Distinguishing Middle-Income Countries from Low-Income and High-Income Countries

1. Indicators developed by the global development community and think-tanks show that middle-income countries (MICs) have the potential to reach performance levels that are at par with those of high-income countries (HICs) by improving their physical infrastructure and logistics, education and health care, and other social infrastructure; institutional mechanisms; governance and markets; financial systems and enterprises; and physical environment, among others.

2. Competitiveness. Competitiveness can be conceptualized as a function of the set of institutions, policies, and factors that determine the total factor productivity level in a country. The global competitiveness index (GCI) aggregates measures for the following: (i) macroeconomic environment, institutions, infrastructure, health, and basic education, which are the prime concerns of factor-driven economies; (ii) higher education and skills, goods market efficiency, labor market efficiency, financial market development, market size, and technological readiness, which are of prime importance in driving economic efficiency; and (iii) business sophistication and technological innovation aimed at increasing production efficiency, which are important to innovation-driven economies. The methodology for computing the GCI score recognizes that countries do not abandon any specific development area, even though it may not be accorded the same priority as before. The GCI provides a glimpse of the types of issues likely to be increasingly of interest in the coming years to a particular MIC.

3. Subject to reservations on the choice of variables that define GCI, and the measurement-related issues associated with the indicators, Figure 1 shows that the Organisation for Economic Co-operation and Development (OECD) countries generally have a higher score than upper middle-income countries (UMICs), which in turn have a higher score than lower middle-income countries (LMICs).

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2 The macroeconomic environment is important for business, as borne by the harm that macroeconomic disarray can bring about. Institutions are the legal and administration framework within which individuals, firms, and governments interact. Infrastructure is critical for ensuring the effective functioning of an economy. Health impinges directly upon productivity and basic education provides basic skills.
3 Higher education and training enable economies to move up the value chain. Goods market efficiency comes from healthy market competition (both foreign and domestic). Labor market efficiency comes from allocating workers to the most effective use and incentivizing them. Financial market development efficiently allocates national savings and cross-border (inward) capital flows. Technological readiness is a measure of the agility with which an economy adopts existing technologies to enhance the productivity of its industries. Market size (both foreign and domestic) influences the scale of operation.
4 Business sophistication refers to business networks and the quality of individual firms’ operations and strategies. Technological innovation refers to improvements in products, processes, and organizational methods aimed at increasing production efficiency.
5 For instance, the methodology recognizes that (i) basic requirements of macroeconomic stability, good institutions and infrastructure, and basic education and skills for LMICs in stage 1 (factor-driven stage of development) are important; (ii) countries will be increasingly required to turn their attention to labor and capital mobility and efficiency related issues as they move toward stage 2 (efficiency-driven stage of development); and (iii) the same countries will be working toward facilitating the establishment and use of business networks and innovation as they reach stage 3 (innovation-driven stage of development).
4. **Innovation.** Technical and organizational innovations lead to changes in total factor productivity and welfare benefits. The GCI adopts a somewhat narrow view of innovation, by focusing largely on research and development and intellectual property aspects. This is consistent with the traditional thinking that breakthroughs normally occur at the knowledge frontier. However, this misses the point that innovation can also come from the ability to exploit new technological combinations, and that such innovation need not entail massive expenditure on research and development. Innovation is akin to knowledge production and can occur in developing countries.

5. The global innovation index (GII), which was launched in 2007, has attempted to find approaches that better capture the richness of innovation in firms, governments, and societies. In so doing, it appears GII is beginning to incorporate many aspects covered by GCI. This is particularly true for those that relate to the basic prerequisites for innovation, referred to as the innovation input sub-index in GII. This incorporates measures for institutional, infrastructure, human capital, research, market sophistication, and business sophistication. It is interesting to note that GII also incorporates an innovation output sub-index, which purports to capture: (i) knowledge generation, diffusion, and impact; and (ii) creativity aspects. Some of these are intangibles, and some reflect the dawn of the internet age.

6. Subject to reservations on the choice of indicators and proxies and measurement related problems, the average GII for both low-income countries and MICs falls short of OECD countries (Figure 2). This is not surprising given the overlap between the variables that define GCI and GII. The Spearman Rank Correlation between the two is also reasonably high at 70%.

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7. Change readiness. The change readiness index, which was designed on the premise that no business or society is immune to change, tries to capture the capability of a country to anticipate, prepare for, manage, and respond to a wide range of change drivers. It is structured around three pillars: (i) government capability, i.e., the capability of governmental and public regulatory institutions; (ii) enterprise capability, i.e., the capability of private and state-owned enterprises; and (iii) people and civil society capability, i.e. individual, societal, and cultural determinants of capability. The pillars incorporate many indicators that are similar to those in GCI and GII. As for GCI and GII, OECD countries score higher than MICs (Figure 3). The Spearman Rank Correlation between GCI and change readiness index is close to 80%.

