Guide to understanding the KILM

The history of the KILM

Any organization, institution or government that advocates labour-related strategies needs relevant data in order to monitor and assess the current realities of the world of work. In recognition of this, the International Labour Office (ILO) launched the Key Indicators of the Labour Market (KILM) programme in 1999 to complement its regular data collection programmes and to improve dissemination of data on the key elements of the world's labour markets (for the various statistical activities carried out by the ILO, see box 1a).

The KILM was originally designed with two primary objectives in mind: (1) to present a core set of labour market indicators; and (2) to improve the availability of the indicators to monitor new employment trends. The selection of the indicators was based on the following criteria: (a) conceptual relevance; (b) data availability; and (c) relative comparability across countries and regions. Since the first edition, the design and presentation of the core indicators have gradually evolved.

The role of the KILM in labour market analysis

Sound evidence-based policy-making relies on identifying and quantifying not only best practices in the labour market but also inefficiencies – such as labour underutilization and decent work deficits. This is the first step in designing employment policies aimed at enhancing the well-being of workers while also promoting economic growth. This broad view of the world of work calls for comprehensive collection, organization and analysis of labour market information. In this context, the KILM can serve as a tool in monitoring and assessing many of the pertinent issues related to the functioning of labour markets. The following are some examples of how the KILM can be used to inform policy in key areas of ILO research.

Promoting the ILO's Decent Work Agenda

The ILO's Decent Work Agenda aims to promote opportunities for women and men to obtain productive work, in conditions of freedom, equity, security and human dignity.[1] As a growing number of governments, employers and workers investigate options for designing policies that adhere to the principles of decent work, it falls to policy-makers to interpret the term "decent". Perceptions of what constitutes a decent job or a decent wage are likely to differ, depending on national circumstances, the political views of policy-makers and each individual's position in relation to the labour market. There are, however, certain conditions relating to the world of work that are almost universally accepted as "bad" – for example, working but earning an income that does not lift one above the poverty line, or working under conditions where the fundamental principles and rights at work[2] are not respected.

[1] Since the publication of the Director-General's report at the 1999 International Labour Conference (ILO, 1999), the goal of "decent work" has come to represent the central mandate of the ILO, bringing together labour standards, fundamental principles and rights at work, employment, social protection and social dialogue in the formulation of policies and programmes aimed at "securing decent work for women and men everywhere".

[2] The ILO Declaration on Fundamental Principles and Rights at Work aims to ensure that social progress goes hand in hand with economic progress and development. See http://www.ilo.org/declaration for more information.

Box 1a. Labour market statistics at the ILO

Statistical activities have always formed an integral part of the work of the International Labour Organization, as witnessed by the setting up in 1919 of a Statistical Section for "the collection and distribution of information on all subjects relating to the international adjustment of conditions of industrial life and labour" (Article 396 of the Versailles Treaty of Peace and article 10(1) of the Constitution of the ILO). Since its inception, the ILO has endeavoured to carry out its mandate in an ever-changing world. Key statistical functions are performed by the ILO's Department of Statistics, the focal point for labour statistics in the United Nations (UN) system. Formerly a Bureau, the Department of Statistics – established in 2009 – is responsible for enhancing data compilation, increasing support to countries and constituents to produce, collect and use more timely and accurate labour and decent work statistics, coordinating and assessing the quality of ILO statistical activities, setting international statistical standards (by hosting the International Conference of Labour Statisticians and providing guidelines and support) and enhancing capacity building in labour and decent work statistics.

For a very long time, a key publication in disseminating labour market statistics was the ILO *Yearbook of Labour Statistics*, first issued in 1935. It contained time series data on a wide range of topics related to the labour market, which changed over time to reflect current interests and developments. The topics covered have included employment, unemployment, hours of work, wages, costs of living and retail prices, workers' family budgets, emigration and immigration, occupational injuries and industrial relations. Monthly or quarterly updates of the series published in the *Yearbook* were first issued in the *International Labour Review* and its statistical supplement, and from 1965 in the quarterly *Bulletin of Labour Statistics* and its supplement. The *Bulletin* also contained short articles on statistical practices and methods, and presentations of the results of special projects carried out by the Department of Statistics.

In 2010 the Department of Statistics embarked on a comprehensive revision of the procedures used to compile, store and disseminate data, with a view to satisfying the needs of all types of users of labour market statistics to a fuller extent and in a timelier manner. As a result of this exercise, the printed publications of the *Yearbook of Labour Statistics* and the *Bulletin* were discontinued and replaced with ILOSTAT, a continuously updated online database containing annual and short-term statistics. ILOSTAT, available at www.ilo.org/ilostat, also includes datasets on specific labour-related topics (such as labour migration and social security) and all the relevant methodological information, including concepts and definitions, classifications and metadata on the national statistical sources used. The active identification of gaps in the information helps to inform the technical support the ILO offers to countries. The main focus is on establishing ILOSTAT as a coordinated and closely monitored database that presents timely and accurate official figures. The inclusion of short-term data from 2010 has enabled the ILO to better monitor the employment situation across countries without having to wait for annual data, improving its capacity to report to important bodies and events such as the G20 and regional meetings.

The Key Indicators of the Labour Market (KILM) complements this effort by providing consistent and comparable labour market information. The KILM differs from ILOSTAT's yearly indicators in terms of scope and content. Whereas the yearly indicators are the best source of nationally reported labour statistics, and notwithstanding intensified efforts to obtain comparable data following the ILO's preferred concepts and definitions, the KILM has more freedom to enhance the comparability of series across time and countries, given that it is not restricted to using the national data *as reported*. In the case of indicators that cannot be streamlined and remain not strictly comparable, efforts have been made to select sources and methodologies that provide series that are as "clean" and comparable as possible; and where anomalies exist in terms of definitions and methodologies, these are clearly specified in the table notes. Finally, some indicators are provided in both the yearly indicators and the KILM; however, the full lists of indicators in each are not identical. For example, labour productivity is included in the KILM, but not in the yearly indicators, whereas the yearly indicators report data on strikes and lockouts and occupational injuries, while the KILM does not.

