

Review of indicators: Background research for the Capability Index initiative

| VULNERABILITY INDICATORS | | | | | |
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| Commonwealth Secretariat Composite Vulnerability Index (CVI) (see also Atkins, J. P., Mazzi, S. and C. D. Easter (2000), "A Commonwealth Vulnerability Index for Developing Countries. The Position of Small States", London) 2000 | Measure the vulnerability of countries, i.e. the exposure to external economic and environmental shocks. Vulnerability is seen as the consequence of two elements: <i>impact</i> ("incidence and intensity of risk and threat") and <i>resilience</i> ("ability to withstand risks and threats and to bounce back from external economic and environmental shocks") (see Atkins et al. 2000). | 111 developing countries (37 small and 74 large). | CVI is based on three key components: the lack of export diversification, export dependence, impact on natural disasters. | CVI is a composite index which is constructed through a two-stage procedure. First, to measure the incidence and intensity of risk, an econometric analysis (regression method) is used to identify among a group of about fifty variables those which are highly significant indicators influencing GDP volatility (which is assumed to be a suitable proxy for vulnerability). The three most significant indicators found are the lack of export diversification (measured by the UNCTAD export diversification index), export dependence (measured by the export to GDP ratio) and the impact of natural disasters (measured by the share of population affected by natural disasters). These elements are combined to create the vulnerability impact index which is the first component of the CVI. Then, to account for resilience, the vulnerability impact index is weighted by GDP thus establishing the CVI. | Data are sourced from international organizations (e.g. UNCTAD, World Bank, etc.). Quantitative data are used. |

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| <p>Commonwealth Secretariat / University of Malta</p> <p>Economic Resilience Index</p> <p>2008</p> | <p>Measure countries' resilience, i.e. "[...] the effect of shock absorption or shock counteraction policies across countries" (Briguglio et al. 2008)</p> | <p>86 developing and developed countries.</p> | <p>The index relies on four indicators: (i) macroeconomic stability; (ii) microeconomic market efficiency; (iii) governance; (iv) social development.</p> | <p>The index is computed as a simple average of four indicators:</p> <ul style="list-style-type: none"> • macroeconomic stability is the product of the simple average of three variables: (i) the fiscal deficit to GDP ratio; (ii) the sum of the unemployment and inflation rates; and (iii) the external debt to GDP ratio; • microeconomic market efficiency is measured by the "regulation of credit, labor and business" component of the Economic Freedom of the World Index (Gwartney and Lawson, 2005), which assesses to what extent regulatory control and bureaucratic procedures limit competition and the operation of financial, labor and product markets; • governance is measured by a component of the Economic Freedom of the World Index which accounts for five elements: (i) judicial independence; (ii) impartiality of courts; (iii) the protection of intellectual property rights; (iv) military interference in the rule of law; and (v) political system and the integrity of the legal system. • social development is measured by the sum of the education and health indicators of the UNDP human development index (HDI), where education is measured by adult literacy rates and school enrolment rates, while health is measured by life expectancy at birth. The value of these components is then standardized through the normalization procedure. | <p>Data are sourced from IMF, World Bank, UNDP, etc. Quantitative and qualitative data are used.</p> |

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| <p>Commonwealth Secretariat</p> <p>Composite Global Vulnerability Index (GVI)</p> <p>2010</p> | <p>Determine a country vulnerability profile, i.e. the sources of vulnerability and their relative weights.</p> | <p>145 developing and developed countries (Goto 2010)</p> | <p>The GVI is a global vulnerability index which relies on economic (openness degree, inflation, food import, total debt service), environmental (natural disasters victims) and insularity (logistics performance index, population size) components.</p> | <p>Core vulnerability variables have been selected through the Nepomiatchy-Ravelli (1978) algorithm associated with the graph theory (Angeon and Bates 2010). The range of this index goes from 0 to 1, with higher scores meaning higher vulnerability.</p> | <p>Quantitative data.</p> |
| <p>United Nations Committee for Development Policy (CDP)</p> <p>UN Economic Vulnerability Index (EVI)</p> <p>Every three years over the period 2000-2006 / 2006</p> | <p>Assess structural economic vulnerability to identify the LDCs and decide which countries are to be graduated from the LDCs list.</p> | <p>65 LDCs and other low-income countries (in 2006).</p> | <p>The EVI relies on two key components: the shock index and the exposure index.</p> | <p>The EVI is a composite index computed as a simple average of two indicators: the shock index and the exposure index (Guillaumont 2008). The shock index is the simple average of the natural shock index, which in turn is obtained by giving equal weights to instability of agricultural production and homelessness due to natural disasters, and the trade shock index (instability of exports of goods and services). The exposure index is the weighted average of economic smallness, economic remoteness (location index), primary activities as a percentage of GDP and merchandise export concentration (specialization index).</p> | <p>Data sources include UNCTAD, CERDI, CRED's Emergency Events database, etc. Quantitative data are used.</p> |

