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Inequalities in emerging
economies: Informing the
policy dialogue on inclusive
growth

**Carlotta Balestra,
Ana Llana-Nozal,
Fabrice Murtin,
Elena Tosoetto,
Benoît Arnaud**

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STATISTICS AND DATA DIRECTORATE

Inequalities in emerging economies

Informing the policy dialogue on inclusive growth

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Carlotta Balestra, Statistics and Data Directorate, +33 (0) 1 45 24 94 36,
Carlotta.BALESTRA@oecd.org;

Ana Llena-Nozal, Directorate for Employment, Labour and Social Affairs,
+33 (0) 1 45 24 85 27, Ana.LLENANOZAL@oecd.org

Fabrice Murtin, Statistics and Data Directorate, +33 (0) 1 45 24 76 08,
Fabrice.MURTIN@oecd.org;

Elena Tosetto, Statistics and Data Directorate, +33 (0) 1 45 24 95 06,
Elena.TOSETTO@oecd.org;

Benoît Arnaud, Statistics and Data Directorate, +33 (0) 1 45 24 80 24,
Benoit.ARNAUD@oecd.org;

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*Inequalities in emerging economies - Informing the policy
dialogue on inclusive growth*

Carlotta Balestra (OECD Statistics and Data Directorate), Ana Llana-Nozal (OECD Directorate for Employment, Labour and Social Affairs), Fabrice Murtin, Elena Tosetto, and Benoît Arnaud (OECD Statistics and Data Directorate)

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Abstract / Résumé

The paper describes inequality trends in selected emerging economies (Brazil, Colombia, Costa Rica, China, India, Indonesia and South Africa) in a range of monetary (i.e. income) and non-monetary dimensions of people's life (i.e. education, health status, employment and subjective well-being). Inequalities are analysed not only in terms of overall dispersion, but also as gaps between population groups defined by specific characteristics (i.e. sex, age, educational attainment and place of living). To the extent made possible by the nature of available data, measures of income inequality for these emerging countries, as well as for 7 Latin American countries (Bolivia, Dominican Republic, Ecuador, Panama, Paraguay, Peru and Uruguay), are based on concepts and definitions similar to those used by the OECD for its member countries. All the emerging economies covered in the paper show levels of income inequality higher than in the five most unequal OECD countries, while the picture is more mixed when it comes to inequalities in other dimensions of people's well-being. An annex complements the analysis by presenting an assessment of the quality of the available data on income distribution for the emerging countries covered in the paper.

Keywords: inequality, poverty, well-being, emerging economies, database

JEL Classification: D31, D63, I14, I24, I32, J01

Le rapport décrit l'évolution des inégalités dans certaines économies émergentes (Afrique du Sud, Brésil, Colombie, Costa Rica, Chine, Inde et Indonésie) au regard de différentes dimensions monétaires (c'est-à-dire liées au revenu) et non monétaires de la vie des individus (éducation, santé, emploi et bien-être subjectif). Les inégalités sont analysées non seulement en termes de dispersion globale mais aussi en termes d'écarts entre des groupes de population définis selon certaines caractéristiques (sexe, âge, niveau d'études et lieu de vie). Dans la mesure où le permet la nature des données disponibles, les indicateurs portant sur les inégalités de revenu dans ces pays émergents, ainsi que dans 7 pays d'Amérique latine (Bolivie, Équateur, Panama, Paraguay, Pérou, République dominicaine, et Uruguay), s'appuient sur des concepts et des définitions comparables à ceux qu'utilise l'OCDE pour ses pays membres. Dans toutes les économies émergentes couvertes dans ce rapport, on constate des inégalités de revenu supérieures au niveau relevé dans les cinq pays de l'OCDE les plus inégalitaires. Le bilan est plus mitigé toutefois s'agissant des inégalités observées dans d'autres dimensions du bien-être individuel. Une annexe complète l'analyse présentée dans le rapport en proposant une évaluation de la qualité des données disponibles sur la distribution des revenus dans les économies émergentes considérées dans le rapport.

