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Chapter 8

Common elements for inclusive and sustainable development strategies beyond 2015

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8.1 INTRODUCTION

The real-life development strategies that have dominated the scene in recent decades have often been seen as models to be imitated but have in most cases generated unsatisfactory results. The Washington Consensus, which dominated the policy scene from the 1980s until recently, has led to greater global economic integration but also to slow growth, more instability and greater inequality. The “Chinese model”, in turn, heralded by many as a pragmatic alternative blueprint for developing countries has been recently criticized, including by China’s head of state, for being potentially unstable and not sustainable (both environmentally and socially), for overly relying on exports, and for suffering from under-consumption, over-investment and limited capacity to innovate (Yongdin, 2011; Roubini, 2011). In turn, the Millennium Development Goals (MDGs) agenda introduced a human development-centred development approach, but has been criticized for defining goals and targets too uniformly without considering initial country-specific conditions and for remaining vague about how to achieve those goals (see chapter 2 by Fukuda-Parr). As a result, this approach of “goals without a strategy” ended up emphasizing more increases in social spending and the mobilization of more development assistance rather than promoting the transformative changes needed to achieve a more inclusive and sustainable growth.

In view of these limitations, this chapter proposes a “minimum common denominator” policy to characterize development strategies that focus on ensuring the achievement of a broad set of human development objectives. At the same time, the strategies should recognize differences in starting conditions and address the four intertwined global crises of food insecurity, financial instability, rising income inequality and unsustainable environmental degradation.

The identification of the “minimum common denominator” policy is inspired by the comparison of seven development strategy experiences discussed in chapter 4 by Cornia and Uvalic. The analysis of that chapter concluded that the East Asian Miracle (EAM) strategy of the 1960s-1970s, and Latin America’s Open Economy Redistribution with Growth (OERG) model performed the best on eleven criteria of successful development related to economic growth, social development, environmental protection, food security and democracy. None of these development models has been successful on all counts. In addition, the successes of the EAM model would be more difficult to replicate under greater initial economic openness and more democratic conditions or if required to comply with higher standards of environmental sustainability. What’s more, deeper globalization and international commitments underwritten by most countries within the context of the World Trade Organization (WTO) and other multilateral agreements have limited the national policy space (United Nations, 2010).

The “minimum common denominator” policy draws further inspiration from a few general principles emanating from the development literature that is cognizant of differences in countries’ initial conditions. A first principle draws on Dani Rodrik’s book, *One Economics, Many Recipes* (2007), which argues that while countries may pursue the same broad economic objectives, the policy tools to meet those will need to be tailored to the institutional setting and structural characteristics of each country. A second principle is offered by Robert Wade’s book, *Governing the Market* (1992), which provides suggestions on how to generate a benign interaction between market forces and state action. A third source of inspiration refers to the “search for greater policy space” by ensuring that the multilateral frameworks governing international trade, finance, and environmental protection more fully adhere to the principle of common-but-differentiated responsibilities suggested in United Nations (2010) and chapter 12 of this volume by Girvan and Cortez.

In practice, the “minimum common denominator” policy reflects the experiences of several East Asian and Latin American countries (and

possibly of a few other virtuous countries) over the last decade in an increasingly interconnected and unstable world economy. Finally, the chapter illustrates a few alternative paths fitting the conditions of different developing countries identified on the basis of their size, income per capita, exports structure, weight of agriculture, degree of industrialization, dependence on foreign capital and food imports, and so on.

8.2 THE NEW DEVELOPMENT PARADIGM: SYNERGIES AND TRADE-OFFS

The new “pro-poor, pro-growth, and pro-environment” (pp-pg-pe) development paradigm discussed in these pages should make explicit a broad set of goals consistent with the concept of sustainable development which was defined by the Brundlandt Commission (WCED, 1987) as the process that “meets the needs of the present without compromising the ability of future generations to meet their own needs”. This implies pursuing simultaneously the goals of economic development, social progress, and environmental protection. In this view, social development is perceived as necessary to sustain both economic development and environmental protection. Put in the words of the Brundtland Commission, “[a] world in which poverty is endemic will always be prone to ecological and other catastrophes” and “the distribution of power and influence in society lies at the heart of most environment and development challenges” (WCED, 1987: para. 27 and para. 43). For instance, achievement of food security through policy support to the adoption of green agricultural technologies and the strengthening of the productive capacity of smallholder farming would simultaneously help reduce poverty and hunger, reduce inequality and protect the natural environment. Without such support, small farmers often have been forced to overexploit land causing the degradation of their main productive source and perpetuating rural poverty and inequality.

Over the last three decades, however, this “broad target setting”, focusing on sustainable development goals or the narrower MDGs, was not pursued in the context of a unified development model.¹ Instead, it was expected that alternative development policy approaches, be they those emanating from the Washington Consensus or the “dirigiste” paradigm (such as China’s export-led model) would serve to secure progress in human development in all of its dimensions. In the pp-pg-pe approach there is a need to spell out clearly the targets on all three dimensions and the possible trade-offs

associated with their achievement. The latter will require spelling out the means (in terms of development strategies and policies and resource allocation) to achieve sustainable development. Doing so will require a new approach, as business-as-usual cannot be an option.

Indeed, the four global crises discussed in chapter 1 of this volume are interdependent, thereby exacerbating their impact on the welfare of both present and future generations (Addison and others, 2010). An immediate concern is the solution of the financial crisis which originated in advanced economies but with nefarious impact to many developing countries. However, without fundamental change of the economic growth model, recovery from the crisis would mean that increases in greenhouse gas (GHG) emissions would accelerate again. Moreover, a total priority placed on growth reactivation could delay the search for a more equitable pattern of growth. Likewise, the trend towards rising food prices and growing food insecurity—which is mainly due to the neglect of agriculture over the last three decades—may be exacerbated by an attempt to solve climate problems through mitigation policies that encourage the reallocation of land to biofuel crops, while in the meantime the rise of temperatures and sea level will affect agricultural yields. Similarly, the inability (perhaps with the recent exception of Latin America and some sub-Saharan countries) to shift to a more equitable pattern of growth would frustrate progress in achieving greater food security even in the presence of rising agricultural output.

The close interaction between the four crises poses two methodological challenges for the new development paradigm advocated in this volume. First, the identification of policies which—while addressing directly each of the four crises—do not retard the solution of the other three and neither deter making progress in achieving poverty reduction and other human development targets. The second challenge concerns the complexity of identifying policy priorities when addressing the four interdependent crises. The complexity does not only derive from their interdependence but also from the vastly different time horizons over which the impact of those policies will be felt. For instance, efforts at dealing with the financial instability and inequality may possibly yield some visible results over a three to five year period, but making up for decades of neglect of agriculture and food systems will require a much longer time horizon, while actions at stabilizing the global climate may take as long as 30 to 50 years. This means that—whenever it will not be possible to find win-win policies leading to Pareto improvements—the choice between alternative allocations of public

funds among the four policy areas will be influenced by the choice of the social discount rate used to actualize their costs and benefits at the present time. If such rate is high (as it tends to be in poorer societies), climate change measures, and perhaps policies to fight the neglect of agriculture and inequality will take second seat. Multilateral action may then be the only solution, as discussed in chapter 5 by Opschoor.

8.3 EXTENT AND MODALITIES OF INTEGRATION IN THE WORLD ECONOMY

How much more integrated into the world economy should developing countries become in the post-2015 era? Should countries aim to lift growth mainly by promoting exports and specializing in narrow product niches, as the existing discourse on globalization seems to suggest? Should they further integrate into international financial markets to dynamize domestic capital accumulation? Or, should they assign a greater role to a growth pattern led by domestic consumption, domestic investments and nationally supported R&D? In short, should all countries seek further production specialization and global integration, or should they try to rely on a more balanced pattern of growth?

This raises the question whether the benefits of economies of scale linked to specialization and those of reliance on technology transfers through imports, foreign direct investment, and integration in global value chains outweigh the associated costs in terms of exposure to volatility in global commodity and financial markets and technological dependence.

The answer will obviously depend on the size of the economy (small economies need to be more specialized than larger ones), the establishment of future of “global safety nets” compensating for global contagion (in this respect, the massive increases in IMF resources in 2009 and 2012 were moves in the right direction), the need to find a Hla Myint-type “vent for surplus” for excess output that cannot be absorbed by the domestic market, and other considerations, including the ability of a country to adopt an “open economy industrial policy” (see below). It is important to underscore that—while there are in many cases “gains from trade”—in a closely interdependent world with no global safety nets and frequent contagion generated by an unregulated financial sector, recessions spread more easily than in a world system which is still open but with “speed bumps” and controls. Greater global specialization (and world trade) may also cause further increases in the volume of carbon emissions and other environmental footprints.