Given that policy formulation should always be preceded by careful empirical research and quantitative assessments of the realities of the world of work, the KILM, as a collection of a broad range of labour market indicators, can serve as a tool in addressing many of the pertinent questions

relating to the ILO's Decent Work Agenda.

The KILM helps to identify where labour is underutilized and decent work is lacking, not only in terms of people who are working yet still unable to lift themselves and their families above the poverty threshold (KILM 17) but also in terms of poor quality of work or the lack of any work at all. The lack of any work can be identified using unemployment (KILMs 9 and 10) but also more broadly using inactivity (KILM 13). Poor quality of work can be assessed using a combination of indicators: for example, by identifying which individuals are in vulnerable employment (using status and sector – KILMs 3 and 4), working excessive hours (KILM 7), working in the informal economy (KILM 8), underemployed (KILM 12) or working in low-productivity jobs (KILM 16).

Monitoring progress towards the UN's Millennium Development Goals and Sustainable Development Goals

The UN resolved to make the goals of full and productive employment and decent work for all a central objective of both its national and international policies and its national development strategies as part of its efforts to achieve the Millennium Development Goals (MDGs).[3] Recognizing that decent and productive work for all is central to addressing poverty and hunger, MDG 1 includes a target 1b (agreed upon in 2008) to "achieve full and decent employment for all, including women and young people". The four indicators selected at the time for monitoring progress towards MDG target 1b are available within the KILM: (1) employment-to-population ratio (KILM 2), (2) the proportion of employed people living below the poverty line (working poverty rate: KILM 17), (3) the proportion of own-account and contributing family workers in total employment (vulnerable employment rate: KILM 3) and (4) the growth rate of labour productivity (KILM 16).[4]

With the MDGs concluding in 2015, a series of 17 Sustainable Development Goals (SDGs) has been agreed upon to succeed them.[5] Within the context of the SDGs, the quest for full and decent employment for all has been given new prominence, the eighth goal being to "promote inclusive and sustainable economic growth, employment and decent work for all". The KILM presents statistics for several of the indicators currently proposed for measuring progress towards the eighth SDG, namely GDP per capita and GDP growth, the share of informal employment in non-agricultural employment, the employment-to-population ratio, the unemployment rate, the youth unemployment rate, and the share of youth not in education, employment or training: these correspond to KILM tables A1, 8, 2b, 9b, 10b and 10c, respectively.[6] Furthermore, the KILM also provides valuable information on indicators relevant to monitoring other SDGs linked to employment and the labour market, such as the

[3] See UN, 2005, para. 47. As part of the Millennium Declaration of the United Nations "to create an environment – at the national and global levels alike – which is conducive to development and the elimination of poverty", the international community adopted a set of international goals for reducing income poverty and improving human development. A framework of eight goals, 18 targets and 48 indicators to measure progress was adopted by a group of experts from the UN Secretariat, ILO, International Monetary Fund (IMF), Organisation for Economic Co-operation and Development (OECD) and World Bank. The indicators are interrelated and represent a partnership between developed and developing economies. For further information on the MDGs, see http://www.un.org/millenniumgoals.

[4] KILM, 6th edn (ILO, 2009), Ch. 1, section C offered a demonstration of how to put all four MDG employment indicators together to arrive at a basic analysis of progress at the country level. KILM, 7th edn (ILO, 2011), Ch. 1, section A presented insights into working poverty in the world and introduced new estimates on working poverty. See also Sparreboom and Albee, eds, 2011.

[5] During the UN Sustainable Development Summit held on 25–27 September 2015 in New York and convened as a high-level plenary meeting of the General Assembly, world leaders, businesses and civil society groups gathered to discuss issues relevant to the new development agenda, such as poverty, hunger, inequality and climate change. The summit resulted in the adoption of an ambitious new sustainable development agenda, and a set of 17 Sustainable Development Goals. The full list of SDGs and their corresponding targets is available at http://www.un.org/sustainabledevelopment/sustainable-development-goals/.

[6] The latest list of indicator proposals available at this time (first disseminated 11 Aug. 2015) can be found at http://unstats.un.org/sdgs/files/List%20of%20Indicator%20Proposals%2011-8-2015.pdf.

statistics on poverty and income distribution contained in KILM table 18a, which can be used to measure progress towards the first SDG, to "end poverty in all its forms everywhere".

Monitoring equity in the labour market

Women face specific challenges in attaining decent work. The majority of KILM indicators are disaggregated by sex, allowing for comparison of male and female labour market opportunities. Many of the "trends" analyses associated with individual indicators focus on the progress (or lack thereof) towards the goal of equal opportunity and equal treatment in the labour market.[7]

Assessing employment in a globalizing world

Globalization has the potential of being beneficial to all, but to date the benefits are not reaching enough people. The goal, therefore, is to embrace globalization but in a way that shapes it to encourage creation of decent work opportunities for all (WCSDG, 2004). One means of doing so is to make employment a central objective of macroeconomic and social policies. The KILM indicators can be useful in this regard by enabling the employment dynamics associated with globalization to be monitored. For example, there are studies indicating that globalization has impacts on job loss and creation and on changes in wages and productivity (and thus in international competitiveness). If the indicators reflect negative consequences of globalization, ways can be sought of altering macroeconomic policies so as to minimize the costs of adjustment and to distribute the gains of globalization in a more equitable fashion.

Identifying "best practices"

The KILM can help to identify best-practice country examples on a number of issues: where the occupational gender wage gap is non-existent or minimal; where young people do not face disadvantages in access to jobs; where labour productivity and labour compensation are balanced in such a way as to encourage international competitiveness; where economic growth has gone hand in hand with an expansion of employment opportunities; where a country reduces high unemployment; and many others. The key in each case is to identify policies that have led to the positive labour market outcome and to highlight these as possible best practices which could be implemented elsewhere.

