infants (Bloom and Canning 2008). Therefore, public spending on preventing malaria in developing counties can contribute significantly to sustained growth.

More importantly, access to public education and health is also among the human rights. In fact, MDGs have defined specific goals and targets for both education and health; therefore, they are both development goals themselves and important enablers for achieving other goals. More detailed analysis can be found in chapter III of WESS 2014/2015 for MDG-specific policies in education and health.

While high level investment and improving human capital are important for sustained growth through accumulating productive capacities, ***technological innovation***, or technological progress, plays a key role in advancing the productivity of both capital and

labour, generating additional growth out of the existing resources and productive factors. Researchers and policymakers have all realized this important role of technological innovation. For example, in his pioneer work on modern growth theory, Solow (1956) considered technological progress as the only determinant for long-run growth, although he assumed technological progress was exogenously given. Later, in the 1990s, the emergence of endogenous growth theory was focused on the efforts to explain how technological progress could be endogenously promoted through various policies (Romer 1994). Meanwhile, in the 1980s, Deng Xiaoping, when he launched Chinaôs unprecedented economic reforms and open-up policies which lead to the decades-long sustained growth, was quoted as stating ñtechnology is the number one productive forceò (Deng 1994).

Technological innovation, in broad sense, includes not only invention and adoption of new technology, but also knowledge, knowhow, as well as changes in the way of organizing and managing the economy at both macro and firm levels. For many developing countries, where the level of technology currently adopted in the economy is far from the technological frontier in the most advanced economies, technological innovation in most cases means narrowing this gap through transferring the technology from more advanced countries (including both developed and other developing countries with relatively more advanced technology). A successful adoption of more advanced technology can significantly transform the economic structure in developing countries, from an agricultural economy to industrialization, from low productivity to high productivity, thus leading to sustained growth. In the countries with sustained growth, broad technological innovations account for a large share of contribution to their high growth. For example, in the past three decades, more than 70 per cent of Chinaôs growth could be attributed to such broad technological innovations (Zhu 2012), which have helped reallocate a prodigious amount of surplus labour force from the low-productive primary sector to higher-productive manufacturing and services sectors.

Nevertheless, a successful technology transfer from more advanced economies to less advanced economies is not as easy as it sounds: it is not a simple mechanic process of copying, or mimicking. A country cannot simply ñpurchaseò technology from others. It requires painstaking efforts for the recipient country to learn how to adopt and master the transferred technology. It requires well-conceived policies and strategies, and the process of transferring technology in itself requires innovation.

Policies for promoting technological innovations involve industrial policy, trade policy, and investment policy, along with other broader macro as well as more specific technology policy measures.

Industrial policy refers to governmentôs selection of specific industries or sectors as priority in the national development and supports these specific industries or sectors with tax breaks, subsidies, tariff exemptions, preferential credit, discounted prices of resources (such as public land), or a buddle of these and other preferential measures. Many countries,

developed and developing, countries with sustained growth and countries with stagnation, all have tried at certain stage of their development some forms of these policies. Some countries succeeded while others failed.

Therefore, current discussions on industrial policy among economists and policymakers seem to have increasingly shifted away from the past topic on whether or not to have industrial policy and towards a focus on how to do it right (Salazar-Xirinachs et al 2014). However, views are still split over the objectives, dimensions, scopes and instruments of industrial policy, given the divers experience even among the countries that seem to have succeeded in using industrial policy for promoting sustained growth. For example, the ñGrowth Identification and Facilitation (GIF)ò approach, as advocated by Lin and Treichel (2014), defines industrial policies in a narrow sense, with the State mainly identifying new economic activities and facilitating changes in factor endowment structures, under the guidance of the countriesô international comparative advantage. In contrast, the ñcapabilities approachò, by Nübler (2014), tasks industrial policy with promoting productive capabilities and learning processes as well as enhancing productive capacities, and shaping patterns and processes of productive transformation aimed at higher productivity growth, as well as enhancing the quantity and quality of jobs. Therefore, it remains a challenge for individual countries to adopt the right industrial policy measures according to their county-specific circumstances.

Trade policy and foreign direct investment (FDI) policy, which are closely linked to industrial policy, or in some cases are part of a broadly defined national industrial policy, also have important implications for technological innovations. Trade and FDI are two main channels through which technologies can be transferred from more advanced countries to less advanced ones. As shown by some of the fast-growing countries in Asia, right trade and FDI policies can facilitate technological innovation and structural transformation. Conversely, wrong trade and FDI policies can also become constraints on national technological progress and structural transformation.

c) Managing macroeconomic stability for sustained growth

While the policies to strengthen the productive factors on the supply side of growth are important for achieving sustained growth as discussed in the section above, equally important are the policies to manage broad macroeconomic stability, including the stability of prices, aggregate demand, employment, public and private finance, and the balance of payment.

During the MDG period, or at least in the period of 2000-2008 before the eruption of the global financial crisis, macroeconomic stability in most developing countries has been improved in comparison with the decade of the 1990s. For example, the average GDP growth in developing countries was measurably higher in this period than in the 1990s, while the

deviation of GDP growth among developing countries was notably lower (figure II.7). Inflation in most developing countries has moderated significantly from the 1990s to the 2000s (figure II.8). Currently, a majority number of developing countries maintain the inflation rate below 5 per cent, with only handful developing countries seeing the inflation rate in double digits (United Nations, 2015). Meanwhile, the number of developing countries which have encountered with recession is also discernably smaller in the MDG era (excluding 2009, as discussed below) than in the 1990s (Figure II.9). By other macroeconomic measures, both fiscal balance and public debt in most developing countries have also improved in the past decade. The external debt of the developing countries as a whole declined more than 10 percentage points over the MDG period (United Nations, 2014b). The employment situation will be discussed in the section on inclusive growth.

Figure II.7 Distribution of GDP growth among developing countries (1991-2013)

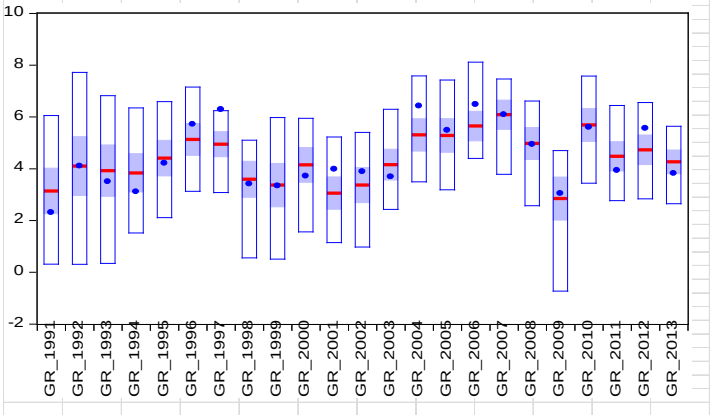


Figure II.8 Distribution of inflation rate among developing countries (1991-2013)

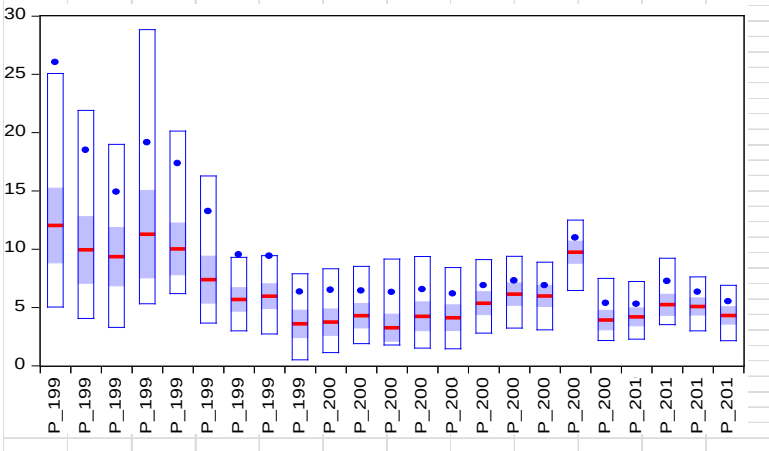
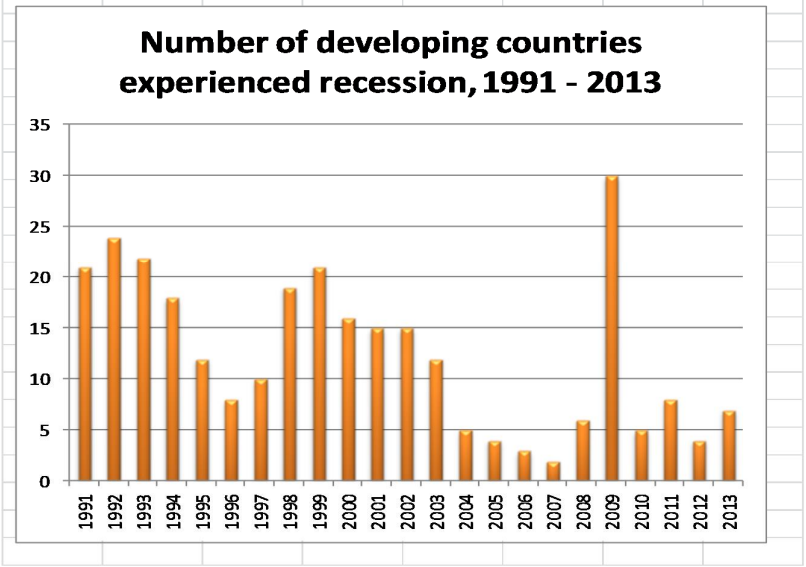
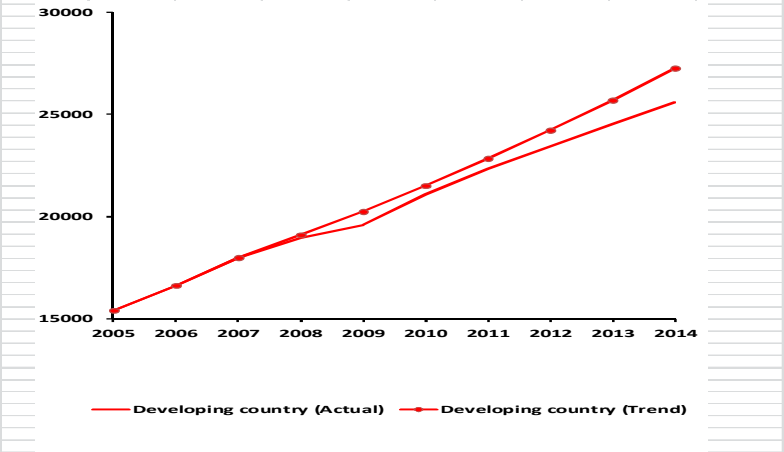