Continued dependence on international finance is, in contrast, a trend which should be clearly controlled or at least moderated by means of domestic measures and through the adoption of international regulations (including a tax on international financial transactions), while at the same time promoting measures, as those introduced in East Asia since the 1960s, to stimulate domestic private and public savings (Wade, 1992). Finally, and in contrast to the other points just made, it is desirable that the international technology transfer should be continued, and that, to this end, the international rules about patents should be softened while leaving a “fair remuneration” for the inventors (Chang, 2008) so as not to hamper the adoption of new technologies, including “green technologies”, by the majority of developing countries which (with the exception, in some industries, of China, India, Taiwan Province of China, the Republic of Korea and a few others) do not have the capacity of generating modern technologies endogenously and in a reasonable amount of time.

Interestingly, China, the country which is generally seen as the one which benefitted most from free trade, FDI inflows and global integration, is considering rebalancing growth towards greater reliance on the domestic market (Yongdin, 2011). The arguments normally given to justify this policy shift include: the desire to avoid an excessive dependence on export markets (Akyüz, 2011), FDI and imported technology and the dominance of foreign ownership in the export sector (Fisher, 2010); the attendant low national expenditure on R&D and low domestic consumption leading to rising income inequality; limited public investments in education, medical care and social security; an excessive trade and capital account surplus, as well as a too-high investment rate; and rising pollution and low energy efficiency. The new proposed strategy would focus more than before on the domestic market and should reverse the above unfavourable trends. In particular it would raise the share of domestic consumption and R&D expenditure on GDP; reduce the investment share and the income gap between classes and urban and rural areas, and between coastal areas and the hinterland, by changing both the primary income distribution (by letting wages rise and legislating increases in minimum wages) and by redistributing via government transfers; increase the share of the service sector; and make the economy less carbon-and energy intensive. Given the size of China, such a shift would affect world trade, GHG emissions, and global macroeconomic balances (Yongdin, 2011). Other developing countries would benefit from a rebalancing of China’s economic growth model through a stronger growth of its domestic demand, a relative decline in its volume of exports and

shift in export composition towards high-tech products. Such shift would provide the developing countries with new opportunities for expanding non-primary exports to China and elsewhere and for receiving greater inflows of FDI.

8.4 RAISING OUTPUT IN A SOCIALLY AND ENVIRONMENTALLY SUSTAINABLE WAY

There is now considerable evidence that shows that, in low-income economies, progress in reducing extreme poverty depends on the growth of average incomes—which are closely related to GDP per capita—while in middle-income countries with high income inequality, poverty reduction is more sensitive to income redistribution than average economic growth (Kakwani, Khander, and Song, 2004). Progress towards other MDGs is equally dependent on both growth and greater income equality. Indeed, a broad-based increase in incomes makes it far easier to achieve household-level improvements in areas such as hygiene, nutrition, health and education and, second, because generating sustainable budget resources for governments may be as important as policies directly targeted at the MDGs. Hence, a post-2015 MDG strategy will generally need to rely on a pro-poor growth as a fundamental driver.

At the same time, the challenges relating to pressures on natural resources and human-activity induced climate change imply that a mere pro-poor growth model is not a viable option over the long run. Growth will need to be pro-environment as well. A “green growth” approach would seek synergies between economic, social and environmental objectives. This implies a major departure from conventional economic models which see environmental protection as competing with economic growth and pollution and environmental degradation as negative externalities emanating from market failures correctable by internalizing environmental costs.

The pp-pg-pe approach thus stresses the long-term benefits and synergies based on an alternative welfare concept that weighs social and environmental dimensions at least as much as mere economic gains. Realizing such benefits and synergies will be most challenging, however, as it will require a high degree of policy coherence across a wide spectrum of policies and, necessarily, a long-term perspective. High start-up costs and uncertain returns to investments in new technologies and infrastructure to underpin green growth will provide short-term challenges and trade-offs.

Hereafter we discuss some of the main national policies needed to reach this objective, while noting that the nature of an international enabling environment to support efforts at achieving a pp-pg-pe pattern of development in the post-2015 era is discussed in chapter 12 by Girvan and Cortez.

Accumulating capital with less external indebtedness and higher domestic savings

The liberalization of the capital account has been, and still is, presented as a golden opportunity to access a global pool of savings and speed up capital accumulation and job creation. However, these promises have only seldom materialized. The evidence shows that that open economies with larger domestic banking systems and long-term bond markets and higher domestic savings and investment rates tend to have smaller portfolio inflows relative to the size of their economy than those with smaller domestic banking systems (Griffith-Jones and Ocampo, 2011). In contrast, countries heavily relying on external financing have often ended up in “financial traps” characterized by currency appreciation and instability, high-risk premia, exposure to sudden stops in capital inflows, sensitivity of domestic borrowing costs to exchange rate fluctuations and risk premia on foreign loans, a need to accumulate large reserves to ensure against capital flow reversals, and slackening of domestic savings (Damill and Frenkel, 2012).

In the 2000s, the recourse to foreign savings has become more selective—e.g. for financing investments in the traded sector—while several countries with large public foreign debt started to reduce it (Cornia, 2012: table 3). As a result, external debt burdens fell markedly. Spreads on international loans have also fallen. The decline in indebtedness improved the net foreign asset position of economies in Latin America and several other regions (figure 8.1), though it worsened in several countries of South East Asia and Eastern Europe and the Former Soviet Union (EE-FSU).

Policies supporting a “pp-pg-pe” development strategy should aim to ensure to break out of the dangerous circle of insufficient domestic savings and dependence on volatile foreign savings and seek ways to structurally enhance domestic resource mobilization. This can be done by the strengthening of indigenous financial institutions, which can behave counter-cyclically as observed in the case of the Brazilian National Development Bank, BNDES, which during the 2009 crisis expanded credit to compensate the “flight to safety” of foreign capital. Greater emphasis

on the mobilization of domestic financing requires providing domestic financial institutions with infrastructural support, tax incentives and public guarantees for loans, as well as relying on existing postal office networks, which have grown into a major financial institutions in several developed and developing countries. Development of local bond markets for long-term investment finance will be equally important, as argued, for instance, by Ocampo and Vos (2008). Yet, the evidence shows that to increase the domestic savings rate—especially by low-income groups—it is necessary to ensure the credibility of macroeconomic policymaking and banking stability. It shows also that domestic savings can be achieved also by harnessing the mandatory savings of pension funds (as done in the past by Singapore and Malaysia), tightening consumption credit and, obviously, ensuring there are sufficient incentives to invest. Further, public

Figure 8.1

Net foreign asset position in Latin America and the Caribbean (LAC) and Eastern Europe and Former Soviet Union (EE-FSU), 2000-2010

Source: Cornia and Martorano (2012) based on World Development Indicators.

Note: LAC countries include: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela; the EE-FSU countries include: Armenia, Azerbaijan, Belarus, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Macedonia, Moldova, Poland, Romania, Russian Federation, Slovak Rep., Slovenia, Tajikistan,

savings can be raised to finance infrastructure development by increasing tax burdens. There are many warnings of the risk of public investment crowding out private investment, but skillfully targeted public spending on infrastructure, technological innovation, energy, health and education can stimulate growth and crowd in private investors by raising opportunities for high value-added investments, creating markets and lowering costs.

Investing in human capital

In all types of economies, both developing and developed, investing in human capital helps achieve the equity, environmental and growth objectives mentioned in the introduction of this chapter and which should be included in the post-2015 targets of the new development strategies discussed in this volume. A massive amount of theoretical and empirical literature on endogenous growth, the neoclassical human capital model, and the empirical literature on the determinants of well-being, social cohesion, civic attitudes and democracy shows there is hardly any money better spent than that on human capital, that is, on education, health and nutrition. The overall impact on long-term growth is well demonstrated in different types of economies (both traditional and modern), though issues concerning the composition of such expenditure, its (public versus private) financing, corruption and the absence of complementary inputs (e.g. infrastructure, and physical capital) may reduce its impact on efficiency and equity, and thus require major efforts at solving these allocative efficiency and political economy problems.

In addition to higher labour productivity growth, efforts at human capital formation have been shown to generate important synergies in achieving multiple MDG targets, including in reducing child and maternal mortality, fighting hunger and improving food security, and reducing poverty. In most contexts, human capital investments tend to be conducive to a reduction of income inequality. For instance, recent research confirms that an important driver of the decline in inequality observed in much of Latin America during the 2000s was the steady increase in secondary completion rates by the children of low-income household during the preceding two decades (Cruces and others, 2011). Ranis and Stewart (2000) have further described the dynamic links between education, human development and growth. Furthermore, improved education will be essential for technological innovation and diffusion needed for sustainable agriculture and moving towards low-carbon production and consumption processes (United Nations, 2011).