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| <p>Naude et al. (2008)</p> <p>Local Vulnerability Index (LVI)</p> <p>2008, one-off study</p> | <p>Measure economic vulnerability of different regions within countries (Naude et al. 2008).</p> | <p>1 country: South Africa (354 magisterial districts from South Africa)</p> | <p>The key components are selected among a group of ten indicators: size of the local economy, structure of the local economy, international trade capacity, peripherality, development level of a district, income volatility, demography and health, governance, environment and geography, access to financial systems.</p> | <p>A principal component analysis is used to construct the <i>local vulnerability index</i> (LVI) from the set of ten indicators. Then, the obtained LVI is conditioned on income per capita (considered a measure of resilience) in order to define a <i>vulnerability intervention index</i> (VII), which “indicates the locations where higher income per capital may be unlikely in itself to reduce vulnerability”.</p> | <p>Data stem from the Global Insight’s Regional Economic Focus which in turn is compiled from various official sources of data, such as Statistics SA Census and survey data, as well as data from the South African Centre for Industrial and Scientific Research (CSIR). Quantitative, qualitative and survey-based data are used.</p> |

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| Inter-American Development Bank (IADB) Prevalent Vulnerability Index (PVI) 2000 | Estimate countries' predominant vulnerability conditions. It is part of a broader system of indicators including the Disaster Deficit Index, the Local Disaster Index and the Risk Management Index which aims to describe a series of risk factors that a country should reduce through public policies and actions in order to diminish its vulnerability and maximise the resilience and coping capacity of its population. | 14 Latin American and Caribbean developing countries | 24 indicators grouped into three categories: (i) indicators of exposure and susceptibility (e.g. population growth, urban growth, population density, etc.); (ii) indicators of socio-economic fragility (e.g. inequality, unemployment, human poverty index, etc.); (iii) indicators of (lack of) social resilience (gender-related development index, governance index, etc.) | The PVI is constructed as a simple average of the three composite indicators: indicators of exposure and susceptibility, indicators of socio-economic fragility, indicators of lack of social resilience. PVI employs min-max normalization to restrict the value range of indicators between 0 and 1. | Quantitative and survey-based data. |

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| Inter-American Development Bank (IADB) Risk Management Index (RMI) 2000 | Assess risk management performance. It is part of a broader system of indicators including the Disaster Deficit Index, the Local Disaster Index and the Prevalent Vulnerability Index which aims to describe a series of risk factors that a country should reduce through public policies and actions in order to diminish its vulnerability and maximise the resilience and coping capacity of its population. | 13 Latin American and Caribbean developing countries. | Four key components: risk identification, risk reduction, disaster management, and financial protection and governance. Risk identification is a measure of individual perceptions, how those perceptions are understood by society as a whole, and the objective assessment of risk. Risk reduction involves prevention and mitigation measures. Disaster management involves measures of response and recovery. Financial protection and governance measures the degree of institutionalization and risk transfer. | 24 indicators including risk management training and education, implementation of control and protection techniques prior to hazard events, organization and coordination of emergency operations, existence of social safety nets and funds, etc. are used to create the four composite indicators (risk identification, risk reduction, disaster management, financial protection and governance) and then the RMI is computed as a simple average of these four indicators. | Qualitative data. |

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| <p>Yale University / Columbia University</p> <p>Environmental Sustainability Index (ESI)</p> <p>2005 (previous versions in 2000, 2001, and 2002)</p> | <p>Measure the ability of countries to protect the environment over the next several decades.</p> | <p>146 developing and developed countries</p> | <p>Five core components: environmental systems, environmental stresses, human vulnerability to environmental stresses, social and institutional capacity, and global stewardship.</p> | <p>The index uses 76 variables (or data sets) - tracking natural resource endowments, past and present pollution levels, environmental management efforts, and the capacity of a society to improve its environmental performance - reduced to 21 sub-indices to create an overall sustainability score by summing each sub-index and then taking the average. The variables selection was conducted through an extensive review of the environmental literature, assessment of available data, rigorous analysis, and broad-based consultation with policymakers, scientists, and indicator experts.</p> | <p>Quantitative and survey-based data.</p> |