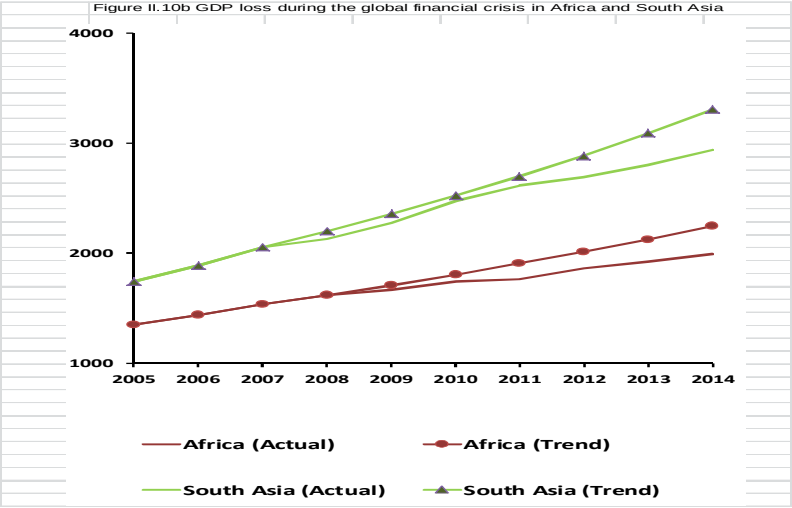
Figure II.9 Number of developing countries experienced recession



However, the eruption of the global financial crisis in 2008, as well as the food and fuel crises occurred in the same time, significantly disrupted the economic growth in many developing countries and unwound progress towards the achievements of MDGs. Although the global financial crisis was originated in major developed countries, the growth path of many developing countries has been substantially derailed. As illustrated in figures II.10a and II.10b, six years after the eruption of the global crisis, total output of developing countries is far below the trend line prior to the crisis, with a cumulative loss of GDP by $1.7 trillion (6.5 per cent). The loss for Africa is about $250 billion (12.7 per cent) and for South Asia $300 billion (12.5 per cent). The loss for Africa is equivalent to the ODA Africa received in the same period. Because of the global financial crisis, 20 million fewer people in sub-Saharan Africa have been out of poverty by 2015; and at the global level, an additional 55,000 infants might die in 2015; about 350,000 more students might be unable to complete primary school in 2015; and some 100 million more people might remain without access to an improved source of water (World Bank, 2010).

Figure II.10a GDP loss during the global financial crisis in developing countries





The experience in the MDG period indicates that maintaining broad macroeconomic stability would require **effective policies at least in three categories**. First, policies to ensure a structurally balanced domestic economy, avoiding high and escalating inflation, unsustainable government and private sector debt, boom and bust in investment, and large unemployment; Second, policies to mitigate the impact of external shocks when they occur, such as excess volatility in foreign capital flows, large fluctuation in international prices of oil and other primary commodities, sharp devaluation of local currencies, and large current account deficit; Last, policies at the international level to prevent frequent recurrence of international financial crises.

In the first category, most countries reply on monetary policy and fiscal policy, although specific policy instruments, scope and objectives can differ markedly from country to country, based on country-specific policy institutional settings and experience.

With respect to *monetary policy*, maintaining relatively low and stable inflation has long been an important objective of monetary policy in all countries, but a large number of Central Banks also have mandates to set other targets for monetary policy, such as full employment, exchange rate stability. Meanwhile, although short-term interest rates and open market operation have increasingly become the primary monetary policy instruments for many Central Banks, a number of Central Banks in developing countries have also relied on other instruments, such as reserve requirements, controlling of monetary aggregates and the ceiling of credits. In fact, in the aftermath of the global financial crisis, even the Central Banks in major developed countries have also adopted unconventional monetary policy instruments, such as the large-scale quantitative easing to directly increase the quantity of monetary base, because the crisis has damaged the banking and non-banking financial channels which connect conventional monetary policy to the real economy, rendering the policy interest rates ineffective. Therefore, monetary policy instruments and targets for an

economy should be in accordance with the stage of the development in its banking and financial system, and consistent with the specific economic circumstances.

In the past two decades, an increasing number of Central Banks have adopted a new monetary policy framework: targeting inflation only. However, after the global financial crisis, some of these countries tend to modify this framework, making it more flexible so as to strike a better balance among different aspects of the broadly defined macroeconomic stability, including inflation, employment and financial stability (see box II.2).

**********Beginning of Box II.2**********

Box II.2 Inflation targeting: rule versus flexibility

In the Inflation Targeting Framework (ITF), the Central Bank makes public its target inflation rate for a future period of 1-2 years and attempts to steer actual inflation towards the target through adjusting interest rates and other monetary instruments. In some countries, the target is set as a legal agreement between the Minister of Finance and the Governor of the Central Bank (Reserve Bank of New Zealand, 2012), with the latter fully accountable for the achievement of this target.

Since New Zealand formally adopted ITF in December 1989, all together 27 countries, including developed, developing and transition economies, have adopted this framework. Among them, 5 countries target a point and another 5 target a range, while the remaining 17 target a point with a tolerance band for inflation--or a flexible ITF. The targeted inflation rates vary from countries to countries, for example, 2 per cent for the European Central Bank, 4.5 per cent (target of 2016) for Brazil at, 4 per cent (of 2017) for the Russian Federation, and 8 per cent for Ghana.

The ITF was introduced to a large extent in response to the inflation escalation experienced by many economies in the 1980s. One merit of this framework is for the Central Bank to provide an anchor for the expectation of inflation in the economy, as a reinforced feedback between the observed inflation and the expectation of inflation was found to be a key driver for the inflation spiral in the 1980s. The framework may also strengthen the credibility of the central banks by giving them both more independence and accountability.

However, this framework has been criticized from its debut of some shortcomings. For example, by focusing exclusively on inflation, the Central Bank may become remiss in paying policy attention to many other factors which are equally important for the macroeconomic stability, such as unemployment and financial bubbles.

The criticism of ITF has been on the rise after the global financial crisis of 2008. As demonstrated by the experience in the run up to the global financial crisis, a stable inflation is

necessary but not a sufficient condition for macroeconomic stability. While Central Banks can effectively use their policy rates to control money growth and tame inflation, they may still encounter macroeconomic instability due to build up in asset prices, volatile capital flows or exchange rate fluctuations. More importantly, this policy framework becomes ineffective in the aftermath of the global financial crisis for boosting economic recovery and deal with deflationary pressures. More Central Banks are now pursuing a more flexible ITF, increasingly relying on a mix of tools, such as policy rates, macro-prudential regulations and exchange rate and capital account management, to achieve price and broader macroeconomic stability.

********* End of Box II.2 *******************

The mandates of *fiscal policy* include not only maintaining macroeconomic stability, but also provision of public goods and redistribution of income. Within the context of macroeconomic stability in this section, a key challenge for fiscal policy is to reduce its pro-cyclicality and enhance counter-cyclicality.

For decades prior to the MDG period, many developing countries tended to follow pro-cyclical fiscal policy: increasing government spending (or cutting taxes) during periods when the overall economy is in expansion, but cutting government spending (or raising taxes) during periods of recession (Kaminsky et al., 2004, and Ilzetski and Végh, 2008). For example, Kaminsky et al. (2004) documented that among 94 countries (21 developed and 73 developing) during the period of 1960-1999, more than 90 per cent of developing countries showed pro-cyclical fiscal policy, while 80 per cent of developing countries showed countercyclical fiscal policy.

However, since 2000, developing countries have improved the cyclical nature of their fiscal policy, with an increasing number of developing countries shifting fiscal policy from pro-cyclical to counter-cyclical. In the decade of 2000s, about 35 per cent of developing countries in the 73 as mentioned above showed a countercyclical fiscal policy (Frankel et al., 2011). According to some studies (World Bank, 2015; and Frankel, et al., 2013), three major factors may have contributed to this shift. First, a strengthening growth and rising prices of primary commodities in the 2000s have boosted government revenue in many developing countries, particularly emerging economies; Second, international debt relief initiatives, the Heavily Indebted Poor Countries (HIPC) Initiative and Multilateral Debt Relief Initiative (MDRI), reduced debt burdens for government budget in LDCs and other developing countries; Third, institutional reforms, including new budget institutions, in developing countries improved fiscal management. Due to the strengthened cyclical nature of fiscal policy in the 2000s, when the global financial crisis erupted in 2008, a number of developing countries were able to adopt sizeable counter-cyclical fiscal stimuli in 2009-2010 and managed to reduce the shocks, which could have otherwise led to even larger and longer impact on growth (as shown in figures II.7, II.10a and II.10b above) and MDG progress.

The experience of developing countries during the MDG period in reducing fiscal pro-cyclicality and enhancing counter-cyclicality included a few important institutional measures, including fiscal rule, medium-term expenditure frameworks, and stabilization funds. While the first two measures are briefly discussed below, stabilization funds will be elaborated latter.