However, such gains are not automatic and other conditions need to be satisfied at the same time. First, productivity gains from human capital investment tend to come with important time lags. Hence it is important not only to sustain investments over prolonged periods of time but also to finance them in ways avoiding major macroeconomic trade-offs in the short run, as discussed for instance in Sanchez and others (2010) and Sanchez and Vos (2012). Such trade-offs may emerge, for instance, if involving substantial increases in public spending in non-tradables which may induce real exchange rate appreciation, especially when mainly financed by increased foreign aid and/or borrowing. Attempts at financing human capital principally through out-of-pocket household spending (e.g. through raising tuition fees and out-of-pocket health costs), as attempted in the 1990s by Washington Consensus-inspired fiscal reforms, may adversely affect human capital investment by low-income households (see e.g. Bentaouet-Kattan and Burnett, 2004 and Birdsall and others, 2006 for the case of primary school tuition fees). Second, economies will need to adjust to provide employment opportunities for more skilled workers. Lacking such adjustment and hence economic opportunities for new workers, new sources of inequality and social tension could emerge. The associated labour market mismatches and rising youth unemployment have been among the factors giving rise to the Arab Awakening at the start of the second decade of the twenty-first century, but remain critical economic and social problems to be addressed by the new regimes established in the political transition (OECD, 2011; Sanchez and Vos, 2012). Third, higher incomes associated with higher education levels may induce more energy-intensive consumption habits and shift food demand to protein-rich items, putting greater pressure on tight food markets and potentially inducing intensification of environmentally unfriendly agricultural production and land use.

The new pp-pg-pe development paradigm thus emphasizes four points in this area. First, human capital spending has to be sustained over prolonged periods of time to yield productivity gains over time. It also needs to be sustained even after once seemingly unattainable objectives (e.g. universal primary education and quasi universal immunization coverage and, in some regions, secondary enrolment) have been achieved, if sustainable growth and well-being and a steady evolution of the structure of the economy are to be achieved, and if environmental innovation is to be promoted. Second, while there are different models of delivery and financing of human capital services, it is important that this function not be left entirely in the hand

of the market, as this would inevitably increase the differential in coverage between the haves and the have-nots. Third, to avoid irreversible and permanent costs, public expenditure on education, health and a minimum of social protection has to be given priority in budgetary allocations during periods of crisis. This key change is required as the financing of these activities generally suffered during the crises and fiscal adjustment of the 1980s (Andersen, Stewart and Jaramillo, 1987) and, if to a lesser degree, during the recent food-fuel-financial crises. Indeed, Ortiz and others (2011) argue that while the adjustment policies adopted in 2009 with the blessing of the IMF by most developing countries made an explicit effort to protect social expenditure, premature public expenditure cuts since 2010 have led to cuts in health, education and basic food subsidies or to increases in VAT on basic goods consumed by the poor. As a result, cuts in public expenditure (including essential social expenditure) were expected in 70 developing countries in 2011 and in 91 in 2012. Fourth, coherence with other areas, including macroeconomic, labour market, technology, environmental, industrial and agricultural policies, is critical in order to assure investments in human capital do not lead to undesired macroeconomic distortions in the short run or lead to labour market mismatches, new social inequities or environmentally unsustainable consumption patterns in the long run.

Open-economy industrial policy

All the well-known experiences of successful economic development have involved a sustained burst of widespread income growth spread through dynamic structural change throughout the economy characterized by diversification and transformative shifts from low to high productivity sectors (Ocampo and Vos, 2008). Such pathways typically did not emerge spontaneously, but rather were pushed through strong policies stimulating new modern economic activity. Creating a virtuous circle of rising productivity, technological upgrading, dynamic economic diversification, and social progress in low-income countries typically would require a helping hand through combinations of public investment in infrastructure, modern energy supply and human capital and a set of policy incentives broadly labelled as “industrial policy”, which is to be understood not merely as promoting manufacturing industries, but of modern production and service activities more in general.

Historically, such strategies involved what might be called “*closed-economy industrial policy*”, as a key focus was on stimulating the development of new

production activity by protecting them from foreign competition through import tariffs and duties, subsidies as well through public investment in research and infrastructure for technological upgrading and aid in the creation of economies of scale. This approach seems to be foreclosed to most countries because of their participation in the WTO and/or regional and bilateral trade agreements they have signed. Despite this reduction in policy space, recent experiences of Australia, Brazil, Chile, China, Finland, Ireland, Malaysia, the Republic of Korea, Singapore, and Vietnam have shown that it is possible to pursue an “*open-economy industrial policy*” and diversify output and exports and raise the technology and knowledge content of the production process through proactive macroeconomic and industrial policies, both economy-wide and sector specific, or, in a less evident way, through the intelligent adoption of non-tariff barriers. Yet, such approaches have been adopted by only few lower middle-income developing countries, with the result that the structure of output and exports of many developing countries stagnated due to the dominance of the export-oriented growth model based on trade and capital account liberalization adopted in the 1980s and 1990s, and of the reduction of national economic policy space entailed by IMF policy conditionality, WTO trade rules, costly access to technology implied by intellectual property right rules (TRIPS), and/or unrestricted capital mobility.

A pp-pg-pe strategy will require active industrial policies to provide incentives for dynamic structural change that will not only lift living standards but do so in a sustainable way. In doing so, lessons can be learned from the mentioned recent successful experiences. A first powerful way to diversify output is to ensure a stable and competitive exchange rate (see section 8.5 below) which appears to have a far greater protective effects on the import-competing domestic manufacturing sector than tariff rates of 30 per cent or so (Helleiner, 2011). Small developing economies, in contrast, may opt to rely on selective entry of foreign direct investment (FDI) as a vehicle of industrial policy, the FDI creates backward and forward linkages within the national economy. Whether FDI leads to a “crowding-in” or “crowding-out” of domestic investments remains an open question, however. Ideally, FDI should be attracted to new economic activities to avoid a rise in unemployment that would result from FDI entering sectors with small scale and weak domestic firms.

A third approach, such as that followed in Chile and other countries, is of microeconomic nature. Chile diversified its export basket towards resource-based products (wood, fresh and processed fruits, wine, etc.) by generating

high levels of public knowledge, R&D and infrastructure by means of a strong and long-term alliance between the public and private sectors.

Sustainable agricultural development policies.

The food price spikes during 2007-8 and 2010-12 manifested once more inadequate progress achieved in the field of food security and agricultural growth. Several factors contributed to the slowdown in growth of food production relative to demand causing recurrent food price spikes and nutritional crises with every supply shock, as discussed in chapter 6 by Von Braun. Projections by the FAO suggest that world food production will need to rise by at least 70 per cent from present levels by 2050 in order to feed the growing and increasingly urbanized world population. This presents a huge challenge, the more so because trying to step up agricultural productivity with existing modern technologies would overstep environmental limits with potentially devastating consequences for future food supplies. At present, agriculture is the main emitter of nitrous oxides and methane (both with high global warming potential), contributing about 15 per cent of global greenhouse gas emissions in 2005, more than the transportation sector (Ackerman, Kozul-Wright and Vos, 2012: p. 89). In addition, agriculture is a major contributor to water pollution, deforestation, and land degradation. Such environmental constraints, including the effects of climate change, are already being felt on food security and livelihoods, especially among the poor. Many of the poor live in rural agricultural areas where climate change induces more frequent and severe droughts and floods. Nelson and others (2009) estimate that, by 2050, global rice production may have fallen by 12-13 per cent and global wheat production by 23-27 per cent compared with a scenario without climate change. Taking into account the impact on all crops and livestock, calorie availability in 2050 would not only be lower than in a scenario without climate change, it would actually decline.

However, these challenges also present great opportunities for successful pp-pg-pe strategies. First, strongly increasing agricultural productivity has been a common starting point of strategies of successful dynamic structural transformation. Like other East Asian fast-growing economies, China's growth acceleration began in the late 1970s with institutional reforms in agriculture that were key to a sharp rise in agricultural productivity, and to freeing labour and savings for industrial development (see e.g. Ocampo and Vos, 2008: chapter V). In more general terms, it has also been found that, in low

and lower-middle income countries, agricultural growth reduces also urban poverty, as a rise in agricultural wages and incomes raises the reservation wage of unskilled workers in cities. Second, many of the world's poor continue to live in rural areas and directly or indirectly depend on agriculture for their livelihoods. Helping smallholder farmers and their dependents increase productivity would have immediate impacts on reducing poverty and hunger. Third, agriculture is also a sector with large and relatively inexpensive potential for climate change mitigation. Enkvist and others (2007) estimate that by 2030, greenhouse gas emissions from agriculture could be more than halved from business-as-usual levels through a combination of measures that would cost less than \$10 per tonne of CO₂ equivalent abated; many measures would have negative net costs because of important productivity gains. Low-cost measures include improving soil quality (e.g., by restoring degraded lands) and better management of cropland and grazing lands (e.g. by reducing chemical fertilizer use, reducing tillage, and eliminating burning of crop residues in the field) (United Nations, 2011: chapter III).