Labour market analyses using multiple KILM indicators

More and more countries are producing national unemployment and aggregate employment data. Nevertheless, caution is required in the interpretation of such statistics, given their limitations if used in isolation, and users are urged to take a broader view of labour market developments, combining a range of statistics. The advantage of using aggregate unemployment rates, for example, is their relative ease of collection and comparability for a significant number of countries. But unemployment is only one aspect of labour market status, and to look at this (or any other labour market indicator) alone is to ignore other elements of the labour market that are no less significant for being more difficult to quantify.

[7] For a guide on using KILM indicators to assess gender equality, see ILO, 2010.

The first step in labour market analysis, therefore, is to determine the breakdown of labour force status within the population.[8] According to the definitions established in the resolution concerning statistics of work, employment and labour underutilization adopted by the 19th International Conference of Labour Statisticians in 2013 (ILO, 2013), the working-age population can be broken down into persons outside the labour force (formerly known as inactive: KILM 13), employed (KILM 2) or unemployed (not working and seeking work: KILMs 9 and 10). A large share of the population either in unemployment or outside the labour force, or both, indicates substantial underutilization of the potential labour force and thus of the economic potential of a country. Governments facing this situation should, if possible, seek to analyse the reasons for inactivity, which in turn could indicate the policy choices necessary to redress the situation.

For example, if the majority of the population outside the labour force is made up of women who are not working because they have household responsibilities, the State might wish to encourage an environment that facilitates female economic participation through such measures as the establishment of day-care centres for children or flexible working hours. Alternatively, if disability is a common reason for staying outside the labour force, programmes to promote the employment of the disabled could help to lower the inactivity rate. It is more difficult to recapture persons who have left the labour market because they are "discouraged", that is, because they feel that no suitable work is available or that they do not have the proper qualifications, or because they do not know where to look for work; however, it may be possible to boost their confidence through participation in training programmes and jobsearch assistance. In any particular national context, the correct mix of policies can only be designed by looking in detail at the reasons for inactivity.

Unemployment itself should be analysed according to sex (KILM 9), age (KILM 10), length (KILM 11) and educational attainment (KILM 14) in order to gain a better understanding of the composition of the jobless population and therefore to target unemployment policies appropriately. Other characteristics of the unemployed not shown in the KILM, such as socio-economic background, work experience etc., could also be significant, and should be analysed, if available, in order to determine which groups face particular hardships. Paradoxically, low unemployment rates may well disguise substantial poverty in a country (see KILM 17), whereas high unemployment rates can occur in countries with significant economic development and low incidence of poverty. In countries without a safety net of unemployment insurance and welfare benefits, many individuals, despite strong family solidarity, simply cannot afford to be unemployed. Instead, they must eke out a living as best they can, often in the informal economy or in informal work arrangements within the formal economy. In countries with well-developed social protection schemes or when savings or other means of support are available, workers can better afford to take the time to find more desirable jobs. Therefore, the problem in many developing economies is not so much unemployment as rather the lack of decent and productive work opportunities for those who are employed.

This brings us to the need to dissect the total employment number as well in order to assess the well-being of the working population, on the premise that not all work is "decent work". If the working population consists largely of own-account workers or contributing (unpaid) family workers (see KILM 3), then the indicator on the total employed population (KILM 2) loses its value as a normative measure. Are these people employed? Yes, according to the international definition. Are they in decent employment? Possibly not. Although technically employed, some self-employed workers' or contributing family workers' hold on employment is tenuous, and the line between employment and unemployment is often thin. If and when salaried jobs open up in the formal economy, this contingent workforce will rush to apply for them. Further assessment should also be undertaken to determine whether such workers are generally poor (KILM 17b), engaged in traditional

[8] For a specific country example of how to analyse labour markets using the KILM indicators, see ILO, 2011, Ch. 1, section C; ILO, 2007, Appendix F.

agricultural activities (KILM 4), selling goods in the informal market with no job security (KILM 8), working excessive hours (KILM 7a) or wanting to work more hours (KILM 12).

In an ideal world, the analysis of labour markets using a broad range of indicators such as those available in the KILM would be an easy matter because the data for each indicator would exist for each country. The reality, of course, is quite different. Despite recent improvements in national statistics programmes and in the efficiency of collection on the part of the KILM, a closer look at the availability of KILM data for each country shows that many holes still exist where data are not available.

The coverage of KILM indicators is particularly low in African countries, which is understandable given the low priority that is likely to be placed on conducting labour force surveys in countries beset by poverty and political unrest. The paradox is that this is precisely the region where greater labour market information is needed to inform both the allocation of scarce funds and the creation of appropriately targeted national policies to help people "work out of poverty".[9] Development of national statistical programmes is desperately needed in many developing economies. Therefore, we urge donors to consider providing aid in improving statistical capacity building a suitable and important use of funds, and also to encourage governments to place priority on the development of statistical programmes.

KILM organization and coverage

The Statistics Division of the UN compiles statistics for approximately 230 countries, areas and territories.[10] For each edition of the KILM, the ILO has made an intensive effort to assemble data on the indicators for as many countries, areas and territories as possible. Where there is no information for a country, it is usually because that country was not in a position to provide information for that indicator, or because such information as was available was not sufficiently current or did not meet other qualifications established for inclusion in the KILM.