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| <p>Yale University / Columbia University (in collaboration with World Economic Forum & Joint Research Centre of the European Commission)</p> <p>Environmental Performance Index (EPI)</p> <p>2010 (previous versions in 2006 and 2008)</p> | <p>Measure the effectiveness of national environmental protection efforts. In particular the EPI highlights current environmental problems and high priority issues; tracks pollution control and natural resource management trends at regional, national, and international levels; identifies policies currently producing good results; identifies where ineffective efforts can be halted and funding redeployed; provides a baseline for cross-country and cross-sectoral performance comparisons; facilitates benchmarking and offers decision-making guidance; spotlights best practices and successful policy models.</p> | <p>163 developing and developed countries.</p> | <p>The EPI relies on two key components: (i) environmental health, (ii) ecosystem vitality. The former measures environmental stresses to human health, while the latter measures ecosystem health and natural resource management.</p> | <p>25 indicators are aggregated with different weights to get scores for ten core policy categories: (1) Environmental Burden of Disease; (2) Water Resources for Human Health; (3) Air Quality for Human Health; (4) Air Quality for Ecosystems; (5) Water Resources for Ecosystems; (6) Biodiversity and Habitat; (7) Forestry; (8) Fisheries; (9) Agriculture; and (10) Climate Change. These are next aggregated with different weights to get scores for the two key components of Environmental Health and Ecosystem Vitality; and finally the overall Environmental Performance Index is calculated as the simple average of the two broad components scores.</p> | <p>Data stems from international organizations (e.g. FAO, World Bank, UNEP, OECD, etc.), NGOs, government agencies, and academia. Quantitative data are used.</p> |

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| <p>South Pacific Applied Geoscience Commission (SOPAC)</p> <p>SOPAC Environmental Vulnerability Index (EVI)</p> <p>2005 (works started in 1999 and a preliminary version was available in 2004)</p> | <p>Measure vulnerability to environmental change. In particular, to assess to which the natural environment of a country is prone to damage and degradation.</p> | <p>234 developing and developed countries with an emphasis on SIDS.</p> | <p>Three key components: hazards; resistance; damage. The hazard component relates to the frequency and intensity of hazardous events. The resistance component refers to the inherent characteristics of a country that would tend to make it more or less able to cope with natural and anthropogenic hazards. The damage component relates to the vulnerability that has been acquired through loss of ecological integrity or increasing levels of degradation of ecosystems.</p> | <p>50 indicators (e.g. high winds, wet periods, hot periods, isolation, migration, tsunamis, waste, population, etc.), which may be classified into the three key components (hazard, resistance and damage) as well as into policy-relevant sub-indices (climate change, biodiversity, water, agriculture and fisheries, human health aspects, desertification, exposure to natural disasters), are combined by simple averaging to obtain the EVI. These indicators have been developed in consultation with international experts, country experts, other agencies and interest groups. The scale of analysis is at the country level with the emphasis on Small Island Developing States (SIDS).</p> | <p>Quantitative data.</p> |

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| <p>World Bank</p> <p>Worldwide Governance Indicators (WGI)</p> <p>Every two years in the period 1996-2000 and every year in the period 2002-2008 / 2008</p> | <p>Measure governance.</p> | <p>212 developing and developed countries</p> | <p>The WGI refers to six different dimensions of governance: Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption .</p> | <p>By using an unobserved components model 441 individual variables on governance perceptions are aggregated into the six key components. These aggregate indicators are weighted averages of the underlying data, with weights reflecting the precision of the individual data sources.</p> | <p>35 data sources (e.g surveys of firms and individuals, assessments of commercial risk rating agencies, non-governmental organizations, multilateral aid agencies and other public sector organizations) provided by 33 different organizations from around the world. Subjective or perceptions-based data.</p> |