Taking advantage of these opportunities will require a radically different approach from the kind of agricultural policies implemented over the past fifty years. In large parts of the world, food systems were shaped to a considerable extent by the so-called green revolution of the 1960s and 1970s, which boosted agricultural yields as much through intensive use of irrigation water and environmentally harmful chemical fertilizers and pesticides, as through the introduction of new seed varieties. Lack of investment in rural infrastructure and education and little to no access to the new technologies, credits and land, implied that many of the world's poor farmers did not gain from the first green revolution, perpetuating poverty, hunger and food insecurity, especially in Africa. In addition, the approach of "getting the prices right" advocated by the World Bank in the 1980s seldom provided adequate incentives and subsidies to agriculture (with the obvious exceptions of China and Vietnam), while macroeconomic policy has often generated an anti-agricultural bias. Fixed exchange-rate pegs and deregulation of capital inflows led during parts of the 1990s to real exchange rate appreciations, discouraging agricultural exports and production. Greater exchange rate volatility under more flexible regimes has increased economic uncertainty, including to farm production. Financial liberalization measures in many contexts have worsened access to credit for the small-scale agricultural production units, including because of the removal of directed credit allocations to these sectors.

A new and truly green revolution will be needed in agriculture worldwide so as to reach food security that is also environmentally sustainable. An extensive menu of already available green technologies and sustainable practices in agriculture already exist and have been successfully adopted with large productivity gains in developing country contexts (United Nations, 2011: chapter III). The main challenge is to change incentive structures and investment patterns to encourage their widespread use. In developing countries, a key focus for most agricultural production should be on promoting and developing sustainable farming among smallholders, whose gains in productivity are likely to be largest, reducing rural poverty. Doing so will require a broad range of policy support measures. These need to be tailored to country-specific contexts, but—as distinct from the “single technology package” approach of the first green revolution—the minimum common denominator of the second one would be a comprehensive approach.

Needed would be a broader approach to agricultural development policies, focusing on access to land, extension services, improved inputs, credits and rural infrastructure so as to secure a greater and more predictable marketable surplus and income to farmers and inputs for agro-industrial development. Such measures would need to be complemented with support mechanisms providing farmers with access to technologies for sustainable agricultural production, including through support to producer associations that can help take advantage of economies of scale and induce dynamic local innovation processes. Water conservation and more sustainable irrigation methods, soil protection and biodiversity enhancement all would need to be part of a broader strategy with public sector support but with important potential for income gains to individual farmers, enhancing off-farm rural employment and sustainable food security. Crop and weather insurance mechanisms, which have recently been introduced in developing countries to provide income protection to farmers, have been analysed and found to be more effective when embedded in a broader agricultural development strategy (Vos and Kozul-Wright, 2010: chapter III; Linnerooth-Bayer and Mechler, 2007). However, well-targeted consumption (or income) subsidies or other mechanisms may need to be kept in place to protect the nutrition of children and low-income families from sudden variations in the price of food.

Energy and environmental policies for low-carbon growth

As cleaner technologies and diversification will be a critical part of establishing a new low-emissions growth path, a process of innovation and learn-

ing has to be ignited alongside efforts to raise the pace of capital formation. Given the scope of the challenge, this process will have to involve traditional sectors such as agriculture and forestry (see previous section), as well as more advanced sectors, especially modern energy, linked to mitigation challenges.

Energy technologies have been greatly shaping society and the environment for the past two centuries. The benefits of electrification are clear. For poor households in developing countries, having household lighting has been estimated to add between \$5 and \$16 per month in income gains. The added benefits of access to electricity in general would be in the order of \$20-\$30 per household per month through enhanced entertainment, time savings, education and home productivity (World Bank, 2008). These benefits outweigh by far the \$2-\$5 per month that poor households typically pay for the cost of electricity. Energy efficiencies of kerosene, candles and batteries for lighting are very low. As a result, lighting services with kerosene cost as much as \$3 per kilowatt-hour (kWh), which is higher than the cost of lighting with solar electricity, at about \$2.2 per kWh in poor countries. In low-income countries, diesel generators and micro-utilities typically provide lighting at a cost of \$0.5-\$1.5 per kWh, compared with centralized traditional utilities which often provide lighting at an effective cost of less than \$0.3 per kWh. However, for traditional utilities, providing services to poor households becomes economically interesting only at demand levels of higher than 25 kWh per month, whereas poor households already derive great benefits per unit of cost in the range of 1 to 4 kWh per month (United Nations, 2011).

The economic benefits of expanding modern energy supply are large and so are the potential gains for poverty reduction and human development. About 40 per cent of humanity, or 2.7 billion people, continues to rely on traditional biomass, such as wood, dung and charcoal. Air pollution from inefficient stoves leads to an estimated 1.5 million premature deaths per year, more than from malaria, tuberculosis or HIV. About one fifth of humanity or 1.4 billion people, continues to live without access to electricity, mainly in South Asia and sub-Saharan Africa (IEA and UNIDO, 2010). Many more, especially in urban areas, have access but cannot afford to make full use of it.

The key problem is that modern energy systems are by and large locked into fossil-fuel based technologies, which account for 85 per cent of global energy supply and are the main cause of anthropogenic global warming. In pursuing pp-pg-pe development strategies, therefore, developing and emerging economies face a two-fold energy challenge: meeting the needs of

billions of people who still lack access to basic, modern energy services while simultaneously participating in a global transition to clean, low-carbon energy systems. Both aspects of this challenge demand urgent attention. The first because access to reliable, affordable and socially acceptable energy services is a pre-requisite to alleviating extreme poverty and meeting other societal development goals. The second because greenhouse gas emissions from developing countries are growing rapidly and are contributing to climate change and poor air quality, that put the health and prosperity of people around the world—but especially people in poor countries—at grave risk.

Low-income countries with still-low coverage of modern energy supply may seize opportunities by engaging in “technological leapfrogging” (e.g. Gallagher, 2006) and avoid the resource-intensive pattern of economic and energy development by “leapfrogging” to the most advanced clean technologies available, rather than by following the path of conventional energy development travelled by industrialized countries. The assumption is that if the advanced, cleaner technologies exist, they can be transferred to, and be widely deployed within, developing countries. However, leapfrogging to such new energy technologies, while it has the potential to yield important savings over the long run, faces significant obstacles. These might be on the supply side, for instance, owing to the presence of barriers to accessing the required technology, whether because of obstacles to importing the technology from abroad, as is the case for most developing countries or because of a lack of the technological expertise needed to link technology to local conditions (United Nations, 2009; 2011). Obstacles may also exist on the demand side, if a limited market size prevents economies of scale and a rapid running down of costs to make new technologies locally competitive within an acceptable timeframe. Thus, there is a role for governments, including at a local level, to build markets for new technologies, for example, by providing low-cost loans to households and businesses, providing information about new technologies, etc.

Even as the modern energy supply is already locked into fossil-fuel technologies, the fact that the major emerging economies have large markets for energy technologies provides an opportunity to develop local technology capacities and upgrade industrial capabilities, as is the case for China. Oil-rich countries with high insolation would also have a number of opportunities to diversify their industrial base and leverage the existing oil infrastructure (for example, through manufacturing and deployment of solar reactors in desert areas near existing oil facilities, with the reactors

transforming CO₂ and water into gasoline). The potential size of the energy market in developing countries along with the possibility of making improvements to already installed capacity serves as an indication of how important investment opportunities could be. However, as the initial costs and risks are likely to deter private investors, the public sector would be left with a leading role, at least in the early stages of expansion: a massive public investment push, coupled in the short term with appropriate subsidies to offset high initial prices and targeted at the most promising technology options (e.g. solar and wind), would help trigger an early cost write down.

Strategic deployment of new technologies (either for leapfrogging or energy transformations) will require combinations of incentives, regulatory measures and direct public investment. The example of the ethanol industry in Brazil demonstrates how critical government support can be, particularly during the early phase of development and deployment of a new technology and how it may need to be sustained until it has taken firm root in the marketplace (Ackerman, Kozul-Wright and Vos, 2012).²

Public investments will be needed to provide the basic infrastructure and, in most settings, also facilitate research and development for local deployment of technologies. Feed-in tariffs, which mandate a specific (premium) price to be paid for electricity supplied through renewables, such as wind and solar energy, have been shown to be effective means to stimulate supply of cleaner energy. Investment tax credits to firms that bring a new technology to market can lower the upfront investment costs of producing a new type of equipment, and can be tied either to costs or to the production level. These policies work to increase the supply of a new technology on the market.

To increase demand for a new technology, tax credits or rebates can be granted to purchasers as well as producers, reducing the cost differences between old and new technologies and making the lower-emitting or more efficient new products relatively more attractive. Also, vast subsidies on fossil-fuel consumption maintained by many developing countries could be gradually redeployed for subsidizing renewable energy use and purchases of high-efficiency appliances. Renewable energy market development further will need to be supported through regulatory measures that help reduce investment risk associated with the new technologies (e.g. through loan guarantees) and setting energy efficiency standards and targets for increasing renewable energy supply.