The KILM groups countries in two different ways: geographically, distinguishing countries by region and subregion (broad and detailed); and according to per capita income, on the basis of the World Bank's classification by income group. There are five main geographical groupings: (1) Africa; (2) Americas; (3) Arab States; (4) Asia and the Pacific; and (5) Europe and Central Asia. These are further divided into 11 corresponding broad subregions – (1.1) Northern Africa; (1.2) Sub-Saharan Africa; (2.1) Latin America and the Caribbean; (2.2) Northern America; (3.1) Arab States; (4.1) Eastern Asia; (4.2) South-Eastern Asia and the Pacific; (4.3) Southern Asia; (5.1) Northern, Southern and Western Europe; (5.2) Eastern Europe; and (5.3) Central and Western Asia – and 20 corresponding detailed subregions: (1.1.1) Northern Africa; (1.2.1) Central Africa; (1.2.2) Eastern Africa; (1.2.3) Southern Africa; (1.2.4) Western Africa; (2.1.1) Caribbean; (2.1.2) Central America; (2.1.3) South America; (2.2.1) Northern America; (3.1.1) Arab States; (4.1.1) Eastern Asia; (4.2.1) South-Eastern Asia; (4.2.2) Pacific Islands; (4.3.1) Southern Asia; (5.1.1) Northern Europe; (5.1.2) Southern Europe; (5.1.3) Western Europe; (5.2.1) Eastern Europe; (5.3.1) Central Asia; and (5.3.2) Western Asia. There are four income groupings: (1) high income countries; (2) upper middle income countries; (3) lower middle income countries; and (4) low income countries.

[9] The ILO strongly advocates placing employment at the heart of poverty reduction strategies, noting, in particular, that "it is precisely the world of work that holds the key for solid, progressive and long-lasting eradication of poverty" (ILO, 2003).

[10] UN Statistics Division, "Countries or areas, codes and abbreviations", available at http://unstats.un.org/unsd/methods/m49/m49alpha.htm.

In the KILM database, indicators are available for all years since 1980 and data are updated annually. The ILO makes every effort to provide the KILM in French and Spanish as well as the original English. These other languages are provided in the KILM electronic versions only. Users of the software are able to select their language – English, French or Spanish – from the file menu, and can switch between languages at any time.

Information repositories and methodological information

In compiling the KILM, the ILO concentrates on bringing together information from international repositories whenever possible; for countries not included in these repositories, the information is gathered directly from national sources. The KILM includes compilations made by international organizations such as the following:

- ILO Department of Statistics (ILOSTAT)
- Organisation for Economic Co-operation and Development (OECD)
- Statistical Office of the European Union (Eurostat)
- World Bank
- Conference Board
- UNESCO Institute of Statistics

Information maintained by these organizations has generally been obtained from national sources or is based on official national publications.

Whenever information was available from more than one repository, the information and background documentation from each repository were reviewed in order to select the data most suitable for inclusion, based on an assessment of the general reliability of the sources, the availability of methodological information and explanatory notes regarding the scope of coverage, the availability of information by sex and age, and the degree of historical coverage. Occasionally, two data repositories have been chosen and presented for a single country; any resulting breaks in the historical series are duly noted.

For countries with less developed labour market information systems, such as those in the developing economies, information may not be easily available to national policy-makers and social partners, let alone to international organizations seeking to compile global datasets. Many of these countries, however, do collect labour market information through household and establishment surveys, population censuses and administrative records, so that the main problem is not so much the lack of information as its communication to the global community. In this and previous editions of the KILM, an extensive effort was made to tap into the existing datasets that are increasingly being made public by national statistical offices through the Internet. This "data mining" process is ongoing and assists the KILM, ILOSTAT and other ILO publications and research programmes in expanding the coverage of the indicators.

Notes and "breaks"

The collection of labour market indicators requires the desire for the broadest possible geographical coverage for a specified time period to be weighed against the need to ensure the greatest possible level of comparability or harmonization. Achieving a harmonious balance between coverage and comparability is a difficult task; the only realistic way of reconciling the two is to provide as much methodological information as possible, and at the same time to "flag" the issues likely to challenge users wishing to make valid comparisons between countries whose statistical

methodology and definitions may not match in every respect. Each indicator has a section on "limitations to comparability", and notes on methodology and sources are as explicit as possible in each table.

Historical continuity is important for many users of labour market information. Without overburdening the indicator tables, it is necessary to alert users to significant changes in the source, definition or coverage of the information from year to year. A "b" placed at the point of a chronological "break" denotes a change in the methodology, scope of coverage and/or type of source used within the country.

Whether the information has been obtained from other international repositories, from regional labour market indicator sets or directly from official sources, a substantial effort has been made to provide the links to the source and the information provider wherever possible.

International comparability

To ensure international comparability, it is necessary that international standards on labour statistics exist. Two forms of these are recognized by the international community: (1) Conventions and Recommendations adopted by the International Labour Conference; and (2) resolutions and guidelines adopted by the International Conference of Labour Statisticians (ICLS). Even though these resolutions are non-binding, they provide detailed guidelines on conceptual frameworks, operational definitions and measurement methodologies for the production and dissemination of the various labour statistics.[11]

As noted above, there will always be important caveats relating to the methodologies of measurement; these require time and effort to sort out before reasonable international comparisons can be made. Limitations to comparability are often indicator-specific; however, there are standard issues that require attention with every indicator. For example, comparisons will certainly be affected by the precision of the measurements made for each country and year, and by systematic differences between sources in respect of the methodology of collection, definitions, scope of coverage and reference period.

In order to minimize misinterpretation, detailed notes are provided that identify the repository, type of source (household/labour force survey, census, administrative records etc.), and changes or deviations in coverage, such as age groups, geographical coverage (national, urban, capital city) etc. When analysing or making reference to a particular indicator, users are advised to examine closely the section "limitations to comparability" and the notes to the data tables.

Global and regional estimates

The ninth edition of the KILM offers users direct access to ILO global and regional estimates from 1991 to the present. Tables are presented for the following indicators: labour force participation (table R1), employment-to-population ratio (R2), status in employment (R3), employment by sector (R4), unemployment rate (R5), youth unemployment rate (R6), ratio of youth unemployment rate (R7), labour productivity (R8) and employment by economic class (R9).

Like other KILM tables based on country-level data, several of these datasets (R1, R2, R7 and R9) can be filtered according to year, sex and age group; users will have access to both raw numbers and rates. The estimates are derived using one of three models which apply multivariate regression

[11] For the most recent relevant ICLS resolution, see box 1c below.

techniques to impute missing values at the country level. The processes used in the ILO global and regional estimation models are described in detail in box 1b.