A *fiscal rule* sets targets for government budgetary indicators, such as debt to GDP ratio, budget balance, expenditures, or revenues. Since the late 1990s, more than 30 developing countries have adopted fiscal rules, along with some 30 developed countries. Just as the ITF monetary rule mentioned earlier, fiscal rule has also received criticism particularly in the aftermath of the global financial crisis. For example, the austerity measures under the fiscal rules in the euro area after the sovereign debt crisis in Greece and a few other euro members were blamed for worsening the recession in those countries, and after 2012, the fiscal rules regarding the debt/GDP and deficit/GDP ratios were modified with more flexibility. Certain fiscal rules may lead to more, instead of reduce, pro-cyclicality (Bova, et al. 2014). Therefore, more flexible fiscal rules with cyclically-adjusted targets have become increasingly popular in developing as well as developed economies.

Medium-term expenditure frameworks (MTEFs) are for the Government to establish credible contracts for the budget for strategic priorities in the medium run, an average of three years, rather than annually. MTEFs were first used in developed countries to manage long-term fiscal policy priorities, but an increasing number of developing countries have also started to adopt this framework since the late 1990s. Currently, about 70 per cent of the countries in the world have adopted certain forms of MTEFs (World Bank, 2013a). The main objective of MTEFs is to establish and improve credibility in the budgetary process. Most MTEFs translate macroeconomic goals into budget aggregates and spending plans, but others could simply target aggregate fiscal goals. Empirical studies in general suggest MTEFs could improve fiscal discipline, but diversity exists across countries. For example, the experiences of some African countries showed that realistic expectations of revenues is needed in formulating MTEFs; otherwise, even well-designed MTEFs cannot succeed (Holmes and Evans, 2003).

Despite the improvement on the cyclical nature of fiscal policy in many developing countries, the capacity for conducting counter-cyclical fiscal policy remains weak in LDCs and other LICs. For these countries, in addition to the strengthening of domestic budget institutions as discussed above, the improvement on fiscal cyclicality will also depend on the improvement on the predictability of ODA flows they receive, as their budget revenues still rely highly on concessional resources (see more discussion on ODA in chapter V of WESS 2014/2015).

In the second category, developing countries need effective policies to deal with external shocks. As developing countries increasingly integrate their economies into the global economy, they are facing various external vulnerabilities through trade and financial

channels. For a group of emerging economies with their financial markets open, they are vulnerable to surge and reversal in short-term capital flows. For the commodity-exporting countries, they are vulnerable to the vicissitude of international prices of primary commodities. For the countries mainly exporting manufactured goods, they are vulnerable to the business cycles in major developed countries. The global financial crisis of 2008 and the attendant Great Recession have vividly demonstrated all these and other external vulnerabilities for developing countries.

For countries where government revenues depend highly on exports of primary commodities, *stabilization fund* has increasingly become a tool for mitigating the volatility in commodity prices. Stabilization funds are established on public revenues from natural resources, such as oil and natural gas, and can be used to stabilize the boom-bust cycles. Some 30 developing countries have such funds, and more than a half of them have been established since 2000. Many stabilization funds are integrated with government budgets with specified rules for their accumulation and withdrawal (Bagnall and Truman, 2013). Studies show these funds can smooth government expenditure and reduce volatility (Sugawara, 2014), but the effectiveness of these funds in shielding the domestic economy from the vicissitudes in commodity prices will depend on government commitment to fiscal discipline and macroeconomic management, rather than on just the existence of the instrument itself (Gill et al., 2014).

With respect to capital flows, in addition to the conventional monetary, fiscal and exchange rate policies, a number of developing countries have in the past several years introduced capital account management measures to contain volatile short-term capital flows.

Some countries, such as Croatia, Peru, and Republic of Korea, have used macro-prudential measures to stem capital inflows and excessive credit growth. Such policies include measures to maintain sound lending standards, countercyclical capital requirements to slow down credit expansion, and balance sheet restrictions such as limiting the foreign exchange positions of banks. While these measures appear to have lengthened the composition of capital inflows, the effect on total net flows was limited. For example, in Peru, where there is a large amount of dollarization in the economy mediated through the banking system, macro-prudential measures, such as limits on foreign exchange mismatches, have been relatively effective at reducing risks. In the Republic of Korea, a package of macro-prudential measures was introduced in 2009/2010; it appears to have brought about the intended deceleration in banksô foreign borrowing but did not stem the overall level of capital inflows.

Other countries, such as Indonesia and Brazil have used more direct capital account regulations. Most available studies find that capital controls have been effective in changing the composition of inflows away from short-term debt in many cases, but the results varied from country to country. More broadly, the effectiveness of measures depends on the specific circumstances of a country, including the quality of the existing regulatory

framework and regulatory capacity, the structure and persistence of inflows, and the design and implementation of capital flow management measures. In particular, capital account regulations may be particularly difficult to implement in countries where there is a large derivatives market, since speculators can often circumvent the restrictions through foreign exchange futures, options, and other derivatives. Thus some countries, such as Brazil, have implemented restrictions directly in the derivatives market, albeit at an initial low rate to test the market. Overall, there is no simple formula for effectively managing cross-border capital flows. Macroeconomic policies, macro-prudential tools and capital account regulations should be viewed as part of a package of measures that would vary in line with the specific circumstances of individual countries.

More generally, when and how to open their capital and financial accounts remain a critical policy challenge for many developing countries. The experience of countries with sustained growth shows that most of them were not quick to open their capital accounts. For example, China has not fully opened its capital account yet. When they started to open, they would follow a gradual pace with special attention to the sequencing. For example, a country should have its domestic financial market developed in terms of the depth and broadness, and have in place flexible market interest rates and exchange rate before opens its financial account, particularly when opens it to capital outflows. This is the dire lesson a number of the Asian economies learnt during the Asian financial crisis in the 1990s.

Developing countries are also challenged in striking a balance between the need for stability and the need for flexibility in their exchange rates, when both their current account and capital account open. After the Asian financial crisis of the late 1990s, an increasing number of developing countries moved away from the fixed exchange regimes towards more flexible regimes. However, since the global financial crisis of 2008, there has been a notable tendency for more countries to shift away from flexible exchange rate arrangements, reflecting of recurring pressure on the currencies of emerging market economies as a result of capital flow volatility (IMF, 2014).

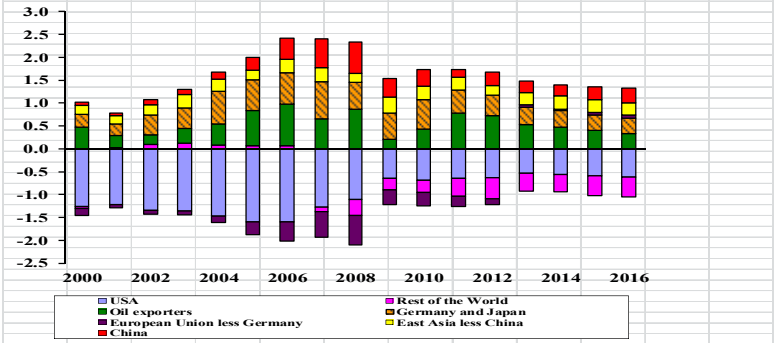
Another trend in the MDG era has been the continuous accumulation of foreign exchange reserves in developing countries, up by about 10 times from 2000 to 2014. This has strengthened the capacity of many developing countries to external shocks, but it comes with costs (United Nations, 2015). Such a built-up in self-insurance is also an indication of deficiency in the current international financial institutions (see discussion below and in the papers for chapter V of WESS 2014/2015).

In the third category of policies and strategies which are important for developing countries to maintain broad macroeconomic stability for sustained growth are those at the international and global levels, including international macroeconomic policy coordination and reforms of the international monetary system and international financial institutions.

One key driver for recent heightened volatility in capital inflows to developing countries has been the unconventional monetary policies adopted in major developed countries. More generally, the cross-border spillover effects of policies in major economies have been increasing on developing countries. Mitigating these spillover effects and other international repercussions requires international policy coordination. Indeed, in the aftermath of the global financial crisis, international policy coordination has been strengthened, particularly in G20. For example, the concerted policy stimuli in 2009-2010 and the framework for strong, sustainable and balanced growth in G20 have to some extent prevented the world economy from falling in otherwise even deeper recession. However, such policy coordination should also be promoted to more broadly representative international forums, particularly the United Nations, with the participation of more developing countries.

Another concrete example of the need for international policy coordination is to prevent global imbalances from reemerging, or ensure a benign adjustment when needed. The size of global current-account imbalances ballooned to 5.6 per cent of world gross product in the run-up to the global financial crisis, as one instability factor for the eruption of the crisis. After the crisis, it has narrowed to 3.5 per cent in 2014 (figure II.11). The policy coordination in G20 may have partly contributed to the adjustment, but a significant part of this narrowing appears to be driven by weaker demand in the deficit countries, a counter-productive adjustment, rather than a benign adjustment through stronger demand from the surplus countries. From the global perspective, the current magnitude of current-account imbalances does not appear to pose an imminent threat to the stability of the world economy in the near future. Nonetheless, there are still problems associated with the current pattern of imbalances and the ongoing adjustment processes, requiring better international policy coordination.