Refocusing energy and industrial policies along these lines is a necessity in order to fight climate change, but may also be expected to provide

important payoffs in terms of higher growth, job creation and poverty reduction (World Watch Institute, 2008). At the same time, however, enacting these policies will pose important macroeconomic challenges in the short to medium run. Finance-constrained low-income countries may be in need of significant additional foreign assistance to make the necessary investments in expanding modern energy supply of low-carbon intensity, including through the Green Climate Fund being established under the UNFCCC. For all developing countries, the challenge will be vast given the required investment costs and initial fiscal burden of providing the necessary incentives. Hence, supportive macroeconomic policies will be critical for pp-pg-pe strategies.

8.5 MACROECONOMIC AND FINANCIAL POLICIES FOR PRO-POOR AND GREEN GROWTH

A commonly held view by mainstream economists has been that macroeconomic policy should be neutral—that it should narrowly focus on maintaining macroeconomic stability and not be used to directly promote longer-term objectives in the field of growth or distribution. In this narrow view of macroeconomic policymaking, growth objectives would be best served by focusing on low inflation and balanced budgets. However, there is overwhelming evidence that erroneous macro policies can severely affect growth and distribution (and through them perhaps the environment), as argued by the debates on “stabilization overkill”, the regressive nature of monetarist macro adjustment, the deflationary bias of macro policies during normal times, and macroeconomic populism (see the literature reviewed in Cornia, 2006). It shows also that pro-active macroeconomic policies can contribute to equitable long-term growth and environmental protection (e.g. through public spending on human capital and clean technologies).

More recently, there has been a shift towards a broader approach of macroeconomic policymaking, establishing “new macroeconomic fundamentals” that better fit in the globalized environment in which developing economies operate today and which explicitly aim to generate more favourable effects on growth, stability and reducing income inequality. Indeed, the new world within which macroeconomic decisions have to be taken has profoundly changed. Several macroeconomic problems of the past (such as a high external debt or inflation that led in the past to the adoption of strict and contractionary fiscal and monetary policies) have been corrected in many places. However, during the 2000s the main sources

of macro shocks and imbalances in developing countries were not due to overly expansionary domestic fiscal and monetary policies, but originated in volatile international financial and commodity markets with many of the shocks originating in developed countries and easily spread to developing countries as a result of inadequate macro-prudential bank regulation in overly deregulated but internationally integrated financial systems, the financialization of commodity markets, surging global macroeconomic imbalances, and fiscal austerity responses to sovereign debt crises. At the same time, the unprecedented development of international financial markets has drastically narrowed the space for domestic policymaking.

These new policies were broadly followed during the last decade in some Latin American, sub-Saharan African and other countries, but not in many countries of the transition economies in Eastern Europe and the former Soviet Union. The elements of this new macro paradigm are difficult to pinpoint *ex ante*, as they depend on a long list of local conditions. Yet, some broad principles apply fairly generally, as the new macroeconomic fundamentals aim simultaneously at (a) preventing external and internal crises, (b) maintaining a reasonable macroeconomic balance, and (c) aiming explicitly at long-term (green) growth of GDP and employment, especially in the traded-good sector, and at reducing income inequality. Some of the key features are discussed below.

Capital account regulation

Some modest results were recorded in recent time in this field, as a large number of emerging economies (Brazil, Chile, Colombia, India, Indonesia, Malaysia, Republic of Korea, Singapore, Taiwan Province of China, and Thailand) imposed capital controls to mitigate the inflow of volatile short-term capital and stem real exchange rate instability. Central banks can limit the foreign exchange exposure of domestic banks, forbid them to borrow internationally to extend loans to the non-tradable sector and introduce temporary or permanent administrative controls on inflows and outflows, and limit foreign ownership in sectors such as real estate. Key issues in this regard are the duration and efficacy of the controls. The IMF (2011) now fully supports the introduction of temporary capital account regulations during crisis periods, but countries may rather wish to have such measures in place to mitigate surges of capital inflows also during booms or seemingly normal times, thereby enhancing their domestic policy space by adding a macroeconomic policy instrument to be adjusted in line with changing economic conditions. However, capital account regulation is not a substi-

tute for sound macroeconomic policies. At best, it can mitigate capital flow volatility, but not eliminate it completely (Helleiner, 1997). Hence, it is best used as part of a broader framework of counter-cyclical macroeconomic policies and macro-prudential financial regulation.

An exchange rate regime which reduces currency crises and promotes growth

A “pp-pg-pe” paradigm requires that open economies opt for a managed float, combining exchange rate flexibility with discretionary interventions by the central bank in the foreign currency market. Such approach has recently emerged as the preferred choice of a growing number of countries. Empirical research shows that a competitive exchange rate has been critical to kick-start growth and to improve long-term economic performance (Rodrik, 2005). A managed float regime (and its supporting measures, see below) tends to reduce the risk of currency crises, and at the same time provide adequate incentives to the expansion of the traded goods sector which in many developing country contexts is an important source of employment for low-income workers. A competitive exchange rate would thus generate favourable effects in terms of reducing income inequality and increasing exports, jobs and growth.

To support their exchange rates, some countries introduced capital controls and allowed their central banks to intervene in the currency markets (see above). The management of this type of exchange rate regime is not simple and requires the adoption of other supportive measures such counter-cyclical fiscal and monetary policies and adequate accumulation of international reserves to reduce the risk of default on public and private debts and to strengthen the central banks’ ability to intervene in the currency market to prevent an overshooting or collapse of the exchange rate.

Trade policy and the long-term equilibrium or surplus of the current account balance

The “pp-pg-pe” paradigm would further need to be accommodated to the multilateral trading regime. The latter has limited domestic policy space for conducting industrial policies, thus allowing for greater, transitory flexibility for low and middle-income countries will be critical for those countries to pursue strategies of economic diversification. This in turn is important to create conditions for more resilient economic growth, more

dynamic employment generation and for the development of low-carbon energy markets, as discussed above.³ Such an approach is not inconsistent with a further drive towards trade liberalization, but one which is more gradual and embedded in a broader framework of development, that aims to avoid a collapse of the import competing sectors (as happened in many countries that fast-tracked trade liberalization during the 1990s) and actively promotes export diversification, quickly removes anti-export sector biases and promotes regional trade integration.

Countercyclical fiscal policy, tax reform, safety nets, and sustainable debt management

Contrary to the debt-led approach of the past, the “pp-pg-pe” requires a decline in structural budget deficit, as well as surpluses in “fat years” following the adoption of fiscal rules, fiscal responsibility laws or discretionary decisions aiming at correcting the pro-deficit bias of the past. Obviously, such policy allows for short-term increases in fiscal deficits during crises. This new stance contrasts with the past traditional position of the IMF which demanded crisis-affected countries to quickly reduce the deficit, with yearly cuts of three per cent to four per cent of GDP which cause triggered large falls in aggregate demand, output, revenue and employment, and a rise in inequality.

The new policy stance can be facilitated where possible by the introduction of “stabilization funds” which set aside resources during periods of high demand and prices of the exported commodities and release them in crisis years, and the adoption of “fiscal contingency rules” which allow for the increase of public expenditure and permit a widening of the deficit in case of unanticipated shocks. This option will be of particular importance to countries with important natural resource endowments, but vulnerable to commodity price shocks.

This provides credibility to an expansionary fiscal stance in countries where automatic stabilizers are weak and discretionary anti-cyclical policies are looked upon with suspicion by the markets. Symmetrically, the deficits need then to be cut gradually. Adam and Bevan (2001) suggest that deficit reductions of up to 1.5 per cent of GDP per year help re-establish fiscal balance with a minimal impact on growth, but larger reductions can hurt growth.

A “pp-pg-pe” fiscal policy needs also to be supported—both in normal times and during fiscal adjustments—by income transfer programmes

targeted at the poor, as in Mexico's *Oportunidades* and India's National Rural Employment Guarantee Scheme, which have come to play the role of "automatic stabilizers" for the many who are not eligible for unemployment insurance.

A further key element of a "pp-pg-pe" fiscal policy is a rise in tax-to-GDP ratios to levels permitting an adequate financing of public goods, some redistribution and the preservation of macroeconomic stability (Cornia, Gomez-Sabaini and Martorano, 2011). Tax ratios have risen in many developing countries, especially those in Latin America (figure 8.2), with much of the additional revenue coming from personal and corporate income taxes, pragmatic presumptive taxation, financial transaction taxes, consumption taxes on luxury items and reduction of regressive excises.

Figure 8.2

Average tax-to-GDP ratio in the main developing regions, 1990-2007

Sources: Cornia, Gomez-Sabaini and Martorano (2011).