Box 1b. ILO methodology for producing global and regional estimates of labour market indicators

The biggest challenge in the production of aggregate estimates is that of missing data. In an ideal world, producing global and regional estimates of labour market indicators, for example employment, would simply require summing up the total number of employed persons across all countries in the world or within a given region. However, because not all countries report data in every year and, indeed, some countries do not report data for any years at all, it is not possible to derive aggregate estimates of labour market indicators by merely summing across countries.

To address the problem of missing data, the former ILO Employment Trends Team designed several econometric models which are actively maintained and used to produce estimates of labour market indicators in the countries and years for which real data are not available. The Global Employment Trends Model (GET Model) is used to produce estimates – disaggregated by age and sex – of employment-to-population ratio, status in employment, employment by sector, unemployment, youth unemployment and labour productivity (KILMs 2, 3, 4, 9, 10 and 16). The econometric model described in KILM 17 is used to produce estimates on employment by economic class. The global and regional labour force estimates found in KILM 1 and KILM 13 are estimated using the Trends Labour Force model (TLF model).

Each of these models uses multivariate regression techniques to impute missing values at the country level. The first step in each model is to assemble every known piece of real information (i.e. every real data point) for each indicator in question. Only data that are national in coverage and comparable across countries and over time are used as inputs. This is an important selection criterion when the models are run, because they are designed to use the relationship between the various labour market indicators and their macroeconomic correlates – such as per capita GDP, GDP growth rates, demographic trends, country membership in the Heavily Indebted Poor Countries initiative (HIPC), geographical indicators, and country and time dummy variables – in order to produce estimates of the labour market indicators where no data exist. Thus, the comparability of the labour market data that are used as inputs in the imputation models is essential to ensure that the models accurately capture the relationship between the labour market indicators and the macroeconomic variables.

The last step of the estimation procedure occurs once the datasets containing both real and imputed labour market data have been assembled. In this step, the data are aggregated across countries to produce the final world and regional estimates. For further information on the Trends Econometric Models (including the GET and TLF models), readers can consult the technical background papers available at the following website: http://www.ilo.org/empelm/projects/WCMS_114246/lang--en/index.htm.

Summary of the 17 ILO Key Indicators of the Labour Market

The ninth edition of the KILM provides indicators related to labour force, employment, unemployment, underemployment, educational attainment, wages and compensation costs, productivity and poverty. Each of the 17 indicators is briefly described below.

KILM 1. Labour force participation rate

The labour force participation rate is a measure of the proportion of a country's working-age population that engages actively in the labour market, either by working or by looking for work; it provides an indication of the relative size of the supply of labour available to engage in the production of goods and services. The breakdown of the labour force (formerly known as economically active

population) by sex and age group gives a profile of the distribution of the labour force within a country.

Table 1a contains labour force participation rate estimates and projections by sex, for the following standardized age groups: 15+, 15–24, 15–64, 25–34, 25–54, 35–54, 55–64 and 65+, and for the years 1990 to 2030. The participation rates are harmonized to account for differences in national data collection and tabulation methodologies as well as for other country-specific factors such as military service requirements. The series includes both nationally reported and imputed data and only estimates that are national, meaning there are no geographical limitations on coverage. Table 1b contains labour force participation rates as nationally reported by sex and age group: total (15+), youth (15–24) and adult (25+), where available.

KILM 2. Employment-to-population ratio

The employment-to-population ratio is defined as the proportion of a country's working-age population that is employed (the youth employment-to-population ratio is the proportion of the youth population – typically defined as persons aged 15–24 – that is employed). A high ratio means that a large proportion of a country's population is employed, while a low ratio means that a large share of the population is not involved directly in labour market related activities, either because they are unemployed or (more likely) because they are out of the labour force altogether. Table 2a provides a harmonized series of employment-to-population ratios as estimated and projected by the ILO (like table 1a) by sex and age group: total (15+), youth (15–24) and adult (25+). Table 2b contains national estimates of employment-to-population ratios, also by sex and age group, where available.

The employment-to-population ratio provides information on the ability of an economy to create employment; for many countries the indicator offers more insight than the unemployment rate. Although a high overall ratio is typically considered positive, this indicator alone is not sufficient for assessing the level of decent work or of decent work deficit: additional indicators are required to assess such issues as earnings, hours of work, informal employment, underemployment and working conditions. Employment-to-population ratios are of particular interest when broken down by sex, as the ratios for men and women can provide information on gender differences in labour market activity in a given country.

KILM 3. Status in employment

Indicators of status in employment distinguish between the two main categories of the employed: (1) employees (also known as wage and salaried workers) and (2) the self-employed. The self-employed are further disaggregated into (a) employers, (b) own-account workers, (c) members of producers' cooperatives and (d) contributing family workers. Each of these categories is expressed as a proportion of the total number of employed persons. Categorization by employment status can help in understanding both the dynamics of the labour market and the level of development in any particular country. Over the years, and with economic growth, one would typically expect to see a shift in employment from agriculture to the industrial and services sectors, with a corresponding increase in wage and salaried workers and concomitant decreases in self-employed and contributing family workers, many of whom will have previously been employed in the agricultural sector.

The method of classifying employment by status is based on the 1993 International Classification by Status in Employment (ICSE), which classifies the job held by a person at a point in time with respect to the type of explicit or implicit employment contract that person has with other persons or organizations. Such status classifications reflect the degree of economic risk entailed in these various types of arrangements, an element of which is the strength of the attachment between the person and the job, and the type of authority over establishments and other workers that the person has or will have.

KILM 4. Employment by sector

This indicator disaggregates employment into three broad sectors – agriculture, industry and services – and expresses each as a percentage of total employment. The indicator shows employment growth and decline on a broad sectoral scale, while also highlighting differences in trends and levels between developed and developing economies. Sectoral employment flows are an important factor in the analysis of productivity trends, because within-sector productivity growth needs to be distinguished from growth resulting from shifts from lower to higher productivity sectors. The addition of further sectoral detail in tables 4b, 4c and 4d is useful for demonstrating trends of employment within individual sectors of the economy.