Figure II.11 Global imbalances, 2000-2016
(Current account balances in per cent of world gross product)



Source: Source: UN DESA based on IMF World Economic Outlook, October 2014. Data for 2015-2016 are forecasts

The eruption of the global financial crisis has further revealed the profound defects in international monetary and financial system. The international community has since taken important steps to strengthen the resilience of the financial sector through regulatory reform. To date, reforms have focused on regulation of the banking sector. Further progress is needed

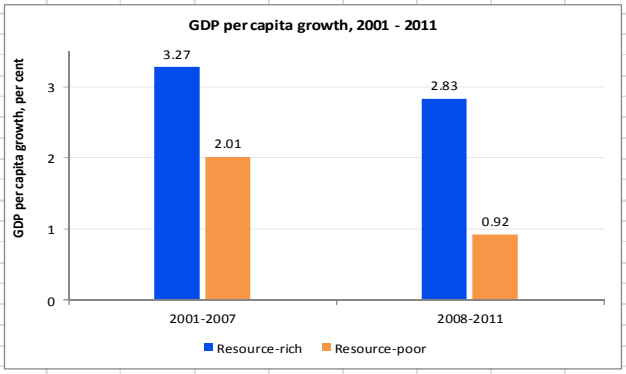
on other aspects of the international regulatory agenda, including addressing shadow banking and systemically important institutions that are considered ñtoo big to failò. There is also a need for stronger cross-border debt resolution regimes with fair burden sharing. The development and implementation of international financial regulation would also benefit from greater representation of and participation by developing countries. Progress continues to be made on international cooperation in tax matters. At the same time, timely implementation of the 2010 IMF quota and governance reform will pave the way for the next round of quota and voice reforms. Successful completion of further reforms of international financial institutions will boost the coherence and stability of the global financial system.

Chapter V of WESS 2014/2015 will discuss these and other issues related to the reform of international monetary and financial system, as well as global governance in general. Without a sound international institutional framework to effective prevent large-scale financial crisis from recurring and to forcefully contain it when crisis does occur, a large number of developing countries will continue to be vulnerable to various external shocks, with their achievement of development goals subject to frequent setbacks.

d) Making growth inclusive through employment and productive jobs

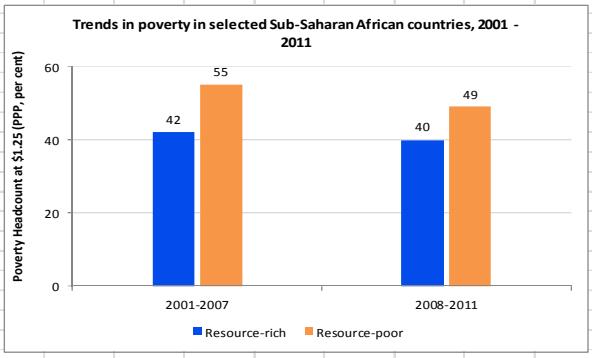
Experience in a number of African countries over the MDG period indicates that if growth is not inclusive, countries with higher growth may not perform better than countries with relatively lower growth, in terms of reducing poverty and achieving other MDGs. For example, Ethiopia and Rwanda registered an annual average growth of 8 to 10 per cent in the second half of the 2000s, reducing poverty by 1.3 to 1.7 percentage point annually; in contrast, with a similar robust growth of 6 to 7 per cent, Tanzania reduced the national poverty only by less than 0.5 percentage points in the same period, while Zambia, a resource-rich country, inched little in reducing poverty. As shown in figures II.12.a and II.12.b, although per capita GPD growth in resource-rich countries in Africa was measurably higher than in resource-poor countries in the region, from the period of 2001-2007 to 2008-2011, poverty reduction in the former was actually lower than in the latter. In fact, measured by other MDG indicators, for example, as shown in a few figures earlier (figures, II.2, II.3), resource-rich countries such as Gabon, Equatorial Guinea, and Nigeria are disproportionately among the poorer performers, despite GDP growth rates in these countries have on average been twice as high over the past 15 years as those in resource-poor countries.

Figure II.12a GDP per capita growth in Africa (2001-2011)



Source:

Figure II.12b Poverty reduction in Africa (2001-2011)



Source:

One factor behind the mediocre growth effects on poverty reduction and other MDGs in resource-rich African countries is the fact that resources sector is capital-intensive, not sufficiently inclusive in terms of creating jobs. In resource-rich countries, increase in resource rent accounts for a larger share in contribution to GDP growth than value added in other sectors, such as agriculture, services and manufacturing; however, the share of employment in resources sector is significantly smaller than in other sectors (World Bank, 2014).

As labour earnings are the major sources of income for the poor, employment and productive jobs are the two key elements, among others, for defining inclusive growth.

The general employment situation in developing countries remains challenging, although it varies across regions. The highest unemployment rates continue to be registered in North Africa and Western Asia, currently about 11-12 per cent, higher than the period before the global financial crisis, and featuring extremely high structural unemployment, particularly among youth. In comparison, unemployment rates are relatively low in East Asia and South Asia, at about 4-4.5 per cent (United Nations, 2015).

In many developing countries, the unemployment rate is, however, only a limited indicator, given the high prevalence of informal and vulnerable employment. For example, vulnerable employment rate, defined as the percentage of own-account and unpaid family workers in total employment, averaged 56 per cent of in developing regions in 2013 (compared to 10 per cent in developed regions), after a decline by 6.8 percentage points in the

decade before. Workers in such situations usually lack adequate social protection and suffer low incomes and arduous working conditions. Vulnerable employment rates are notably higher for women than for men. The largest gender gaps in this area were found in Northern Africa, sub-Saharan Africa, and Western Asia (United Nations, 2014d).

Meanwhile, average annual labour productivity growth rates slowed down markedly in most developing countries from 5.6 per cent in the period 2003ï 2008, to 4.0 per cent in the period 2008ï 2013.

Facing these challenges, policies to make growth inclusive through promoting employment and productive jobs should at least cover **three areas**: boosting labour demand and job creation, building the human capital, and increasing labour income and productivity.

One set of policies to boost **labour demand** is focused on improving business environment for enterprises so that they can expand their production and create more jobs. These include policies to improve access to finance for enterprises, reduce the costs and volatility of finance, improve enterprisesô access to markets through governmentôs increasing investment in infrastructure, such as road, telecommunication and energy supply; and other policy measures to reduce corruption, regulatory uncertainty, and regulation costs, or governmentôs trade and investment promotion policies in general.

Another set of policies to boost labour demand is focused on reducing hiring costs. Government policy also affects the cost of hiring workers. If policies increase labor costs for the purpose of improving workersô benefits, such as health insurance, pension benefits, the impact on the overall labor market may not be negative. However, some regulations can raise labor costs without contributing to workersô benefits, discouraging employment. For example, minimum wages, leave requirements, and dismissal benefits can protect workers. Designed well, these policies can actually increase employment and improve matching. But designed wrongly, they can reduce firmsô demand for some types of jobs and workers. In some countries, over strict labor standards may create large number of informal sector workers who fail to benefit from social protection, and receive low and uncertain wages (World Bank, 2013b).

Small and Medium Size Enterprise (SMEs) require special policy attention, as they play a key role in creating jobs. For example, a study by Ayyagari, Demirguc-Kunt, and Maksimovic (2011) of 99 countries shows that SMEs are important, and in some cases, the biggest contributors to total employment and job creation across developing countries. Not only do they employ the largest number of people, but they also generate most of the new jobs. SMEs have the highest employment growth rates, and in many developing countries, small mature firms have the largest share of job creation. Supporting innovation and enhancing access to finance are central to the policies for SMEs.

Moreover, counter-cyclical macroeconomic policies as discussed in the previous section are also important for maintaining labour demand. Particularly, when the economy is in a downturn either caused by external shocks or domestic financial crisis, counter-cyclical

monetary and fiscal policies to stimulate aggregate demand can play a crucial role in reducing the loss of jobs.

On the supply side of labour, policies for building and improving the **human capital** remain fundamental to enhancing labor incomes and are central to giving equal opportunities to poorer people for jobs. A number of such policies have already been discussed in the section on necessary conditions for sustained growth, where human capital was considered as a key factor for sustained growth.

Building the human capital for individual workers is a life-long process, as labour skills require a continuous improvement along with the constant change in technology. Skills are crucial to improving workersô employment opportunities and outcomes. In many developing countries of persistently high unemployment, insufficient demand for workers remains a serious problem, but skills mismatches as the result of workers inadequately equipped for the job requirements are also an important cause. Moreover, as a country develops from a low-income economy to a middle-income one, the skills need to upgrade constantly. Therefore, policies for improving and promoting workersô skills are critical to employment and productivity, thus to inclusive growth. These policies range from those for early child development, to those for on-the-job training, and to policies for matching the supply of skills with the demand.

While policies for promoting labour demand and supporting labour supply would mainly ensure sufficient quantities of employment, policies for increasing **labour income and productivity** would further enhance the inclusiveness of growth, strengthening the growth effects on poverty reduction and the achievement of other development goals.

Experience of some developing countries indicates increases in growth of earnings per worker were more important for reducing poverty than increases in employment (Inchauste and Saavedra-Chanduvi, forthcoming). The contribution of increase in labour income can account for more than half of the reduction in poverty, more than the contribution of non-labour income, such as government spending on subsidies and transfers, as well as private transfers.

In the long run, increase in labour income would depend highly on growth of labour productivity. As discussed above, policies to improve individual workersô skills can strengthen labour productive, but policies that can lead to economic structural transformation are also important for lifting labour productivity in the economy.

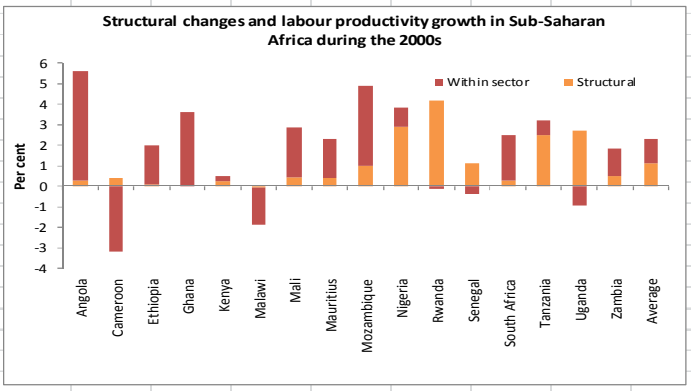
For example, the remarkable achievement in poverty reduction in East Asia, including China, over the past decades, and more recently in South Asia, has been associated with policies to transform the economic structure, transferring millions of people from the low-productive agricultural sector to relatively higher-productive manufacturing and services sectors. In this process of transformation, a large number of poor farmers have significantly increased their productivity when they became factory workers, and raised their earnings. A study by Dinh et al (2012) shows that in this process of structural transformation, with a short period of training, the wage premium of workers can increase substantially.