Furthermore, the pp-pg-pe strategy would need to be supported by reducing regressive biases in tax and public expenditure policies. The new development model proposed in this volume will have to correct the often

limited distributiveness of public expenditure and, especially, taxation. While tax ratios may have increased recently, in most countries the “actual tax revenue” remains substantially below the “potential tax revenue”, that is collectible revenue on the basis of an international norm (Cornia, Gomez-Sabaini and Martorano, 2011). There is a need therefore to propose a new “fiscal pact” aiming at raising the revenue/GDP ratio mainly through a rise in the value added tax (VAT) and progressive income and wealth taxes, as well as in “purpose taxes” aiming at reducing carbon emissions and other negative environmental effects.

An active tax policy (including “environmental taxes”) leading to a higher and more progressive taxation generates several positive effects in terms of greater macroeconomic stability, lower inequality of the post-tax distribution, an increased supply of pro-growth and pro-poor public goods (infrastructure, human capital, law and order) and discouraging environmental damage.

As pointed out in the relevant literature reviewed in Cornia, Gomez-Sabaini and Martorano (2011), the ability of governments to raise taxes will depend very much on the “fiscal exchange” between the government and the citizens. Higher taxation is justified in fact, not for rent-seeking elites who captured the state, but only if a greater amount of public services is provided to the population, ideally in an increasing progressive way. Indeed, the pp-pg-pe development paradigm requires giving greater priority to public investment and social expenditure (education, health, nutrition, housing, and social protection) in ways that are pro-poor and that stimulate a low-carbon and pro-poor growth. The widespread rise in, among other things, primary and secondary school enrolment and vaccination rates financed through taxation (and in some cases aid) during the 2000s is an example of how such “fiscal exchange” can have a strong immediate impact on education and health, and a delayed one on poverty, inequality and future GDP growth. Evidence for a number of Latin American and South-East Asian countries further suggests that the incidence of public social expenditure (which focused more than before on services benefitting mostly the poor) became more progressive, as it improved the distribution of human capital among students and, with a lag, among workers. Moreover, as noted above, the “pp-pg-pe” paradigm would further encourage gradual increases in social insurance spending (by extending the scope of formal employment and pension coverage) and social assistance schemes such as the successful conditional and non-conditional cash transfers. The latter have proven to come at relatively low

cost (0.5 - 1.0 per cent of GDP) in most contexts, while generating large and measurable effects in terms of lower poverty incidence and inequality.

Finally, well-managed debt-financed public spending strategies may need to be part of the broader policy framework. As indicated earlier, important upfront public investments will be needed in many contexts to jumpstart sustainable agricultural development, sustainable energy strategies, broader economic diversification, and social infrastructure for human development. The costs of fiscal incentives promoting the pp-pg-pe strategy should be accounted for as well. Debt financing will be sustainable as long as the medium-term growth gains can be assured. This will require putting effective medium-term expenditure frameworks in place as part of the counter-cyclical macroeconomic policy regime, complemented by a credible tax reform programme and coherent with agricultural, industrial, energy and social policies.

Countercyclical monetary policy

While the liberal stance has traditionally aimed at single digit inflation by raising the policy rate (Blanchard and others, 2012), the new paradigm considers that monetary policy should not exclusively target low and stable inflation, but give at least equal consideration to adequate job creation and a fair income distribution. Thus the recommended approach would accept a more gradual decline of inflation, which in any case is already much lower than in the past, or even allow moderate rates of inflation to persist. This means that the nominal interest rate ought to increase less markedly than in the standard approach. This policy should help contain cost-push inflation, and at the same time avoid a contraction in investment and growth that would negatively affect employment. At the same time, the new stance argues also that monetary policy should be actively used for the sterilization of changes in the foreign exchange market, and that, in extreme cases, capital controls might be necessary to preserve monetary autonomy.

Prudential regulation of the financial sector

As suggested by the depth of the current sovereign debt crisis in Europe, a pp-pg-pe development strategy must strive to minimize the deleterious fluctuations of globalized financial markets. In this respect, future policy design can be inspired by the lessons that have emerged recently in some developing regions. Indeed, contrary to the case of the OECD and European

transition economies, the last decade witnessed fewer financial, currency, sovereign debt and/or banking crises in developing countries. For the case of Latin America, Porzekanski (2009) talks of a “missing financial crisis”. In turn, Rojas Suarez (2010) described that Latin American governments made progress in the past decade in reducing currency mismatches, adopting managed floating exchange-rate regimes, implementing more credible monetary and fiscal policies (see above), using capital controls, reducing external indebtedness, and accumulating foreign-exchange reserves. She also argued that Latin American governments enhanced the capitalization, funding and supervision of their banking systems, encouraged the development of local bond and other capital markets, introduced a stricter prudential regulation of their domestic financial system, enhanced risk-assessment mechanisms in a number of large banks, developed appropriate legal, judicial and accounting frameworks, while assigning a greater role in the financing of economic activity to state banks as these amplify much less than foreign banks the impact of global financial fluctuations on the domestic economy.

In addition, because the likelihood of large and unexpected international shocks will likely remain considerable in the foreseeable future, the minimization of their impact requires that multilateral organizations stand ready to provide liquidity to developing countries, a point more fully discussed in chapter 12 by Girvan and Cortez. Positive changes in this direction have already emerged with the increase in funding and broader role played by the IMF in lending greater amounts of resources with easier access and conditionality.

8.6 MINIMUM COMMON POLICY DENOMINATORS, BUT ...

ONE SIZE DOES NOT FIT ALL

The above discussion represents contours of “minimum common denominators” valid for different types of developing economies. Yet, in view of their heterogeneity it is important to explore in a somewhat greater detail the nature of the growth drivers and policies which will ensure the achievements of a pg-pp-pe pattern of growth—despite initial differences in the degree of food security, environmental footprints of key economic sectors, economic size, income per capita, prevailing production and export structures, weight of rural and agriculture-dependent population, degree of industrialization, dependence on foreign capital and food imports, and so on. By way of example, we present three stylized archetypes of developing coun-

tries to illustrate what the priorities and policy options would be if pp-pg-pe strategies were to be pursued.

Low-income agricultural countries

Agriculture remains the mainstay of many low-income economies in Africa and South Asia. As much as 60 to 80 per cent of the population still lives in rural areas, 50 to 70 per cent of the workforce is engaged in agriculture, and low land and labour productivity underpin high rates of poverty, food insecurity and processes of environmental degradation. Nonetheless, agricultural output accounts only for between 25 and 35 per cent aggregate GDP because of low, stagnant or even declining land yields. Today, these economies produce, on average, 30 per cent less food per person than they did in the 1960s. A stagnant food production promises even bleaker conditions for the long run, as by 2050 Africa (to which many of these poor countries belong) will have to increase food supply by 300 per cent in order to feed a projected population of 2 billion. With current policies, it is unlikely that such objective can be achieved and may remain challenging even if the policies suggested in section 8.4 are pursued.

It is obvious that raising agricultural productivity should be a first priority for these economies in order to secure higher income growth, employment creation and food security. The evidence in favour of such strategy is overwhelming (Byerlee, De Janvry and Sadoulet, 2009, De Janvry and Sadoulet, 2010; FAO, 2012, United Nations, 2011: chapter IV). Also, as indicated in section 8.4, there are ample technological options to do so in a sustainable way and with a focus on smallholder farming to generate the pro-growth, pro-poor and pro-environment outcomes. Economic theory and the recent experience of India, China and Vietnam show also that—in these types of economies—long-term development can hardly take place in the absence of an equitable modernization of agriculture and a rise in land yields. Low-income countries can learn from these experiences, but can gain further by ensuring environmental sustainability. Indeed, a strong agriculture reduces the prices of “wage goods” (food) and in this way keeps down real wages in industry and services, provides inputs to manufacturing, constitutes a large market for domestic industrial production, improves the balance of payments and reduces its volatility. Sustainable water and forest management, improving soils, deployment of environment-friendly agricultural techniques tend to add important opportunities for rural

employment creation and poverty reduction, next to ensuring food security becomes sustainable over time.