The sectors of economic activity are defined according to the International Standard Industrial Classification of All Economic Activities (ISIC), Revision 2 (1968), Revision 3 (1990) and Revision 4 (2008).

KILM 5. Employment by occupation

Employment by occupation is presented according to major classification groups in three tables: table 5a according to the International Standard Classification of Occupation, 2008 (ISCO-08); table 5b according to ISCO-88; and table 5c according to ISCO-68. All three tables are disaggregated by sex.

There is widespread interest in this indicator. Economists use occupation in the analysis of differences in the distribution of earnings and incomes over time and between groups – men and women, for example – as well as in the analysis of imbalances of supply and demand in different labour markets. Policy-makers use occupational statistics in support of the formulation and implementation of economic and social policies and to monitor progress with respect to their application, for example in respect of labour planning and the planning of educational and vocational training. Managers need occupational statistics for planning and deciding on personnel policies and monitoring working conditions, both at the enterprise level and in the context of their industry and relevant labour markets.

KILM 6. Part-time workers

There has been rapid growth in part-time work in the past few decades in the developed economies. This trend is related to the increase in the number of women in the labour market, but also to attempts to introduce labour market flexibility in response to changes in work organization within industry, and to the growth of the services sector.

The indicator on part-time workers focuses on individuals whose working hours total less than "full time", as a proportion of total employment. Because there is no agreed international definition as to the minimum number of hours in a week that constitute full-time work, the dividing line is determined either on a country-by-country basis or through the use of special estimations. Two measures are calculated for this indicator: total part-time employment as a proportion of total employment, sometimes referred to as the "part-time employment rate" or the "incidence of part-time employment"; and the percentage of the part-time workforce composed of women.

KILM 7. Hours of work

The number of hours worked has an impact on the health and well-being of workers as well as on levels of productivity and labour costs of establishments. Measuring levels of and trends in hours

worked in a society, for different groups of workers and for workers individually, is therefore important when monitoring working and living conditions as well as when analysing economic developments.

Two measurements related to working time are included in KILM 7 in order to give an overall picture of the time that the employed throughout the world devote to work activities. The first measure relates to the hours an employed person works per week (table 7a). This table shows numbers of employed classified according to their weekly hours of work, using the following bands: less than 15 hours worked per week, 15–29 hours, 30–34 hours, 35–39 hours, 40–48 hours, and 49 hours and over, as available. The data are broken down by sex, age group (total, youth and adult) and employment status (total, and employees or wage and salaried workers), wherever possible. The second measure is the average annual actual hours worked per person (table 7b).

KILM 8. Employment in the informal economy

The informal economy plays a major role in employment creation, income generation and production in many countries. In countries with high rates of population growth or urbanization, the informal economy tends to absorb most of the growth in the labour force. Work in the informal economy is generally recognized as entailing absence of legal identity, poor working conditions, lack of membership in social protection systems, higher incidence of work-related accidents and ailments, and limited freedom of association. Knowing how many people are in the informal economy is a starting point for considering the extent and content of policy responses required.

KILM 8 includes national estimates of informal employment. Table 8 combines two measures of the informal economy: employment in the informal sector, the enterprise-based measure defined by the 15th ICLS; and informal employment, the broader job-based measure recommended in the 17th ICLS. The latter includes both persons employed in informal sector enterprises and persons in informal employment outside the informal sector (employees holding informal jobs), as well as contributing family workers in formal or informal sector enterprises and own-account workers engaged in the production of goods for own end-use by their household. Informal employment and its subcategories are presented as a share of total non-agricultural employment.

KILM 9. Unemployment

The unemployment rate is probably the best-known labour market measure and certainly one of the most widely quoted by the media in many countries. Together with the labour force participation rate (KILM 1) and employment-to-population ratio (KILM 2), it provides the broadest available indicator of economic activity and status in terms of labour markets for countries that regularly collect information on the labour force. The unemployment rate tells us the proportion of the labour force that does not have a job, is available to work and is actively looking for work. It should not be misinterpreted as a measurement of economic hardship, although a correlation often exists. Table 9a provides a harmonized series of unemployment rates as estimated by the ILO (like tables 1a and 2a) by sex; table 9b contains national estimates on total unemployment by sex, where possible; and table 9c shows flows in and out of unemployment, measured by the probability (hazard rate) of losing a job once employed or finding a job once unemployed.

The resolution concerning statistics of work, employment and labour underutilization adopted by the 19th ICLS, which updates and replaces the resolution concerning statistics of the economically active population, employment, unemployment and underemployment adopted by the 13th ICLS, defines the unemployed as all persons of working age who, during the reference period, were without work, currently available for work and seeking work. However, it should be recognized that national definitions and coverage of unemployment can vary with regard to factors such as age limits, criteria

for seeking work, and treatment of, for example, persons temporarily laid off, discouraged about job prospects or seeking work for the first time.

KILM 10. Youth unemployment

Youth unemployment is an important policy issue for many countries at all stages of development. For the purpose of this indicator, the term "youth" covers persons aged 15–24, while "adults" are defined as persons aged 25 and over, although national variations in age definitions do occur. The indicator presents youth unemployment in the following four ways: (a) the youth unemployment rate; (b) the ratio of the youth unemployment rate to the adult unemployment rate; (c) the youth share in total unemployment; and (d) youth unemployment as a proportion of the youth population.

The KILM 10 measures should be analysed together; any of the four, analysed in isolation, could present a distorted image. For example, a country might have a high ratio of youth-to-adult unemployment but a low youth share in total unemployment. The presentation of youth unemployment as a proportion of the youth population recognizes the fact that a large proportion of young people enter unemployment from outside the labour force. Taken together, the four indicators provide a fairly comprehensive indication of the problems that young people face in finding jobs. Table 10a provides a harmonized series of youth unemployment rates as estimated by the ILO (like tables 1a, 2a and 9a) by sex; table 10b contains national estimates on total youth unemployment by sex, where possible. Table 10c complements the labour market situation of youth by showing the number of young people who are not in employment, education or training (NEET) as a percentage of the youth population. The NEET rate is presented for youth aged 15–24 unless otherwise indicated in the notes.