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| <p>World Bank</p> <p>Country Policy and Institutional Assessment (CPIA)</p> <p>Every year / 2009</p> | <p>Assesses the quality of a country's present policy and institutional framework. Quality refers to how conducive that framework is to fostering poverty reduction, unsustainable growth, and the effective use of development assistance.</p> | <p>All the World Bank's IBRD and IDA-eligible borrowing countries (127 developing countries).</p> | <p>Four key components: (i) economic management; (ii) structural policies; (iii) policies for social inclusion and equity; (iv) public sector management and institutions.</p> | <p>16 criteria (i.e. macroeconomic management; fiscal policy; debt policy; trade; financial sector; business regulatory environment; gender equality; equity of public resource use; building human resources; social protection and labour; policies and institutions for environmental sustainability; property rights and rule-based governance; quality of budgetary and financial management; efficiency of revenue mobilization; quality of public administration; transparency, accountability, and corruption in the public sector) are grouped into four clusters (economic management, structural policies, policies for social inclusion and equity, and public sector management and institutions) that are weighted equally to derive the overall CPIA rating. Within each cluster, all criteria receive equal weight, although components within a criterion may be weighted differently. The overall score is obtained by calculating the average score for each cluster, and then by averaging the scores of the four clusters.</p> | <p>Quantitative, qualitative, and survey-based data are used. Data sources include World Bank, IMF, WTO, International Country Risk Guide, Heritage Foundation, UNICEF, WHO, and many others.</p> |

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| <p>Center for Systemic Peace / University of Colorado / University of Maryland</p> <p>Polity IV Project</p> <p>Every year / 2009</p> | <p>Assess regime authority characteristics of states around the world and monitor regime changes over time.</p> | <p>163 developing and developed countries (independent states with total population of 500,000 or more in the most recent year) over the period 1800-2009.</p> | <p>The Polity score is constructed on the basis of two composite indicators: indicators of democracy and indicators autocracy. These, on their turn, rely on three indicators: executive recruitment, independence of executive authority, political competition and opposition.</p> | <p>The indicators of democracy and autocracy are derived from the coded values of the authority characteristics component variables. These are classified as executive recruitment, independence of executive authority, political competition and opposition. The qualities of executive recruitment are measured looking at regulation of chief executive recruitment, competitiveness of executive recruitment, and openness of executive recruitment; constraints on executive authority are measured looking at decision rules; and political competition and opposition is measured by regulation of participation and the competitiveness of participation. The Polity score is derived simply by subtracting the value of the autocracy indicator from the value of the democracy indicator. This provides a single regime score from +10 (full democracy) to -10 (full autocracy). The Polity score can also be converted to regime categories according to a three-part categorization of "autocracies" (-10 to -6), "anocracies" (-5 to +5 and the three special values: -66, -77, and -88), and "democracies" (+6 to +10).</p> | <p>Qualitative data.</p> |

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| <p>World Bank</p> <p>Performance Logistics Index (PLI)</p> <p>yearly release</p> | <p>Improving logistics performance has become an important development policy objective. The performance of customs, trade related infrastructure, inland transport, logistics services information efficiency and port efficiency are all critical to whether countries can trade goods and services on trade and low cost. International logistics encompasses an array of actions ranging from from transportation, consolidation of cargo, warehousing, and border clearance to in-country distribution and payment systems. This sequence cannot be easily summarized in a single indicator. To address this the World Bank has produced the first LPI to start closing the knowledge gap and help countries develop logistics reforms programs.</p> | <p>150 rich, emerging and developing countries</p> | <p>1) Efficiency 2) quality of technology and ITC for infrastructure 3) lease and affordability of arranging international shipments 4) Competence of the local logistics industry 5) ability to track and trace international shipments 6) domestic logistics costs 7) timeliness of shipments in reaching destination. To each component a score 1 - 5 is assigned by experts.</p> | <p>The composite LPI index is constructed by combining the seven sub indices using the principal component analysis.</p> | <p>Web based questionnaire completed by more than 800 logistics professionals worldwide-the operators or agents of the world's largest logistics services providers. Each respondent was asked to rate performance in seven logistics areas with which they conduct business. For each respondent the eight countries were automatically generated by the survey engine based on trade flows, income level, geographical position of respondent countries and random selection.</p> |

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| World Bank Human Development Index Yearly release | The Human development index is a composite statistic used to rank countries by level of human development. The aim of this index is to shift the focus of policies from national income accounting to people centered policies. | Iraq, North Korea, Taiwan, Monaco, San Marino, Vatican City, Fiji, Kiribati, Marshall Islands, Federal States of Micronesia, Nauru, Palau, Tuvalu are the only countries for which this index is not calculated. | The statistic is composed from data on life expectancy, education and per capita GDP | Data are standardized to obtain free - unit variables. Aggregation of GDP, education and life expectancy indicators is then obtained on the basis of equal weights. | World Bank (secondary data) |