However, the structural transformation in sub-Sahara Africa seems to be on a path different from Asia: the share of agriculture in GDP is declining (similar to Asia), but so is that of manufacturing, with the share of services sectors rising rapidly. Despite a declining share of agriculture to an average of 15 of GDP, 59 percent of the labor force continues to be in this sector, with more poor people than other sectors. Therefore, in sub-Sahara Africa, responsiveness of poverty reduction to agricultural growth and rural economic growth is likely to be higher than to growth in other sectors.

A study by Diao et al (2012) for six Sub-Saharan African countries found that the growth effect on the poverty reduction driven by agricultural growth was 53 per cent to 127 per cent larger than the effect from nonagricultural growth. Moreover, the study also showed that, if agricultural sector could be further split into sub-sectors, growth that positively affects smallholder staple crop productivity, as compared to export crops, was more poverty reducing. A study by Hill and Tsehaye (2014) on the poverty-growth links in Ethiopia found that agricultural growth was significantly related to the decline in poverty in Ethiopia: zones with the fastest increase in agricultural production experienced the largest decline in poverty. The growth elasticity of poverty reduction can go as high as 2 per cent. By contrast, growth in manufacturing and services has not exerted a statistically significant impact on poverty reduction. Rwandaôs experience confirmed the same findings (World Bank, 2014b).

McMillan and Harttgen (2014) found that in a sample of 16 sub-Saharan African countries labor reallocation across sectors accounted on average for about half of overall labor productivity growth during part of the MDG era (figure II.13), although there was substantial heterogeneity across countries. Further, a study by Christiaensen and Kaminski (2014) on Uganda found that 70 per cent of decline in the poverty headcount in 2005-2009 resulted from raising agricultural incomes among people staying in agriculture. The other one-third came from rural nonfarm diversification. Fostering non-agriculture (in both rural and urban areas) appeared disproportionally good for growth, and fostering agricultural productivity appeared disproportionally good for poverty reduction. Structural transformation into the rural economy (rural nonfarm income diversification) benefited both poverty and growth.

Figure II.13 Structural changes and labour productivity growth in sub-Sahara Africa



In general, the sectoral composition of growth can influence the inclusiveness of growth and the growth effects on poverty reduction (Loayza and Raddatz 2010). Sectors that are more labor intensive (in relation to their size) tend to have stronger effects on poverty alleviation. Agriculture and informal off-farm services are the most poverty-reducing occupations, followed by construction and low-skilled manufacturing, while growth in less labor-intensive mining, utilities, and formal sector services by themselves do not seem to help reduce extreme poverty and foster shared prosperity.

More generally, given the co-existence of low- and high-productivity sectors in many low-income developing countries, and the opportunities this provides for reallocating people from low- to high-productivity sectors (Lewis, 1954), growth in overall labor productivity can be achieved in two ways: by increasing labour productivity within existing economic activities (through technological change (increasing total factor productivity), capital accumulation, or shifts in the terms of trade; and by moving labor from low- to high-productivity sectors (the structural transformation). Contributions of the latter depend on the labor productivity gap between both sectors, and the speed with which labor is reallocated. Policies to foster sectoral growth and remove barriers to labor movement can facilitate this structural change. Increasing land tenure security can, for example, help release labor for the non-agricultural sector while also fostering investment in land productivity increasing measures such as agro-forestry and erosion control. Investments in rural public goods (such as, education, health, rural roads, electricity, and information and communication technology) and services will be equally important to boost the rural economy and facilitate the structural transformation through rural income diversification, while also equipping the next generation for migration to the cities (World Bank, 2014c).

e) Making growth equitable by improving equality in opportunity and outcome

In addition to inclusive growth as discussed above, equitable growth can further enhance the growth effects on poverty reduction and other development goals. While inclusive growth is focused on the broadness in participating in and benefiting from economic growth, equitable growth is focused on a higher quality of growth: equal opportunity in participation and fair sharing of the growth outcome. However, equitable growth and inclusive growth are interconnected: for example, a growth which is not inclusive cannot be equitable. Many policies for promoting inclusive growth and equitable growth are therefore overlapping as shown in the discussed below.

Equality per se is among the universally agreed fundamental values and principles for humankind to pursue, as enshrined in the Charter of the United Nations. It was also reiterated in the Millennium Declaration as one of the six fundamental values to be essential to international relations in the twenty-first century, namely, freedom, equality, solidarity, tolerance, respect for nature and shared responsibility. Among the MDGs, while goal 3 is explicitly set to promote gender equality, the other goals, when they are achieved, can also promote equality from various perspectives and in multi-dimensions.

During the MDG period, progress made towards the achievements of the MDGs, such as the 700 million people freed from extreme poverty, the reduction in hunger, the improvement in health, the achieving of gender parity (or near) in primary education, and the increase in the political participation of women, all has led to improvement in equality of opportunity and equality in other dimensions. However, significant disparities remain among different groups of people, with respect of age, sex, race, ethnicity, origin, religion, and economic and social status, in their opportunities to access education, health, jobs, and financial services, as well as in their representation in political voice and participation in decision-making. For example, as shown in figures II.14a and II.14b, inequality in receiving education has declined over time in all developing regions, but disparities remain significantly between genders particularly in South Asia, sub-Sahara Africa, North Africa and Western Asia. Opportunities for children from families of different economic status to attend primary school are also conspicuously unequal in many developing countries (figure II.15). Meanwhile, during the past two decades, income inequality and wealth inequality have widened considerably in a large number of countries. For example, between 1990 and 2012, income inequality after taxes and transfers increased in 65 out of 130 countries for which data are available. These countries are home to more than two thirds of the world population (United Nations, 2013a).

Figure II.14a Gini coefficients of educational inequality by sex in some regions (1950)

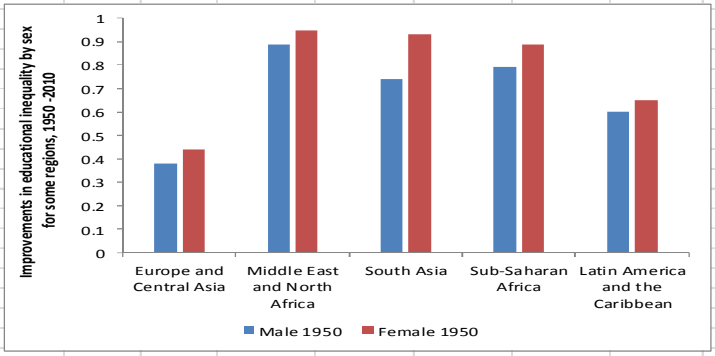
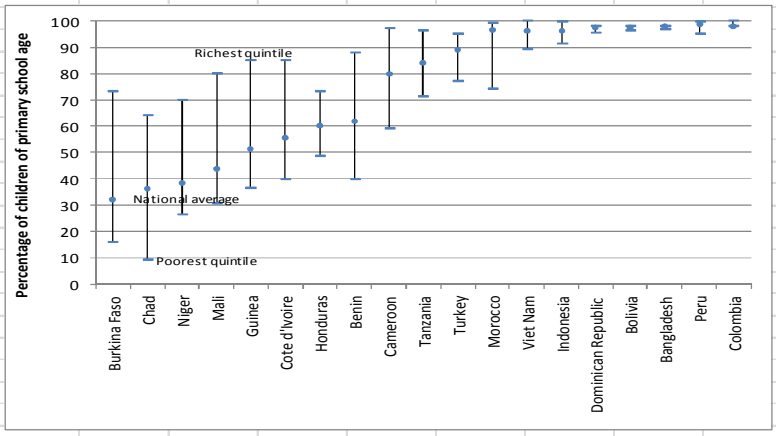


Figure II.14b Gini coefficients of educational inequality by sex in some regions (2010)

Figure II.15
Proportion of children attending primary school by wealth quintile, late 2000s



Therefore, tackling inequality in all dimensions has become a key element on the post-2015 development agenda. For example, when the OWG of the General Assembly proposed the SDGs, it has set a goal to ñreduce inequality within and among countriesò, in addition to making equality a cross-cutting issue embedded in almost all other SDGs. The proposed SDGs included some specific targets for ensuring equal opportunity and reducing inequalities of outcome. For example, a target is set to achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average by 2030 progressively.

Experience from MDGs and other development goals shows that policies are needed in at least **three broad categories** in order to make growth more equitable: **policies for improving equal opportunity, policies for reducing income inequality, and social safety nets for the most vulnerable and universal social protection floors.**

In the **first category**, policies for improving equality in opportunity are those to level the playing fields for all people irrespective of their group identities, such as policies to focus on early children development, quantity and quality of schooling, skills training, social security, health, access to capital and land, justice system, access to infrastructure and public services, and access to jobs and markets.

Some of these policy areas seem overlapping with those for promoting inclusive growth as discussed earlier. Policies to strengthen human capital through education and health are as important for improving equality in opportunity as they are for promoting inclusive growth, but the nuance here is to emphasize on further targeting the disadvantageous groups of people, such as the children in the poor, the families in rural and remote areas, girls, women, minority ethnical groups, so that they can narrow their opportunity gaps with other groups.

For example, narrowing ***women's opportunity*** gap in access employment can make growth more equitable, inclusive and sustained.

Despite some progress in the MDG era, worldwide, 48 percent of womenôs productive potential is unused, compared with 22 percent of menôs (World Bank, 2014d). In addition to a lower likelihood of being employed than men, women are far more likely than men to have part-time jobs and be in time-related underemployment. The proportion of women in part-time employment is more than double that of men in almost all countries where data are available (United Nations, 2014d).