8. Doing business. The World Bank Group’s Doing Business Index is a measure of the quality and efficiency of regulations that govern the setting up, functioning, and closure of domestic businesses. It provides insights into understanding the extent to which government regulations can help create a dynamic private sector that in turn generates profits, creates jobs, and provides tax revenue to the
government. By comparing Doing Business Index and its various sub-indexes across countries, the index can provide insights into the type of measures that a government needs to take to encourage private sector.

9. The 2016 index covers 189 countries, including 22 LMICs and 11 UMICs from Asia and the Pacific region. To provide a better understanding of how these MICs compare with best practices worldwide (the first ranked country in 2016 was Singapore), the distance-to-frontier is computed along various dimensions. Figure 4 shows that, apart from the relative ease of starting a business in UMICs, which is broadly in line with the global best practices, many UMICs have significant scope to improve their business regulations for domestic firms. The gap is more pronounced for LMICs.

10. **Governance.** Governance is the manner in which power is exercised in the management of a country’s economic and social resources, with the four key elements of good governance being participation, predictability, transparency, and accountability. Among the various important aspects of governance is the budgetary process, which should be transparent and participative. The Open Budget Index for 2015 covers 102 countries and compares budget transparency, opportunities for public participation, and the strength of oversight institutions (the legislature and the apex audit body). It attempts to capture the actual institutional practices in implementing policies and regulations rather than what is mandated by law. The findings are reviewed by experts, and governments are invited to review and comment on the findings and results. The results broadly show that those countries assessed to be making sufficient budget information publicly available tend to have higher income levels (Figure 5).

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10 The frontier represents the highest performance observed across all economies, on each of 10 sub-indexes. An economy’s distance to the frontier is reflected on a scale from 0 to 100, where 0 represents the lowest performance and 100 represents the frontier.
11. Corruption is an important aspect of governance. The corruption perception index shows once again that MICs as a whole lag behind OECD countries (Figure 5). This comes out even though there is no meaningful way to assess absolute levels of corruption in countries on the basis of hard empirical data. Such indexes have to rely on perceptions of corruption, simply because it is difficult or impossible to find information that is normally deliberately hidden and comes to light only through scandals, investigations, or prosecutions.\textsuperscript{13}

12. **Human development.** The human development framework views development from a human perspective. It emphasizes that the true aim of development is not just to boost incomes but also to maximize choices available to people. The human development index assesses human well-being from a broad perspective and takes into account the ability to (i) live long and healthy lives, as measured by life expectancy at birth; (ii) acquire knowledge, as measured by mean and expected years of schooling; and (iii) achieve a decent standard of living, as indicated by GNI per capita.\textsuperscript{14} Figure 6 clearly shows that MICs have some catching up to do.

\textsuperscript{13} The high score of HICs on the corruption perception index means they are less corrupt—the scoring system assigns a score of zero to a country where the public sector is perceived as highly corrupt and 100 where it is perceived as very clean. Transparency International. 2016. *Corruption Perceptions Index 2015*. Berlin. http://www.transparency.org/cpi2015

\textsuperscript{14} http://hdr.undp.org/en/content/human-development-index-hdi
A broader set of indicators can be useful for gauging the extent of social inclusion. These may include the extent to which a country has created an enabling environment for (i) providing high quality education for all; (ii) creating jobs and improving labor force participation and decent working conditions; (iii) supporting asset accumulation and production enhancing entrepreneurship; (iv) channeling private savings for productive purposes; (v) allocating resources efficiently and supporting competitive markets; (vi) investing in infrastructure and basic services to enable productive engagement; and (vii) putting in place a tax system that countervails income inequality without undermining economic growth. The World Economic Forum has attempted to compile data for such an index, although it has been difficult to aggregate the data to arrive at a composite index value for each country.  

Logistics performance. Good logistics means increasing supply-chain efficiency, which in turn improves competitiveness in international trade and commerce. This has propelled logistics performance to become a matter of public policy—although many logistics service providers are private firms. The Logistics Performance Index (LPI) purports to compare logistics performance across countries, and captures performance in four main areas: infrastructure, services, border procedures, and reliability of the supply-chain. Figure 7 shows the generally better performance of OECD countries vis-à-vis MICs.

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Environmental performance. The need to protect all types of ecosystems—terrestrial, fresh water, and ocean—for sustainable development is now generally accepted. Additionally, it is recognized that environmental degradation can have significant implications for human health. The environmental performance index ranks countries by their performance on two areas—protection of ecosystems and protection of human health. The ecosystem sub-index includes indicators for forests and tree cover, agriculture, nitrogen use, water resources, wastewater treatment, biodiversity and habitats, fish stocks, terrestrial and marine protected areas, and trends in carbon intensity. The human health sub-index includes indicators for indoor and ambient air quality, access to drinking water and sanitation, and associated health impacts from exposure to poor air and water quality. The findings (Figure 8) show that OECD countries perform significantly better than MICs.