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| <p>World Economic Forum</p> <p>Global competitiveness index</p> <p>Yearly release</p> | <p>Measure competitiveness of countries defined by WEF as “the set of institutions, policies, and factors that determine the level of productivity of a country”. WEF claims that the indicators should help policy makers to implement “competitiveness-enhancing efforts aimed at improving the potential for growth in the medium to longer run”.</p> | <p>139 developing, emerging and developing countries (Global Competitiveness Report 2010 – 2011).</p> | <p>Indicators are organized as “basic requirements”, “efficiency enhancers” and “innovation drivers”. Basic requirements are represented by private and public institutions, infrastructure, macroeconomic environment and health/primary education pillars. Efficiency enhancers are represented by education, goods market efficiency, labour market efficiency, financial market development, technological readiness and market size pillars. Innovation drivers are governed by business sophistication factors and innovation factors pillars</p> | <p>To calculate the aggregated WEF index, weights for groups of indicators are different for poor, emerging and rich countries. For poor countries the highest weight is associated to “basic requirement indicators”, for emerging countries the highest weight is associated to “efficiency enhancers” and for rich countries the highest weight is associated to “innovation drivers”. This choice is made according to the assumption that different indicators are more or less important according to the country stage of development and weights are estimated according to a linear regression between GDP per capita and indicators. The weight of pillars within each category (“Basic requirements”, “Efficiency enhancers” and “innovation drivers” are exogenously decided by WEF.</p> | <p>Data sources are “international organisations and national sources and a global firms survey”. Data from the Global firms survey are collected through a survey to firms over the world and are organized according to a scale 1 – 7. Data from international organisations and national sources are transformed in a scale 1 – 7 to be comparable with data from the Survey.</p> |

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| <p>UNCTAD</p> <p>Innovation capability index</p> <p>Yearly release</p> | <p>A measure to express “the capability of countries to connect with global networks of knowledge creation as well as to attract and benefit from R&D”.</p> | <p>117 rich, emerging and poor countries</p> | <p>It is composed of a technology activity index and a human capital index (both with equal weight). The technology activity index includes R&D personnel, patents and scientific publications (with equal weight), the human capital index includes primary (weight 1), secondary (weight 2) and tertiary (weight 3) education indicators.</p> | <p>This index is constructed through a simple weighting procedure</p> | <p>Data from international and national organisations.</p> |

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| <p>UNDP</p> <p>Technology achievement index</p> <p>Yearly release</p> | <p>“Technology achievement index (TAI), [...] aims to capture how well a country is creating and diffusing technology and building a human skill base—reflecting capacity to participate in the technological innovations of the network age. This composite index measures achievements, not potential, effort or inputs. It is not a measure of which country is leading in global technology development, but focuses on how well the country as a whole is participating in creating and using technology”</p> | <p>72 rich, emerging and poor countries (World Development Report 2001)</p> | <p>4 components for this index. Creation of technology (number of granted patents per capita, receipts of royalties and fees from abroad). Diffusion of recent innovations (Internet diffusion and share of medium – high technology products as a share of all exports), diffusion of old innovation (telephone and electricity), human skills (mean years of schooling and gross enrolment ratio of tertiary students).</p> | <p>All indicators have equal weight.</p> | <p>The data used to construct the TAI are from international series that are the most widely used in analyses of technology trends, and so are considered the most reliable of available sets, as shown below. The range of appropriate indicators is limited to those with reasonable coverage. Limitations in data series must be taken into account in interpreting TAI values and rankings. Some countries will have undervalued innovations because patent records and royalty payments are the only systematically collected data on technological innovation and leave out valuable but non-commercialized innovations such as those occurring in the informal sector and in indigenous knowledge systems. Moreover, national systems and traditions differ in scope and criteria. High numbers of patents may reflect liberal intellectual property systems. Diffusion of new technologies may be understated in many developing countries. Internet access is measured by Internet hosts because these data are more reliable and have better coverage than Internet user data at the country level.</p> |

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| <p>UNIDO</p> <p>Competitive industrial performance index</p> <p>Yearly release</p> | <p>“The CIPI measures respectively, the capability, and capacity, of countries to produce and export competitively, and helps assess national industrial performance in the global economy”</p> | <p>99 rich, emerging and poor countries.</p> | <p>The UNIDO CPI index is composed of 6 indicators: manufacturing value added per capita, manufactured exports per capita, share of manufacturing value added in GDP, share of medium and high tech value added in total factor manufacturing value added, share of manufactured exports in total exports, share of medium and high tech exports in manufactured exports</p> | <p>The arithmetic mean between the share of manufacturing value added in GDP and the share of medium and high tech value added in total factor manufacturing value added represents the industrialisation intensity index. The arithmetic mean between the share of manufactured exports in total exports and the share between medium high tech exports in manufactured exports represents the manufacturing export quality index. The arithmetic mean between the industrialisation intensity index and the manufacturing value added per capita represents the TAC index expressing the capability of a country to innovate and to transform raw materials. The arithmetic mean between manufacturing export quality index and the manufacturing value added in GDP represents the TFC index expressing the capability of a country to transact with other countries.</p> | <p>UNIDO data</p> |