Growth can improve gender equality, as higher incomes can enable households to spend more equally on education for girls and boys, and improve maternal and child health. However, growth does not always improve gender equality, depending on the nature of the growth strategy (Kabeer and Natali, 2013).

As the income of the woman rises through their employment relatively to the man in a household, spending on food, health, and education rise, investments in children are greater, there is more use of prenatal care, and womenôs risk of domestic violence is lower (Beegle, Goldstein, and Rosas 2011). When more women have the opportunity to realize their potential through employment and participation in other economic and political activities, they can improve their ability to make decisions about their lives and act on them. For example, in Vietnam, women who hold joint title with their husbands are more aware of legal issues, have more say in the use and disposition of land, and are more likely to earn independent incomes than those who do not hold joint title. In India, a law reserving a share of government offices for women has improved parentsô aspirations for their daughters, as well as the aspirations of girls themselves.

Policies which can lift constraints and empower women include those to improve education and training, make tax rules more equitable, use social protection programs to tackle regressive gender norms, and promote menôs role as gender-equitable caregivers. More specific measures for promote womenôs employment include more family friendly policies to encourage a better work-family balance and enhance the quality of part-time jobs, and legislation on flexible time, parental leave, childcare and elderly-care facilities. More general policy framework is also needed to link the functioning of households, markets, and institutions to broad gender inequality in health and education, economic opportunity, and voice etc. (World Bank, 2012).

In addition to strengthening human capital, improving equal access to other productive factors, such as capital and land, is also important for improving equal opportunity and making growth more equitable. However, policies and strategies in this area are also among the most challenging ones to design and implement.

For example, many developing countries have taken various forms of ***land reforms*** in order to improve greater equity in access to land, but the results are mixed.

Landownership in many countries is highly unequal. The landless are among the poorest in developing countries. Inequalities in landownership can weigh particularly heavily on women. In some countries, prevailing pattern of landownership is a legacy of historical discrimination against certain groups. Moreover, unequal land distribution is also found to correlate with lower overall economic growth (Deininger and Olinto, 2000). Land ownership can not only provide a means of livelihood, but also be used as collateral for credit and insurance, as well as have influence in political participation. Therefore, addressing unequal land distribution can have far-reaching implications for improving social equity and economic efficiency.

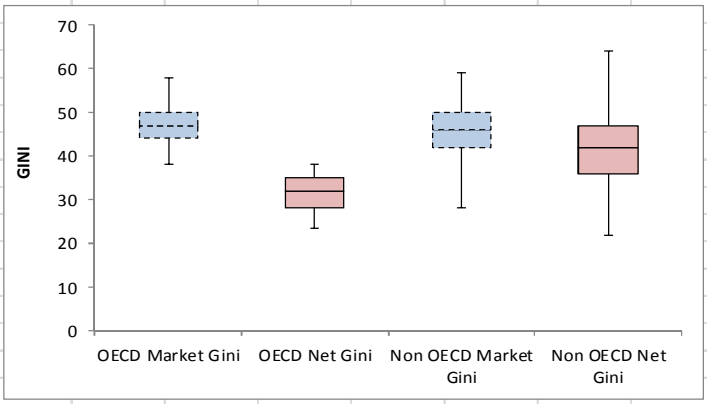
In practice, however, significant hurdles remain in land reforms. For example, as shown in a study by World Bank (2006), transformative land reforms in some Asian economies, such as China, Japan, the Republic of Korea, and Taiwan (Province of China) were rare and often associated with exceptional events, such as revolution or political upheaval. In India, abolishing the land rights of rent-collecting intermediaries has been highly successful, whereas the implementation of landownership ceilings and laws to protect tenants was mixed. In Latin America, land reforms have generally been ñincomplete.ò In Africa, post-independence reforms in Kenya and Zimbabwe were quite effective but did not last. The governmentôs land redistribution program in South Africa launched in the 1990 fell short of its targets set for 2014.

While the economic and political complexities behind the successes and failures in land reforms for many countries are beyond the analysis of this report, a few lessons as provided by many studies indicate: first, it is important to secure the ownership for those who gain access to redistributed land, so as to reduce uncertainty and encourage investment (or in the case of public ownership, as in China, a long-term (70 years) contact can to some extent play a similar role); second, it is also important to provide beneficiaries with assistance, such as technical training and Credit, so as to ensure self-sufficiency and maximize productivity; in addition, transparency and rules are also critical in the process land redistribution.

In the **second category**, policies to reduce income inequality are those aiming at redistributing income through various progressive tax frameworks to reduce disposable income of high-income groups and also transferring certain part of the tax revenue to low-income groups so as to raise their disposable income. The other part of the tax revenue is used for financing public goods and services.

Tax and transfer have played a significant role in lowering inequality in developed countries. For instance, in 2010, in Finland, the (market) Gini coefficient was 49, but the net Gini coefficient after the policy effects of tax and transfers lowered to 27; in France, from 51 to 31; in in Germany, from 51 to 29; in the United Kingdome, from 53 to 34; and in the United States, from 51 to 39 (OECD, 2015). As shown in figure II.16, government redistributive policies in developed countries can substantially reduce income inequality, lowering the Gini coefficients by about 14 percentage points on average.

Figure II.16 Redistributive effects in OECD and Non-OECD (2000-2010)



However, as also shown in figure II.16, the effects of government redistributive policies in developing countries are very limited, lowering the inequality measure by a few percentage points. One obvious reason is the limited fiscal capacity of the Governments in developing countries. For example, tax revenues in most developing countries are only in the range of 15ï 20 per cent of GDP, compared with the range of 30-50 per cent of GDP in developed economies. Lower tax-to-GDP ratios in developing countries limit the scope for social spending to obtain a more equitable distribution of income. Nevertheless, bucking the general trend of rising inequality in many countries in the world, a number of countries in Latin America have managed to reduce their inequality in the past decade through various redistributive policies, although the Gini coefficients in the region remain high.

In the **third category** of policies to make growth more equitable are social safety nets to target the poor and vulnerable and universal social protection floors.

As discussed above, the policies to improve equal opportunity and reduce income inequality are important for promoting equitable growth, but these policies may take too long to show their effects (such as those focusing on early child development to strengthen human capital) or have only moderate effects (such as redistributive effects in low-income countries). These policies may not effectively reach those who are in extremely poor and vulnerable situation because of disability, discrimination, illness, or because of unexpected shocks, natural disasters. Under these circumstances, social safety nets are needed.

Social safety nets can be categorized by the type of benefit: cash or in-kind, and program requirements: conditional or unconditional. *Conditional cash transfers* (CCTs) provide cash to participants upon their fulfillment of a set of conditions or co-responsibilities, such as ensuring a minimum level of school attendance by children, undertaking regular visits to health facilities, or attending skills training programs. *Unconditional cash transfers* (UCTs) provide cash without particular co-responsibilities, targeting particular categories of people, such as the elderly or orphan children. *Conditional in-kind transfers* (CITs) provide

in-kind benefits to participants upon their fulfillment of the kinds of conditions similar to those under CCTs. *Unconditional in-kind transfers* (UITs) distribute food, vouchers, or other in-kind transfers without any form of conditionality or co-responsibility. Each of these can be combined with public works programs (PWs), which provide employment in activities, such as building or rehabilitating community assets and public infrastructure that require manual labor. Some programs provide seasonal, labor-intensive employment for poor and food-insecure populations.

While specific cases of social safety nets will be discussed in Chapter III of WESS 2014/2015 along with other MDG-specific policies, in general, they are found to be important for directly reducing poverty and inequality. At the individual level, they can protect human capital; at the community level, they can provide new infrastructure and increased demand; and at the country level, they can stabilize aggregate macroeconomic demand and improve social cohesion (World Bank, 2014a). Safety nets are most needed in low-income countries where crises can inflict permanent harm on peopleôs health, education, and capacity. However, as social safety net programs often involve several ministries, strengthened coordination is critical in ensuring successful implementation. Small programmes can also be consolidated into large ones to improve efficiency. Some social safety nets progarmmes may also include various subsidies, such as fuel subsidies, which may benefit people who are not poor. Reaching the remaining extreme poor and improving targeting are the key challenges for social safety net progarmmes in many countries.

While social safety nets target the poor and vulnerable, the *social protection floors* (SPFs) are designed to provide universal protection of all in need of such protection, based on human rights to social security, an initiative by the International Labour Organization increasingly endorsed by the UN system and other international agencies at large (ILO, 2012). Theoretically, social safety nets are the subset of SPFs, with the latter more systemic and universal. SPFs are nationally defined sets of at least four basic social security guarantees that ensure: essential health care, including maternity care, at a nationally defined minimum level that meets the criteria of availability, accessibility, acceptability, and quality; basic income security for children at a nationally defined minimum level, including access to nutrition, education, care, and any other necessary goods and services; basic income security at a nationally defined minimum level for persons of active age who are unable to earn sufficient income, in particular in the case of sickness, unemployment, maternity, and disability; and basic income security at a nationally defined minimum level for older persons.

So far, several countries have undertaken efforts to implement components of their national SPF. These countries differ substantially in their level of development. Some countries which have been implementing country-wide social protection programmes for decades see SPF as a renewal of their focus on ensuring that social protection systems are equitable; Other countries see their involvement in SPF as a continuation and improvement of the work they have already begun; Still other countries take SPF for outlining their first structured and systematic plan for the development of a social protection system.

While national governments are primarily responsible for taking policies and strategies to make their growth more equitable and tackle multi-dimensional inequalities, **global efforts** are also important for reducing multi-dimensional inequality both among and within countries.