The new paradigm must therefore correct the relative neglect of agriculture⁴ and reverse the decline in investment and cultivated land of the last 30 years, which were two key factors contributing to the global food crises of 2007-2008 and 2009-2011. It must also aim at stabilizing food prices, enhancing food security and enhance income distribution and ease the structural transformation of low-income rural nations towards manufacturing and modern services, as it began to happen during the last 10-15 years in Bangladesh.⁵

Given the weakness or absence of the credit, input and factor markets, the development of agriculture cannot rely solely on market forces but should count also on public interventions aiming, *inter alia*, at:

- Increasing the use of improved seeds and modern inputs (including irrigation and fertilizers) in a broadly egalitarian agriculture. The overall success of the “green revolution” in India and Bangladesh suggests there is an ample margin for improvements in yields, while learning from past mistakes in terms of the negative impact on the environment, by focusing on sustainable technologies as discussed in section 8.4d.
- Restoring selected and sustainable subsidies to modern agricultural inputs as well as price stabilization mechanisms that were eliminated during the “get the prices right” era. Subsidies to inputs such as (organic) fertilizers and improved seeds may help smallholder farmers to access technology and markets until output growth has stabilized at a high level. With its StarterPack program, in 2002 Malawi began a program of subsidies for seeds and fertilizers with good returns in terms of maize output (Dorward, and others, 2010).
- Raising the allocation of public expenditure on extension services for an equitable diffusion of new agricultural technology and cooperative credit (*ibid.*). To avoid inflationary pressures, such increase in public expenditure on agriculture needs to be accompanied by an increase in tax revenue and greater foreign aid to agriculture. Many developing countries—including in economies where agriculture is dominant—have already intensified their effort in the tax area, but that further initiatives may be required.
- Carrying out research on neglected crops (many of them African crops), with the international research community playing a fundamental role as during the “green revolution” of the 1960s. The improved seeds and

technologies for the African agriculture should remain (as they were in the past, and unlike at the present time) “international public goods”. Aid to R&D in food research in selected regional institutions should also continue and be deepened towards adaptation of sustainable farming techniques to local circumstances (United Nations, 2011).

- Expanding investment in human capital, especially in rural areas, and “leapfrogging” into a rapid expansion of modern, but sustainable energy supplies, as discussed in, section 8.4.
- Phasing out agricultural subsidies in developed countries, a factor behind the rapidly increasing food imports and declines in agricultural production in developing countries. Otherwise, countervailing duties should be imposed on subsidized food imports from developed countries, while at the same time lowering tariffs on seeds, fertilizers and transport equipment.

Low and middle-income primary commodity exporters

These countries, in particular those exporting energy and metals, face considerable challenges linked to the volatility of their real exchange rate, Dutch Disease effects, high income inequality, strong dependence on imported food, environmental problems, and difficulties in diversifying the economy over the long term. Measures that have been shown to be able to address these issues include:

- The creation of domestic fiscal stabilization funds (such as the Chilean Copper Stabilization Fund), which stabilize public revenue in years of low commodity prices and so avoid large public expenditure cuts that exacerbate the impact of the shocks on growth, inequality and food security.
- Complementary policies that facilitate sterilization of excess foreign exchange earnings during booms, for instance through the use of offshore sovereign wealth funds which would store exports proceeds that cannot be absorbed productively into the economy. Sterilization of excess foreign exchange earnings this way could help avoid Dutch Disease problems and management of these resources to be such to promote intergenerational equity.
- Active promotion of a diversification of domestic production through the management of the exchange rate (which tends to appreciate), coherent industrial policies, and policies promoting energy transitions

towards use of renewables. This is particularly urgent in the case of fuel-exporters, assuming that in the coming decades the use of fossil-fuels is to be drastically reduced worldwide and hence new income sources will need to be created rapidly.

- Explicit taxation of the resource sector, so as to finance not only the diversification of the economy but also for reducing some of the highest income inequality via non-contributory income transfers to the poor (as currently done in several South American and South Eastern African countries).
- Policies to address the environmental costs of the mining and large-scale agriculture and livestock activities.

Emerging economies with a growing manufacturing sector

In many low-middle income, labour-abundant countries a key growth driver is labour and skill-intensive manufacturing and other rural non-farm (RNF) activities which include, for instance, agribusiness, fisheries, retail trade, cottage industries, marketing services, construction, transport, and various services—activities which, as in the famous case of the Chinese TVE, support rural-based industrialization and industrialization tout court. In China and Bangladesh, for instance, between 40 and 50 per cent of rural employment is in RNF. This task is facilitated by the rise of agricultural income made possible by the agricultural modernization which creates a market for non-traded goods (e.g. construction and services) and for “locally or regionally traded goods”, that is goods that are highly perishable, entail high transport cost, or satisfy the preferences of local consumers in some regions, but not others.

Besides an increasing capital accumulation and facilitating technological innovation by the private sector, the structural transformation towards such a “broad-based industrialization” generally requires:

- Investing in physical infrastructure (roads, improved transportation and communications, electrification, linkages to nearby domestic markets). The presence of developed rural towns and rural-based agro-industry and low transport costs may facilitate the linkage between rural and urban areas and facilitate both production and exchange. A further step could be the creation of mini industrial parks equipped with electricity, water, gas, storage space and able to facilitate the transfer of technology among firms.

- Increased access to skills, and availability of finance.
- A reduction of transaction costs for the creation of firms, particularly small and medium-sized enterprises (SMEs). Given their lower investment per capita and greater flexibility, SMEs can promote a “broad-based (or popular) industrialization” and play a central role in soaking up surplus labour.
- Reducing the licensing and administrative barriers to access credit, investment goods and technology.
- Attracting, in the more advanced low-income countries, FDI to build hub-and-spoke SME clusters in which the latter work as subcontractors of the foreign firms, benefiting from their technical knowledge and spin-offs of skilled personnel. A number of developing countries (including some East Asian ones, Costa Rica, and others) have been highly successful, for different reasons, in attracting greenfield FDI. Success of these measures requires also *ex ante* evaluation of the environmental impact of industrialization and orientation of investments and incentive structures towards low-carbon energy generation as well as substantial improvements in energy efficiency in order to transition towards a green economy along the lines of coherent industrial, energy, environmental, fiscal and monetary policies, as outlined in section 8.4e.

8.7 AN ENABLING GLOBAL ENVIRONMENT AND POLICY SPACE

The “minimum common denominator” for policymaking was derived in part from the development experiences of past decades of East Asian and Latin American countries. None of these fit the “pp-pg-pe” paradigm in full. In particular, achieving green and inclusive growth has been elusive in most cases as pro-environment objectives hardly featured and pro-growth targets typically received greater weight than equity considerations in the development strategies of the past. Moving forward, applying the pp-pg-pe paradigm thus will be a challenge for all countries, as there are no tested recipes as yet. Hence, a lot of policy experimentation will be needed to find successful pathways for sustainable development. The elements of the “minimum common denominator” may serve as a guide.

The policy experimentation will have to take place in an increasingly interconnected and unstable world economy. This, as well as international rules setting through the WTO and international financial regulation, have provided developing countries with less policy space than may have

existed before. A more enabling global economic environment in terms of less global market instability and greater flexibility in multilateral rules setting would help developing countries regain the policy space they need. Balancing objectives for, on the one hand, a fair but non-discriminatory trading system, sound multilateral environmental agreements, and strict regulation of financial markets, and, on the other hand, adequate policy space for developing economies to find their own pathways to overcome structural hurdles towards greater and sustainable prosperity, will obviously be challenging.

The Brundtland Report (WCED, 1987) laid out the principle of common-but-differentiated responsibilities to guide collective action and frameworks for global governance towards the common objective of global sustainable development. Applying this principle in practice has proven to be very difficult, if only visible in the long stalled negotiations for the, supposedly developmental, Doha Round of trade negotiations and difficulties to reach binding targets for greenhouse gas emission reductions that recognize differentiated responsibilities. The “minimum common denominators”, as spelled out in this chapter, imply developing countries would need considerably more national policy space, especially in earlier stages of development. The subsequent chapters in this volume elaborate on the pitfalls of present mechanisms of global economic governance and how these would need to be reformed to provide a better enabling environment and also the policy space developing countries need in order to effectively pursue pp-pg-pe development strategies.

NOTES

- 1 Social and environmental targets were set by sectoral initiatives, starting with the MDGs, however, without taking into account possible trade-offs among them while flatly ignoring the issue of income inequality. In any case, such uncoordinated approach was not able to address simultaneously the intertwined problems caused by the quadruple crises discussed in the text.
- 2 The government of Brazil had an essential role to play in providing incentives to scale up production and in setting up a clear institutional framework. This role included setting technical standards, supporting the technologies involved in ethanol production and use, providing financial advantages, and ensuring appropriate market conditions. Replacing old technologies, like gasoline in the case of Brazil, with renewable sources entails the challenge of making complementary investments along the supply chain. In the particular case of gasoline, consumers are reluctant to buy cars using a new fuel that may be difficult to find. Service station owners are not interested in investing in a parallel fuel distribution system, since the number of potential users is usually very small. This is why government policies to spur investment and drive demand for selected technologies are so important.
- 3 See chapter 12 by Girvan and Cortez for the implications for the international trading regime.
- 4 The dominance of macroeconomic and liberalization concern of the 1980s and 1990s and low food prices during a decade diverted everyone's attention from the problems of declining availability and poor distribution of farmable land (at times in spite of important land reserves), limited availability of irrigation, very low rates of fertilizer use and no or weak price stabilization mechanisms, low national and international R&D expenditure on African crops (millet, sorghum, cassava and yam), the absence or imperfection of factor markets (land, credit and insurance), as well as declining public and private investments in agriculture. The new investments in the land by foreign countries (generally referred to as "land grabs") are unlikely to solve this problem, though more research is needed on this topic.
- 5 Bangladesh is notable for some success in this regard. In this country the green revolution pivoted around a widespread use of high-yielding varieties of rice and other cereals, the increased use of chemical fertilizers and pesticides, and a rapid increase in irrigation through both deep- and shallow-tube wells. The new technology and related improvement in market systems have spread across the country, and double cropping (sometimes triple) has become typical in many areas of Bangladesh, which, in recent years, has become self-sufficient in food grains.