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| <p>World Bank</p> <p>Ease of doing business</p> <p>Yearly release</p> | <p>“In the past two years, more than 26 reforms have been inspired or influenced by the Doing Business project. Brazil, Bulgaria, China, El Salvador, Ethiopia, Indonesia, Peru, Serbia and Montenegro and Yemen have eased business entry. Jordan and Serbia and Montenegro have improved the efficiency of contract enforcement. Afghanistan and Russia have established credit registries. Georgia and Poland have reduced the number and complexity of business licenses. Some of these and other reforms were the result of governments wanting to improve their rank on the ease of doing business.¹ Georgia, currently ranked 100, wants to join the top-30 list. Reforms are underway in making labor regulations more flexible, customs procedures faster, and business entry cheaper. Saudi Arabia and Thailand have targeted the top-10 list, with several administrative reforms planned. Algeria, Burkina Faso, Malawi, Mali, Morocco, São Tomé and Príncipe have all requested advice on how to improve their standings. This illustrates the main advantage of showing a single rank: it is easily understood by politicians, journalists and development experts and therefore creates pressure to reform. As in sports, once you start keeping score everyone wants to win. A second advantage of having a single ranking is the ability to see patterns in business regulation. For example, Nordic countries perform best as a group in the list of countries where it is easiest to do business (table 1), while the three Baltic countries—where reform started less than a decade ago—have had the most ambitious reforms. Six East Asian economies make the top-30 list, more than any other region outside Europe. The third reason is to measure reform impact. Politicians want to know the payoff from reform”</p> | <p>155 rich, emerging and poor countries</p> | <p>Components are “Starting a business”, “Dealing with licences”, “hiring and firing”, “registering and property”, “getting credit”, “protecting investors, paying taxes, “trading”, “enforcing contracts”, “closing a business”</p> | <p>The index is calculated as the ranking on the simple average of country percentile rankings on each of the 10 topics covered in Doing Business in 2006. The ranking on each topic is the simple average of the percentile rankings on its component indicators</p> | <p>The index is based on the study of laws and regulations, with the input and verification by more than 8,000 government officials, lawyers, business consultants, accountants and other professionals economies who routinely advise on or administer legal and regulatory requirements</p> |

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| <p>No specific institution</p> <p>Herfindahal index</p> <p>Release depending on policy and academic studies</p> | <p>The Herfindahl index, also known as Herfindahl-Hirschman Index or HHI, is a measure of the size of firms in relation to the industry and an indicator of the amount of competition among them</p> | <p>Depending on specific policy and academic studies</p> | <p>Market shares</p> | <p>Named after economists Orris C. Herfindahl and Albert O. Hirschman, it is an economic concept widely applied in competition law, antitrust and also technology management. It is defined as the sum of the squares of the market shares of the 50 largest firms (or summed over all the firms if there are fewer than 50)[3] within the industry, where the market shares are expressed as fractions. The result is proportional to the average market share, weighted by market share. As such, it can range from 0 to 1.0, moving from a huge number of very small firms to a single monopolistic producer</p> | <p>Secondary data (UNIDO. World bank etc.)</p> |
| <p>Chinn and Ito (2002)</p> <p>Capital control index</p> <p>Project specific release</p> | <p>The implementation of a tool that is useful to investigate the relationship between capital control and financial development of credit and equity markets</p> | <p>105 rich, poor and emerging countries</p> | <p>Components are multiple exchange rates, capital account restrictions, current account restrictions and on the surrender of export proceeds.</p> | <p>The index is a first standardized principal component of the different index components</p> | <p>Secondary sources (IMF, World Bank...)</p> |