From the perspective of improving equal opportunity among countries, global markets of goods, services, technology, labour and capital are far from equitable, and the rules governing these markets are disproportionately not in favour of developing countries. Leveling the global economic playing fields requires more equitable rules, and more representation and participation of developing countries in rule-setting. Meanwhile, in views of reducing international income inequality, the amount and effectiveness of ODA, and the broad global partnership for development, all need to be strengthened. These issues will be discussed in chapter V of WESS 2014/2015.

III. Transforming MDG growth pattern for SDGs

In the discussion above, a number of policies and strategies have been identified under the two broad themes as important macro enablers for the achievement of MDGs. At issue is how useful, or relevant, these enablers will be in post-2015 to support the achievement of SDGs. As some of SDGs are set to compete the unfinished business of MDGs, such as poverty eradication and a number of goals in education, heath, gender equality, most macro enablers should continue to play pivotal roles. However, a significant difference in the transition from MDGs to SDGs is that SDGs requires integration of the three dimensions of sustainable development: pursuing a balanced development in economic efficiency, social equity and environmental sustainability. From this perspective, some macro MDG enablers may require modification or redesign before they can be better applicable to SDGs in post-2015.

Here is a summary of the major lessons as discussed above under the theme of ñsustained, inclusive and equitable growth as the effective path towards MDGsò.

Lesson II.1

People-centered policies, such as those to strengthen human capital through public spending on early child development, education, training, health, social safety nets and universal social protection floors, are the most effective policies to promote sustained, inclusive and equitable growth for MDGs.

Lesson II.2

High level of investment in productive capacity, improvement in human capital and technological innovation are among the key factors for supporting sustained growth.

Lesson II.2.1

Government plays a key role in investment in infrastructure, which can crowd in private investment and significantly raise economy-wide productivity;

Public-private partnerships can be used for expanding infrastructural investment, but proper terms and regulations should be well established for sharing risks and profits;

High level investment, public or private, requires high domestic savings, while foreign savings, in terms of capital inflows, can only be complementary;

An effective, stable and inclusive financial sector is important for mobilizing domestic savings, channeling funds to productive investment and redistributing risks.

Lesson II.2.2

Technological innovation advances the productivity of capital and labour, generating additional growth out of the existing resources and transforming the economic structure;

Technology transfer is not mechanic copying, but requires painstaking efforts in recipient countries to adopt and master new technology;

Industrial policy, trade policy, and investment policy, along with other policies can promote technological innovation and transfer, but countries are challenged to select the right policies in accordance with their specific circumstance.

Lesson II.3

Policies to manage broad macroeconomic stability, including the stability of prices, aggregate demand, employment, public and private finance, and balance of payment, are important for sustained growth;

Lesson II.3.1

Monetary policy instruments and targets should be in accordance with the countryôs stage of economic and financial development and consistent with the specific economic circumstances.

More efforts are needed to reduce fiscal pro-cyclicality and enhance counter-cyclicality, through measures such as fiscal rules, medium-term expenditure frameworks, and stabilization funds;

In addition to the strengthening of domestic institutions, the improvement on fiscal cyclicality in LDCs will also depend on the improvement on the predictability of ODA flows;

Fiscal policy needs to coordinates its multi-functions of provision of public goods, macroeconomic stabilization, and income redistribution.

In setting of both monetary and fiscal policies, it requires a balance between rules and flexibility.

Lesson II.3.2

Stabilization fund has increasingly become a tool for mitigating the volatility in commodity prices;

Prudence must be shown in the pacing and sequencing when developing countries open capital and financial accounts;

Macroeconomic policies, macro-prudential tools and capital account regulations are part of a package of measures to manage capital flows;

Developing countries are challenged by the dual needs for stability and flexibility in the exchange rate regime.

Lesson II.3.3

Maintaining broad macroeconomic stability in developing countries requires international macroeconomic policy coordination and reforms of the international monetary system and international financial institutions.

Lesson II.4

Employment and productive jobs are the two key elements, among others, for making growth inclusive.

Lesson II.4.1

labour demand can be boosted by policies to improve business environment, reduce unnecessary hiring costs, and support small and medium enterprises;

Lesson II.4.2

Labour skills require a continuous life-long improvement along with the constant change in technology;

Lesson II.4.3

In the long run, increase in labour income would depend on growth of labour productivity. Policies to improve individual workersô skills can strengthen labour productive, and policies to transform economic structure can lift economy-wide labour productivity;

Lesson II.5

Policies for improving equal opportunity, reducing income inequality, and providing social safety nets for the most vulnerable and universal social protection floors can make growth equitable.

Lesson II.5.1

Policies for improving equality in opportunity are those to level the playing fields for all people irrespective of their group identities, such as measures for early child development, quantity and quality of schooling, skills training, health, access to capital and land, justice system, access to infrastructure and public services, and access to jobs and markets;

Narrowing womenôs opportunity gaps in employment and wages can make growth more equitable, inclusive and sustained. Policies to empower women include those to improve education and training, make tax rules more equitable, use social protection programs to tackle regressive gender norms, and promote menôs role as gender-equitable caregivers;

Improving equal access to capital and land is important for equal opportunity. Addressing unequal land distribution can have far-reaching implications for improving social equity and economic efficiency, but significant hurdles remain in land reforms.

Lesson II.5.2

Income inequality can be reduced through various progressive tax frameworks and transfers. Lower tax-to-GDP ratios in developing countries limit the scope for redistributive measures;

Various types of social safety nets can be combined with public works programmes to reduce poverty and inequality;

Social protection floors are nationally defined sets of basic social security guarantees to ensure essential health care; basic income security for children; for persons in the case of sickness, unemployment, maternity and disability; and for older persons.

Lesson II.5.3

Global efforts are important for reducing multi-dimensional inequality both among and within countries. Global markets of goods, services, technology, labour and capital are far from equitable, and the rules governing these markets are disproportionately not in favour of developing countries.

Are these lessons useful for SDGs?

Yes, but one profound transformation is needed to replace ñsustained, inclusive and equitable growthò by ñsustainable, inclusive and equitable growthò. As defined earlier, sustained growth refers to a robust growth lasting for two or three decades, so as to leave a significant impact on poverty reduction and other MDGs; however, from the lens of sustainable development, a vision for horizon of two or three decades is myopia, as

sustainable development is not only for meeting the present need, but also for protecting the capacity of meeting the need of future generations.

From the lens of sustainable development, the current pattern of growth in the world economy is not sustainable. For instance, GDP per capita growth has been closed associated with increase in carbon dioxide emission, which is a main cause of the global comate change. The faster the growth is for a region, the higher is the emission, such as East Asia and South Asia (figures II.17 a-e). Even in developed countries (figure III.18), where the post-industrial structural transformation, new technology, trade, and certain environmental policies have resulted in stabilizing the carbon intensity in GDP, the carbon emission continues to increase whenever growth accelerates beyond certain pace (above 2 per cent).