KILM 11. Long-term unemployment

Unemployment tends to have more severe effects the longer it lasts. Short periods of joblessness can normally be dealt with through unemployment compensation, savings and, perhaps, assistance from family members. Unemployment lasting a year or longer, however, can cause substantial financial hardship, especially when unemployment benefits either do not exist or have been exhausted. Long-term unemployment is not generally viewed as an important indicator for developing economies, where the duration of unemployment often tends to be short, given the lack of unemployment compensation and the fact that most people therefore cannot afford to be without work for long periods. Accordingly, most of the information available for this indicator comes from the more developed economies. The data are presented by sex and age group (total, youth and adult), wherever possible.

Table 11a includes two separate measures of long-term unemployment: (a) those unemployed for one year or more as a percentage of the labour force; and (b) those unemployed for one year or more as a percentage of the total unemployed (the incidence of long-term unemployment). Table 11b includes the number of unemployed (as well as their share of total unemployed) at different durations: (a) less than one month; (b) one month to less than three months; (c) three months to less than six months; (d) six months to less than 12 months; (e) 12 months or more. Data are disaggregated by sex and age group (total, youth and adult).

KILM 12. Time-related underemployment

Underemployment reflects underutilization of the productive capacity of the labour force. Time-related underemployment is the first component of underemployment to have been agreed upon and properly defined within the international community of labour statisticians. The international

definition was adopted in 1982 by the 13th ICLS, amended in 1998 by the 16th ICLS and further clarified by the 19th ICLS in 2013. It includes all persons in employment who "wanted to work additional hours, whose working time in all jobs was less than a specified hours threshold, and who were available to work additional hours given an opportunity for more work".

The indicator is important for improving the description of employment-related problems, as well as for assessing the extent to which available human resources are being used in the production process of the country concerned. It also provides useful insights for the design and evaluation of employment, income and social programmes. The indicator is calculated as time-related underemployment as a percentage of total employment.

KILM 13. Persons outside the labour force

The inactivity rate is defined as the percentage of the population that is neither working nor seeking work (that is, not in the labour force). Inactivity rates for the age groups 15+, 15–24, 15–64, 25–34, 25–54, 35–54, 55–64 and 65+ are shown in table 13. The 25–54 age group can be of particular interest since it is considered to be the "prime" age band, representing individuals who are generally expected to be in the labour force, having normally completed their education and not yet reached retirement age; it is therefore worth investigating why these potential labour force participants are inactive. The inactivity rate of women, in particular, tells us a lot about the social customs of a country, attitudes towards women in the labour force, and family structures in general.

When the inactivity rate is added to the labour force participation rate (KILM table 1a) for the corresponding group, the total will equal 100 per cent. Data in table 13 have been harmonized to account for differences in national data collection and tabulation methodologies as well as for other country-specific factors such as military service requirements. The series includes both nationally reported and imputed data and only estimates that are national, meaning there are no geographical limitations in coverage.

KILM 14. Educational attainment and illiteracy

An increasingly important aspect of labour market performance and national competitiveness is the skill level of the workforce. Information on levels of educational attainment is currently the best available indicator of labour force skill levels. These are important determinants of a country's capacity to compete successfully in world markets and to make efficient use of rapid technological advances; they are also among the factors determining the employability of workers.

Table 14a presents information on the educational attainment of the labour force, with data broken down by sex and age group (total, youth and adult) wherever possible. Table 14b presents the distribution of the unemployed population by level of educational attainment, with data broken down by sex and age group (total, youth and adult) wherever possible. Table 14c presents the unemployment rates of persons who attained education at, respectively, primary level or less, secondary level or tertiary level. The categories used in the three indicators are conceptually based on the levels of the International Standard Classification of Education (ISCED). ISCED was designed by UNESCO to serve as an instrument for assembling, compiling and presenting comparable indicators and statistics of education, both within countries and internationally. Finally, table 14d is a measure of illiteracy in the population (total, youth and adult).

KILM 15. Wages and compensation costs

Wages represent a measure of the level and trend of workers' purchasing power and an approximation of their standard of living. Compensation costs provide an estimate of employers'

expenditure on the employment of their workforce. The indicators are, in this sense, complementary in that they reflect the two main facets of existing wage measures; one aiming to track the income of employees, the other showing the costs incurred by employers for employing them. Information on average wages represents one of the most important elements of labour market information. Because wages are a substantial form of income, accruing to a high proportion of the economically active population, information on wage levels is essential to evaluate the living standards and conditions of work and life of this group of workers in both developed and developing economies.

Average hourly compensation cost is a measure intended to represent employers' expenditure on the benefits granted to their employees as compensation for an hour of labour. These benefits accrue to employees either directly – in the form of total gross earnings – or indirectly – in terms of employers' contributions to compulsory, contractual and private social security schemes, pension plans, casualty or life insurance schemes and benefit plans in respect of their employees.

Table 15a presents trends in average monthly wages, in both nominal and real terms (i.e. adjusted for changes in consumer prices). Both the nominal and real average wage series are presented in national currency. This enables data users to calculate nominal and real wage growth rates without the distortion caused by exchange rate fluctuations, and to link wage data to other data expressed in national currency. Table 15b is concerned with the levels, trends and structures of employers' hourly compensation costs for the employment of workers in the manufacturing sector. Total compensation is also broken down into "hourly direct pay" with subcategories "pay for time worked", "directly paid benefits" and "social insurance expenditure and labour-related taxes"; here all variables are expressed in US dollars.

KILM 16. Labour productivity

Productivity, in combination with hourly compensation costs, can be used to assess the international competitiveness of a labour market. Economic growth in a country or sector can be ascribed either to increased employment or to more effective work by those who are employed. The latter can be described through data on labour productivity. Labour productivity, therefore, is a key measure of economic performance. An understanding of the driving forces behind it, in particular the accumulation of machinery and equipment, improvements in organization and in physical and institutional infrastructures, improved health and skills of workers ("human capital") and the generation of new technology, is important in formulating policies to support economic growth.