TRADE INDICATORS

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| <p>World Economic Forum</p> <p>Enabling trade Index (ETI)</p> <p>Yearly release</p> | <p>ETI is a comprehensive index that measures the factors, policies and services facilitating the free flow of goods over borders and to destination</p> | <p>118 rich, emerging and developing countries</p> | <p>ETI is composed of 4 sub indices: 1) the market access sub index, 2) the border administration sub index, 3) the transport and communication infrastructure sub index 4) the business - environment sub index. These sub indices are in turn composed of the 10 pillars of the ETI: 1) tariff and non tariff barriers 2) proclivity to trade 3) efficiency of customs administration 4) efficiency of import - export procedures 5) transparency of border administration 6) availability and quality of border infrastructure 7) availability and quality of transport services, 8) availability and use of ICTs, 9) regulatory environment, 10) physical security.</p> | <p>Each of the pillars has been calculated as an unweighted average of the individual components variables. The sub indices are then calculated as unweighted averages of the included pillars. The overall ETI is then the unweighted average of the four sub indexes.</p> | <p>The Survey data are mainly derived from the responses of the World Economic Forum's Executive Opinion Survey and range from 1 to 7. Survey data from the World Bank's Logistics Performance Index have also been included; the hard data were collected from various sources. The hard data indicators used in the ETI as well as the results from the LPI survey are normalized to a 1 - 7 scale in order to align them with the Executive Opinion Survey's results.</p> |
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TRADE INDICATORS

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| <p>ITC</p> <p>Trade performance index</p> <p>Yearly release</p> | <p>ITC developed the Trade Performance Index (TPI) with the aim of assessing and monitoring the multi-faceted dimensions of export performance and competitiveness by sector and by county</p> | <p>184 rich, emerging and poor countries, 14 sectors. Document prepared by the ITC market analysis section 2000.</p> | <p>ITC describes the general export position of countries by 8 indicators expressing a general profile. These indicators are value of exports, trends in net exports, share in national exports, share in national imports, change in per capita exports, relative unit value, change in relative unit value and comparative advantage. In addition to a general profile, the TPI ranks countries for each indicator according to two criteria: the position, which is essentially a “snapshot” of a country’s performance at a given point of time, and the evolution of export performance over a given time period (5 years). The TPI positions the export sectors of member countries by export competitiveness, both from a static and dynamic perspective. Position indices include value of net exports, per capita exports, world market shares, diversification indices. Evolution indices include change in world market shares, trend of the coverage of imports by exports, matching with the dynamics of world demand, diversification indices variations.</p> | <p>The final ranking is a weighted average of the individual rankings for each of the different indices. The improvement in the ranking reflects improvements in its trade performance</p> | <p>COMTRADE, United Nations Statistics Division</p> |
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TRADE INDICATORS

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| <p>World Bank</p> <p>Trade indicators</p> <p>Yearly release</p> | <p>The World Trade Indicators 2009/10 is a wide-ranging database and innovative ranking tool designed to benchmark trade policy and performance. First launched by World Bank Institute in June 2008, and updated in January 2009, the database contains a broad set of trade indicators for 211 countries and territories to help policy makers, advisors and analysts identify border and behind-the-border constraints to trade integration. The database is organized around five thematic categories or pillars, namely (i) Trade Policy, (ii) External Environment, (iii) Institutional Environment, (iv) Trade Facilitation, and (v) Trade Outcome.</p> <p>Each pillar contains a main (default) indicator, and is further divided into sub-categories. Indicators may be viewed as ranks or values. Country performance may be examined individually as well as in relation to other countries or country grouping, (by region, income group, trade agreement or other user-defined group). The expanded database contains 500 annual and quarterly variables, which span the period 1995-2009, based on availability. Data descriptions, availability and sources are posted in the User Guide to Trade Data.</p> <p>The World Trade Indicators 2009/10 database is complemented by:</p> <ul style="list-style-type: none"> an analytical overview report of trade outcomes and policy responses during a tumultuous period for global trade country-level trade briefs which summarize insights from the database as well as analyze national impacts of and responses to the food crisis and global recession user-friendly Trade-at-a-Glance (TAAG) tables of all countries which provide a snapshot of key aspects of trade policy and performance | <p>211 rich, emerging and poor countries</p> | <p>Trade policy, external environment, institutional environment, trade facilitation, trade outcome</p> | <p>No aggregation issues for this set of indices</p> | <p>Data come from the Development Economic Research group, Development Economics data group, Development Economics Prospects Group</p> |
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ENVIRONMENTAL INDICATORS