Figure II.17 a Trends in East Asia and Pacific

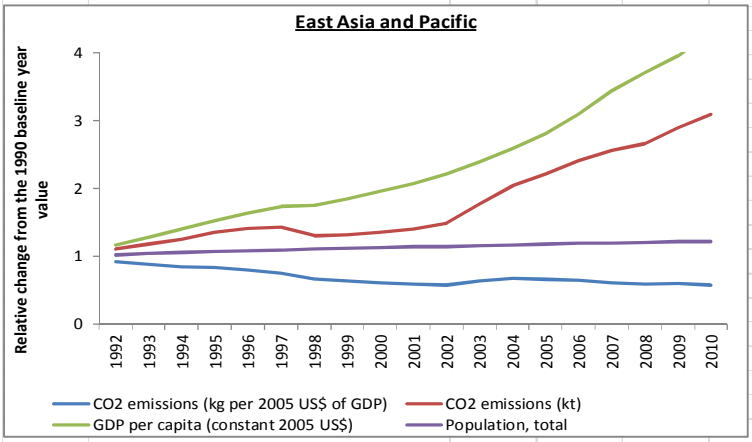


Figure II.17b Trends in Latin America and the Caribbean

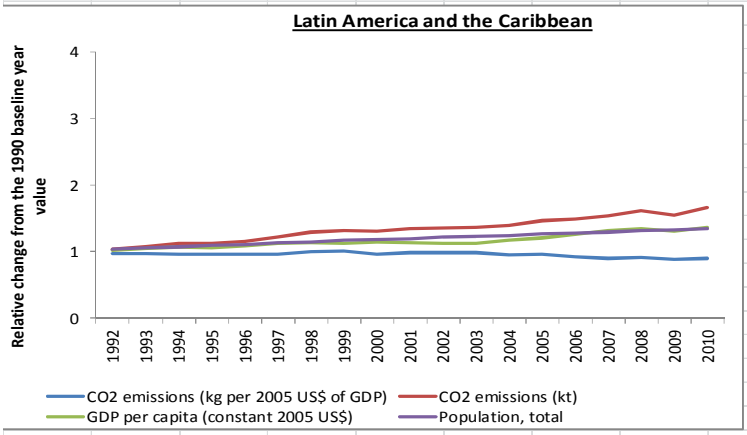


Figure II.17 c Trends in Western Asia and North Africa

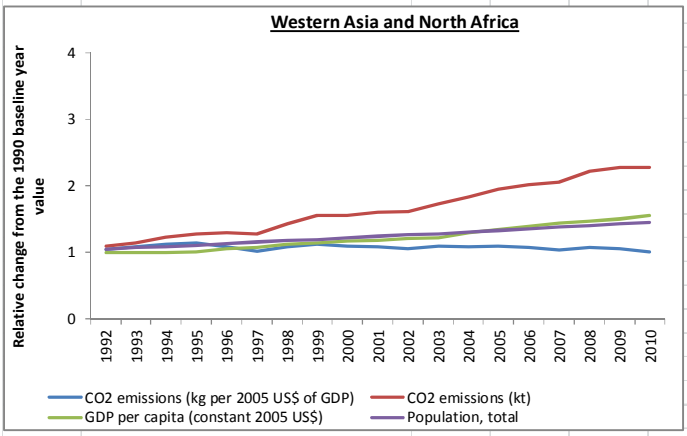


Figure II.17 d Trends in sub-Sahara Africa

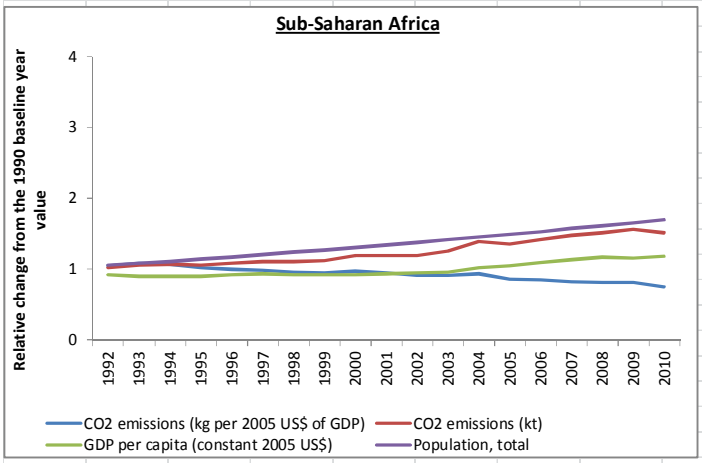
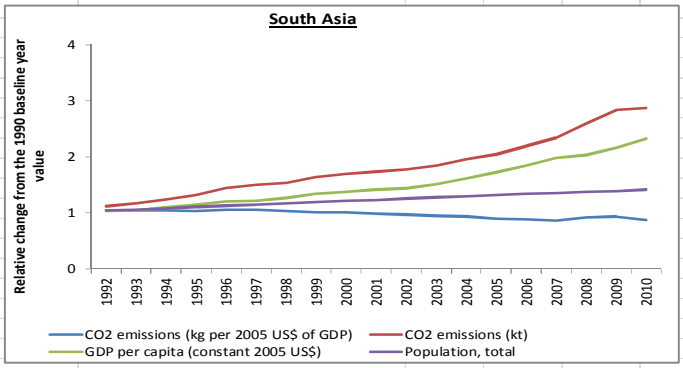
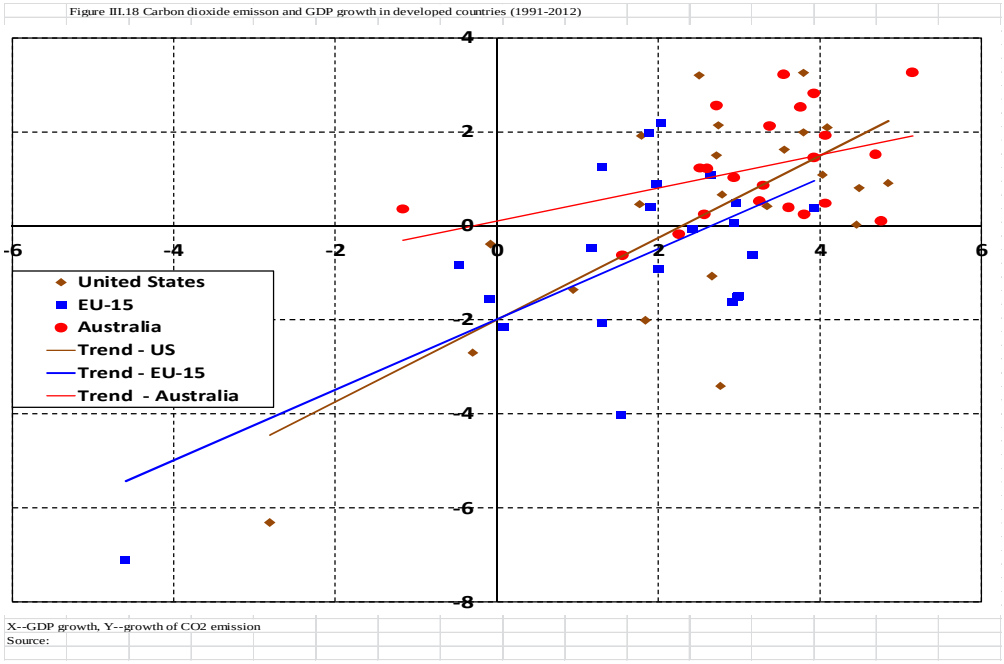


Figure II.17e Trends in South Asia





More generally, environmental sustainability challenges, such as resource depletion, ecosystem degradation, and climate change have increasingly eroded the hard-earned gains in economic and social development in many developing countries. For example, some estimates show that the costs of environmental degradation in many developing countries can reach 3 to 10 percent of their GDP (World Bank, 2014a). In Ghana, for example, such costs are equivalent to 9.6 percent of GDP, and in China, 9 percent. In some locations, the impacts of extreme weather-related events such as heat waves, droughts, floods, cyclones, and wildfires are already evincing the vulnerability of human and natural systems to current climate variability and future changes (IPCC, 2014). Moreover, the poor people are usually the most susceptible to these disasters.

Therefore, as environmental sustainability is becoming increasingly challenging, the conventional pattern of ñsustained growthò has increasingly become unviable. The alternative model is, however, neither non-growth, nor de-growth, at least not for many developing countries where the income level for 30 or even 50 per cent of population remains below the poverty line. The solution lies in the transformation of the growth pattern, from ñsustained, inclusive and equitable growthò to ñsustainable, inclusive and equitable growthò.

An important step in this transformation is to incorporate the full value of environment into the measurement of GDP and wealth, or more precisely, the System of National Accounts (SNA), so that the full value of environment will be taken into account in the decision-making of both governments and businesses: governments need to include the full value of environment into their objective functions and/or constraints when setting their budget, macroeconomic policies and development plans; businesses also have to include the full value of environment in their calculus of profits and costs. The System of Environmental-

Economic Accounts (SEEA) adopted by the Statistical Commission of the United Nations (United Nations, 2012) is for this purpose, and a number of countries are working on pilot programmes, but more efforts are needed to mainstream SEEA. For example, a joint exercise by World Bank and DRC (2012) in line with SEEA approach shows that Chinaôs GDP growth would be much lower than the 10 per cent as measured in the current SNA if environmental depletion and degradation were included: it would be at about 5.5 percent.

Another important step is for the governments to set the prices of environmental goods and services to levels reflecting their intrinsic value. Given the natures of many environmental goods and services as public goods and common goods, as well as the existence of high externalities and information asymmetries associated with environmental goods and services, markets alone cannot price them properly. It is up to the governments to use taxes and regulations to get the prices right, so that businesses and consumers will take these prices into their decision-making, alter their behavior and change the unsustainable patterns of production and consumption.

Building effective, inclusive, equitable and environmental-stewarding institutions is equally important, so as to secure both private and public property rights, law and order, markets and state provision of public services and regulation; open to fair competition; uphold contracts; access to education jobs, and other opportunities for all. Many countries are undertaking various institutional reforms towards this direction, but these reforms by definition will involve changing the rules of the game which may have long established and thus encounter tenacious resistance from the vested interests.

With these measures in place to recognize the full value of environment in economic decision-making, set the prices of environmental goods and services as the correct signal for incentivizing businesses and consumers, and build effective, inclusive, equitable and environmental-stewarding institutions for enforcing the rules and regulations; many macro MDG enablers as summarized above can be transformed into macro enablers for SDGs in the post-2015.

For example, people-centered policies, such as those to strengthen human capital will continue to be important for promoting ñsustainable, inclusive and equitable growthò for SDGs.

High level of investment, human capital and technological innovation will still be among the key factors for supporting sustainable growth; however, environmental capital should be added to this list. Investment will be more focused on sustainable development projects, technological innovation will be focused more on green technology, and industrial policy, trade policy and other structural policies will be aligned towards a sustainable economic structure.

Policies to manage broad macroeconomic stability remain important for sustainable growth, but monetary and fiscal policies will take into account not only parameters in economic and social dimensions, but also those in environmental domain.

Employment and productive jobs will remain the key elements for making growth inclusive, with more green jobs but fewer ñdarkò or ñgreyò jobs.

Policies for improving equal opportunity, reducing income inequality, and providing social safety nets for the most vulnerable and universal social protection floors will continue to make growth more equitable, but addressing inequalities in environmental dimension (at both national and international levels), namely, inequality in access to environmental goods and services and in sharing environmental costs, will be included into the policy consideration.

Reducing sustainable development stresses and mitigating risks of conflict simultaneously so as to gradually build a virtuous cycle between peace and sustainable development will continue to be among the most effective policies to restore peace and stability in conflict-affected countries.

With SDGs focusing on integrating economic, social and environmental dimensions, however, at least two more macro policy areas will become more challenging than for MDGs: *prioritization and coordination*.

In the early discussion of ñsustained, inclusive and equitable growthò for achieving MDGs, a number of factors and policies have already been omitted from the already long list, such as urbanization and rural development, remittance, population, immigration, for the purpose of avoiding the risk of ñover-determiningò growth. When coming to ñsustainable, inclusive and equitable growthò for achieving SDGs, this list can go even longer. However, what is relevant from the perspective of national policymakers in a developing country is to identify a few dominant factors which are currently binding the sustainable growth of this country and develop policies to target these factors, rather than tackle many factors all at once. Sustainable growth strategies require prioritizing (Hausmann, Rodrik and Velascoy 2008).

Integrating economic, social and environmental dimensions would require an integrated policy framework for all policy-makings in these three dimensions. In reality, however, no country would pursue setting up a super centralized policy institution for this purpose. Therefore, a practical approach would be to enhance coordination of economic, social and environmental policies. This will still require significant changes in policy setting, with different line ministries and agencies taking extra variables and parameters into their policy objectives and constraints.

International policy coordination and cooperation will also become more challenging in post-2015, not only among nations, but also among the international economic, financial, trade and environmental institutions.

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