Labour productivity is defined as output per unit of labour input. Two measures are presented in table 16a: GDP per person engaged and GDP per hour worked, both in 1990 US dollars and indexed to 1990 = 100 with information taken from the Conference Board. Table 16b presents ILO estimates of labour productivity expressed as GDP per person engaged in 2005 international dollars at PPP as well as in 2005 constant US dollars at market exchange rates.

KILM 17. Poverty, income distribution and the working poor

Poverty can result when individuals are unable to generate sufficient income from their labour to maintain a minimum standard of living. The extent of poverty, therefore, can be viewed as an outcome of the functioning of labour markets. Because labour is often the most significant, if not the only, asset of individuals in poverty, the most effective way to improve the level of well-being is to increase employment opportunities and labour productivity through education and training.

Any estimate of the number of people in poverty in a country depends on the choice of the poverty threshold. What constitutes such a threshold of minimum basic needs is a subjective judgement, varying with culture and national priorities. Definitional variations create difficulties in

making international comparisons. Therefore, in addition to national poverty measurements and the Gini index shown in table 17a, this indicator presents data on employment by economic class, showing individuals who are employed and who fall within the per capita consumption thresholds of a given economic class group. By combining labour market characteristics with household consumption group data, estimates of employment by economic class give a clearer picture of the relationship between economic status and employment. Because of the important linkages between employment and material well-being, evaluating these two components side by side also provides a more detailed perspective on the dynamics of productive employment generation, poverty reduction and growth in the middle class throughout the world.

KILM electronic versions

The ILO hopes to reach a wider audience by presenting KILM data in electronic form. As in previous editions, the electronic version of this ninth edition of the KILM contains all the datasets for the indicators, together with an Excel add-in and interactive software through which users can select and query the indicators by country, year, type of source and other user-defined functions according to specific needs. Data updates will be automatically downloaded each time a user opens the programme (if connected to the Internet). Users who do not have Internet access will be notified by email of the availability of updates, once they have filled in the registration material. Users can download the KILM programme from www.ilo.org/kilm.

The KILM database can also be directly accessed through the KILM web page, making access to country-level data for the 17 key labour market indicators, as well as the descriptive text explaining their use, definitions and basic trends, easier than ever. Users can run quick and easy searches of KILM indicators, and display and export data in spreadsheet format, directly from the Internet. As with the software, direct access to the KILM indicators is available through www.ilo.org/kilm.

Box 1c. Resolution concerning statistics of work, employment and labour underutilization

In October 2013, the 19th ICLS adopted a "resolution concerning statistics of work, employment and labour underutilization" in which several concepts in the world of work are redefined and new ones are introduced (ILO, 2013). The progressive implementation of this resolution will bring about several changes in how statistics are compiled.

Even though there are no immediate changes to the data in the KILM (statistics such as employment and unemployment are based on concepts that remain unchanged at their core, despite the expansion of the overall labour market framework and the introduction of new measures of labour underutilization), the new resolution will affect the future compilation of labour market statistics, particularly in terms of indicators related to the concept of work, and forms of work other than employment.

A substantial change to the statistics on **employment** is the introduction of "five mutually exclusive forms of work [that are] identified for separate measurement. These forms of work are distinguished on the basis of the intended destination of the production (for own final use; or for use by others, i.e. other economic units) and the nature of the transaction (i.e. monetary or non-monetary transactions, and transfers), as follows:

(a) own-use production work comprising production of goods and services for own final use;
(b) employment work comprising work performed for others in exchange for pay or profit;
(c) unpaid trainee work comprising work performed for others without pay to acquire workplace experience or skills;
(d) volunteer work comprising non-compulsory work performed for others without pay;
(e) other work activities not defined in this resolution" (para. 7).

Furthermore: "Persons in employment are defined as all those of working age who, during a short reference period, were engaged in any activity to produce goods or provide services for pay or profit. They comprise:

(a) employed persons 'at work', i.e. who worked in a job for at least one hour;

(b) employed persons 'not at work' due to temporary absence from a job, or to working-time arrangements (such as shift work, flexitime and compensatory leave for overtime)" (para. 27).

The resolution extends the definition of **unemployment** to include examples of "activities to seek employment" and three specifically defined groups of jobseekers:

"(a) future starters defined as persons 'not in employment' and 'currently available' who did not 'seek employment' … because they had already made arrangements to start a job within a short subsequent period, set according to the general length of waiting time for starting a new job in the national context but generally not greater than three months;

(b) participants in skills training or retraining schemes within employment promotion programmes, who on that basis, were 'not in employment', not 'currently available' and did not 'seek employment' because they had a job offer to start within a short subsequent period generally not greater than three months;

(c) persons 'not in employment' who carried out activities to migrate abroad in order to work for pay or profit but who were still waiting for the opportunity to leave" (para. 48).

The definition for **persons in time-related underemployment** was also extended to define this group of people as "all persons in employment who, during a short reference period, wanted to work additional hours, whose working time in all jobs was less than a specified hours threshold, and who were available to work additional hours given an opportunity for more work, where:

(a) the 'working time' concept is hours actually worked or hours usually worked, dependent on the measurement objective (long or short-term situations) and in accordance with the international statistical standards on the topic;

(b) 'additional hours' may be hours in the same job, in an additional job(s) or in a replacement job(s);

(c) the 'hours threshold' is based on the boundary between full-time and part-time employment, on the median or modal values of the hours usually worked of all persons in employment, or on working time norms as specified in relevant legislation or national practice, and set for specific worker groups;

(d) 'available' for additional hours should be established in reference to a set short reference period that reflects the typical length of time required in the national context between leaving one job and starting another" (para. 43).

For further information and details on the resolution, see http://www.ilo.org/global/statistics-and-databases/meetings-and-events/international-conference-of-labour-statisticians/19/lang--en/index.htm.

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