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| <p>Environmental Vulnerability index Briguglio et al. (1999) Project specific</p> | <p>Specific aims of the work are: 1) review work addressing vulnerability of SIDS 2) build on past work on environmental vulnerability 3) Identify variables which may be used in the construction of an environmentally descriptive vulnerability index 4) develop a logical framework for calculating an index of environmental vulnerability. 15 studies were reviewed to examine the relative vulnerability of states in terms of risks to human and natural systems. Most of the studies were concerned with risks to human economic and social systems while only five attempted to describe effects on the natural environment. The risks of concern also varied among studies. Anthropogenic risks were considered in 11 studies; 6 studies examined climate change and sea level rise and 6 studies considered natural disasters as part of their risk. Only 1 study specifically examined the effects of both humans and natural hazards on the environment. The object of the study is to fill the gap.</p> | <p>3 countries: Tuvalu, Australia, Fiji.</p> | <p>Three aspects of environmental vulnerability were identified which would need to be incorporated into an EVI: 1) the level of risks (REI) which act on the environment within the state forming the Risk Exposure Sub Index, which examines the frequency and where possible the intensity of risk events which may affect the environment. 2) Intrinsic vulnerability or resilience of the environment to risks forming the Intrinsic Resilience Sub Index (IRI) which refers to characteristics of a country which would tend to make it less/more able to cope with natural and anthropogenic hazards; 3) extrinsic vulnerability or resilience as a result of external forces acting on the environment, forming the Environmental Degradation Sub Index which describes the ecological integrity or level of degradation of ecosystems.</p> | <p>For the purpose of EVI the following definitions were used: 1) an indicator was defined as any variable which characterizes the level of risk, resilience or environmental degradation 2) a sub index (REI, IRI, EDI) was defined as an aggregated average of the score for indicators which related separately to risk, resilience or degradation; 3) an index was defined as an aggregated average of each of the three sub - indices (REI, IRI, EDI) to give an overall measure of the environmental vulnerability of a state. The criteria for the selection of indicators was that they should be applicable over the entire scale of interest (countries, regions), spread over different geographic, habitat and climatic types, relatively easy to understand, well defined, have data limited now or with assistance in the future and be as uncorrelated as possible (to limit redundancy). A total of 57 indicators were selected for inclusion in the EVI. 39 REI indicators, 5 IRI indicators, 13 EDI indicators. To deal with heterogeneity it was necessary to map the possible responses to the variables onto a 0 - 7 scale. Six of the 57 indicators were assigned an intrinsic weighting factor of 5, while the remaining indicators were given the default weighting of 1. To ensure that EVI, REI, scores remained between the values 0 - 7, it was necessary to adjust the weighting factors.</p> | <p>Data were taken from technical literature or by consultation.</p> |
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| ENVIRONMENTAL INDICATORS | | | | | |
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| <p>Moss et al. (2001)</p> <p>Vulnerability resilience indicator</p> <p>Project specific</p> | <p>To meet the challenges identified by IPCC we have constructed a prototype computer based methodology for assessing vulnerability and resilience to climate change given present circumstances and for three alternative scenarios of the future.</p> | <p>38 rich, emerging and poor countries. Just a few poor countries (Bangladesh, Nigeria).</p> | <p>The index is composed of sensitivity indicators and adaptability indicators. Sensitivity represents the vulnerability of a system to climate change. Adaptability is the the extent to which changes are possible to take advantage of the new conditions. Sensitivity and adaptability indicators are divided in different sector. Sensitivity sectors are settlement, food, ecosystems, health, water. Adaptability sectors are economics, human resources and environment. For each sector there are specific proxy indicators.</p> | <p>For step 1 data are collected for the proxies for the year 1990 representing the baseline year for the calculation for 38 countries and the world. For step 2 proxies are scaled against a) 1990 world data set to 100 and b) 1990 USA data set to 100. Step 3 consists of calculating as a geometric means of indexed proxies. Geometric means of sectoral indices become sensitivity and adaptability indices. A simple difference between the sensitivity index and the adaptability index is the vulnerability-resilience indicator.</p> | <p>Data are taken from projections deriving from integrated assessment models.</p> |

| STATE BUSINESS RELATIONSHIPS INDICATORS | | | | | |
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| <p>Kuhnal and te Velde (2007)</p> <p>SBR index</p> <p>Project specific</p> | <p>Testing the effect of state business relationships on growth</p> | <p>20 African countries over the period 1980 - 2004</p> | <p>1) the way in which the private sector is organized vis a vis the the public sector 2) the way in which the public sector is oeganized vis a vis the private sector 3) the practice and institutionalisation of SBRs 4) the avoidance of harmful collusive behaviours</p> | <p>Average of the four indicators with the same weight.</p> | <p>Polity IV project hosted by the Centre for International Development and Conflict Management in the University of Maryland and Country Risk Guide published by Political Risk Services.</p> |