REFERENCES

- Ackerman, F., R. Kozul-Wright and R. Vos (2012). *Climate Protection and Development*, London: Bloomsbury Academic.
- Adam, C. and D. Bevan (2001). *Non-linear Effects of Fiscal Deficits on Growth in Developing Countries*. Working Paper, Department of Economics, Oxford University, Oxford.
- Addison, T., C. Arndt and F. Tarp (2010). The Triple Crisis and the Global Aid Architecture, UNU-WIDER, Working Paper No. 2010/01, Helsinki.
- Akyüz, Y. (2011). Export Dependence and the Sustainability of Growth in China. *China & World Economy*, vol. 19, No 1, pp. 1-23.
- Andersen, P. P., F. Stewart and M. Jaramillo (1987). The impact on government expenditure. In *Adjustment with a Human Face: Protecting the Vulnerable and Promoting Growth*, Vol. I, G.A. Cornia, F. Stewart and R. Jolly (eds). Oxford: Oxford University Press.
- Bentaouet-Kattan R. and N. Burnett (2004). *User fees in primary education*. Washington, D.C.: World Bank.
- Birdsall, N., R. Levine and A. Ibrahim (2005). *Toward universal primary education: Investments, incentives, and institutions*. New York: United Nations Development Programme.
- Blanchard, O., D. Romer, M. Spence, and J. Stiglitz (eds.) (2012). *In the Wake of the Crisis: Leading Economists Reassess Economic Policies*. Cambridge, Mass.: MIT Press.
- Byerlee, D., A. de Janvry, and E. Sadoulet (2009). Agriculture for Development: Toward a New Paradigm. *Annual Review of Resource Economics*, vol. 1, No. 1, pp. 15-35.
- Chang, Ha Joon (2008). *Bad Samaritans: the Myth of Free Trade and the Secret History of Capitalism*. New York: Bloomsbury Press.
- Cornia, G.A. (2006). *Pro-Poor Macroeconomics: Potential and Limitations*. Basingstroke: Palgrave Macmillan.
- Cornia G.A. (2012). The New Macro Fundamentals and Income Inequality. Paper prepared for the Conference in honour of Prof. Sir Richard Jolly, 17-18 November 2011, Brighton, Sussex: Institute of Development Studies. Available from <http://www.ids.ac.uk/files/dmfile/CorniaNewMacroFundamentalsandInequality12.pdf>.
- Cornia, G. A., J. C. Gomez-Sabaini and B. Martorano (2011). A New Fiscal Pact, Tax Policy Changes and Income Inequality: Latin America during the last Decade. UNU-WIDER Working Paper No. 2011/67, Helsinki.
- Cruces, G., C. García Domench, and L. Gasparini (2011). Inequality in Education: Evidence for Latin America. UNU-WIDER Working Paper No. 2011/93, Helsinki.
- Damill, M. and R. Frenkel (2012). Macroeconomic policies, growth, employment and inequality in Latin America. Forthcoming as UNU-WIDER Working Paper.
- De Janvry, A. and E. Sadoulet (2010). Agricultural growth and poverty reduction. Additional evidence. *The World Bank Research Observer*, vol. 25, No. 1, pp. 1-20.

- Dorward, A., E. Chirwa and T.S. Jayne (2010). The Malawi Agricultural Inputs Subsidy Programme, 2005/6 to 2008/9, SOAS, May 2010.
- Enkvist, P.A., T. Naclér, and J. Rosander (2007). A cost curve for greenhouse gas reduction. *The McKinsey Quarterly* 1, pp. 35-45.
- FAO (2012). *The State of Food Insecurity in the World 2012*. Rome: Food and Agricultural Organization, World Food Programme and International Fund for Agricultural Development.
- Fisher, A. M. (2010). Is China Turning Latin? China's Balancing Act Between Power and Dependence in the Lead up to the Global Crisis. *Journal of International Development*, 22, pp. 739-757.
- Griffith-Jones, S. and J.A. Ocampo (2011). Global Governance for Financial Stability and Development. Initiative for Policy Dialogue Working Paper Series, New York: IPD/Columbia University. Available from http://policydialogue.org/files/publications/Griffith-Jones_Ocampo1.pdf.
- Helleiner, G. K. (1997). Capital account regimes and the developing countries. In *International Monetary and Financial Issues for the 1990s, Vol. VIII*. New York and Geneva: UNCTAD.
- Helleiner, G. K. (2011). Trade, Exchange Rates and Global Poverty: Policies for the Poorest. Paper prepared for the Conference in honour of Prof. Sir Richard Jolly, 17-18 November 2011, Brighton, Sussex: Institute of Development Studies.
- Kakwani, N., S. Khander and H.H. Son (2004). Pro-poor growth: Concepts and Measurement with Country Case Studies. International Poverty Centre of UNDP, Working Paper No. 1.
- Linnerooth-Bayer, J. and R. Mechler (2007). Insurance against natural disasters in developing countries. Background paper prepared for the United Nations *World Economic and Social Survey 2008*. New York: United Nations.
- Nelson, G.C. and others (2009). Climate Change: Impact on Agriculture and Costs of Adaptation. *IFPRI Food Policy Report*, October. Washington D.C.: International Food Policy Research Institute.
- Ocampo, J.A. (2012). The development implications of the external integration of Latin America. UNU-WIDER Working Paper 2012/048, Helsinki.
- Ocampo, J.A. and R. Vos (2008). *Uneven Economic Development*. London and Hyderabad: Zed Books and Oriental Longman.
- OECD (2012). *Perspectives on Global Development 2012: Social Cohesion in a Shifting World*. Paris: Organization for Economic Cooperation and Development.
- Ortiz, I., J. Chai and M. Cummings (2011). Austerity measures threaten children and poor households: recent evidence in public expenditure from 128 countries. Unicef SEP Working Paper, September 2011.
- Porzekanski, A. (2009). *Latin America: The Missing Financial Crisis*. Munich Personal RePEc Archive, No. 18974, November 2009.
- Ranis, G. and F. Stewart (2000). Strategies for success in human development. *Journal of Human Development*, vol.1, No. 1, pp. 49-70.
- Rodrik, D. (2005). Rethinking Growth Strategies. Annual WIDER Lecture No. 8, UNU-WIDER, Helsinki.

- Rodrik, D. (2007). *One Economics, Many Recipes: Globalization, Institutions and Economic Growth*. Princeton and Oxford: Princeton University Press.
- Rojas Suarez, L. (2010). The International Financial Crisis: Eight Lessons for and from Latin America. Centre for Global Development Working Paper 202, January.
- Roubini, N. (2011). China's Unsustainable Growth Model: The Rising Risk of a Hard Landing After 2013. Roubini Global Economics, New York, August 17. (<http://www.roubini.com/analysis/161268.php>)
- Sánchez, M. V., R. Vos, E. Ganuza, H. Lofgren, and C. Diaz-Bonilla (eds.) (2010). *Public Policies for Human Development*. Basingstroke: Palgrave Macmillan.
- Sánchez, M.V. and R. Vos (eds.) (2012, forthcoming). *Financing Human Development in Africa, Asia and the Middle East*. London: Bloomsbury Academic.
- United Nations (2009). *World Economic and Social Survey 2009: Promoting Development, Saving the Planet*. New York: United Nations Department of Economic and Social Affairs.
- United Nations (2010). *World Economic and Social Survey 2010: Retooling Global Development*. New York: United Nations Department of Economic and Social Affairs.
- United Nations (2011). *World Economic and Social Survey 2011: The Great Green Technological Transformation*. New York: United Nations Department of Economic and Social Affairs.
- World Watch Institute (2008). *Green Jobs: Towards Decent Work in a Sustainable, Low-Carbon World*. Report prepared for UNEP, ILO, IOE, and ITUC Green Jobs Initiative. Nairobi: United Nations Environmental Programme.
- Vos, R. and R. Kozul-Wright (2010). *Economic Insecurity and Development*. New York: United Nations.
- Wade, R. (1992). *Governing the Market*. Princeton and Oxford: Princeton University Press.
- World Commission on Environment and Development (WCED) (1987). *Our Common Future* (the Brundlandt Report). Oxford: Oxford University Press.
- World Bank (2008). *The welfare impact of rural electrification: a reassessment of the costs and benefits – An IEG Impact Evaluation*. Washington D.C.: World Bank Independent Evaluation Group.
- Yongdin, Yu (2011). Chapter outline for Committee for Development Policy project, UN Department of Economic and Social Affairs. Presented at the CDP session, 3 March 2011.