Mots-clés : inégalité, pauvreté, bien-être, économies émergentes, base de données

Classification JEL: D31, D63, I14, I24, I32, J01

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The project was coordinated by Stefano Scarpetta (Director of the Employment Labour and Social Affairs Directorate) and Martine Durand (Director of the Statistics and Data Directorate and OECD Chief Statistician) and reflects contributions from a team of policy analysts and statisticians from the OECD Directorate for Employment, Labour and Social Affairs and from the Statistics and Data Directorate. Carlotta Balestra (Statistics and Data Directorate) and Ana Llena-Nozal (Directorate for Employment, Labour and Social Affairs) are the principal authors of Sections 1, 2, 3 and 4, while Fabrice Murtin (Statistics and Data Directorate) was the main author of Section 5. The country-sections of Annex B were prepared by Carlotta Balestra (Statistics and Data Directorate) in the case of China; Benoit Arnaud (Statistics and Data Directorate) in the case of India; Elena Toso (Statistics and Data Directorate) in the case of South Africa; and Josefine Lundin under supervision of Ana Llena Nozal (Directorate for Employment, Labour and Social Affairs) in the case of Brazil, Colombia, Costa Rica and Indonesia. Pauline Fron, Josefine Lundin and Maxime Ladaque (Directorate for Employment, Labour and Social Affairs) as well as Gianpaolo Bonomi, Christine Le Thi and Kent Troutman (Statistics and Data Directorate) provided research assistance to the full report. Michael Förster (Directorate for Employment, Labour and Social Affairs) and Marco Mira d’Ercole (Statistics and Data Directorate) co-ordinated the report.

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1. Introduction

1. Inequalities are now on the very top of the international economic agenda. Prominent in the SDGs, the need for a more inclusive growth model to tackle inequalities has been identified as high priority in recent G20 communiques (e.g. from the Leaders' Summit in Hangzhou, www.G20.org) and as a key economic risk by the business community (e.g. the World Economic Forum, reports.weforum.org/global-risks-2016/global-risks-landscape-2016). The OECD has led these discussions through its Inclusive Growth Initiative (see *All on Board: Making Inclusive Growth Happen*) and through its long-standing association with research and analysis of income distribution data. However, inequality levels and trends are diverse across different types of economies and across different well-being dimensions. This paper focuses on inequality trends in selected key emerging economies (Brazil, Colombia, Costa Rica, China, India, Indonesia and South Africa – EEs hereafter) and also provides some evidence for 7 Latin American countries (Bolivia, Dominican Republic, Ecuador, Panama, Paraguay, Peru and Uruguay). While the primary focus is on income inequality, evidence for EEs is also presented on inequalities in a range of non-monetary dimensions of people's life.

2. The experiences of the countries reviewed in this paper have been very diverse. These countries differ in terms of economic size, population, per capita income and growth performance over the past decade. China and India, for example, are among the largest economies and the two most populous countries in the world, while Costa Rica and South Africa are considerably smaller.

3. This paper makes several contributions relevant to the achievement of a more inclusive society.

- First, it broadens the discussion on income inequalities to major emerging economies, OECD Key Partner countries and to a selection of Latin American countries.
- Second, it presents estimates not just for income inequality but also for income poverty, which is very relevant for countries (such as those reviewed here) with less developed social safety nets.
- Third, the paper covers inequalities beyond income (a feature of the OECD inclusive growth framework), looking at education, health status, job quality and subjective well-being in EEs.

4. Beyond empirical evidence, the contribution of the paper is also methodological. While estimates of income inequality in emerging economies are routinely reported in the press and used in policy analysis, they are typically based on sources, conventions and definitions that do not allow meaningful comparisons among these countries and, even more so, with developed economies. This paper improves upon this situation by identifying national sources that allow comparative analysis of income inequality in the seven emerging countries reviewed. This exercise, which builds on an assessment of the quality of the available data, has allowed including estimates for five of these countries (Brazil,

China, Costa Rica, India and South Africa) in OECD databases,¹ while steps towards that goal are still ongoing in the case of Colombia and Indonesia.² Income distribution estimates, based on the same conventions and definitions used for OECD countries have also been gathered for 7 Latin American countries (Bolivia, Dominican Republic, Ecuador, Panama, Paraguay, Peru and Uruguay), and are presented in this paper.³ This is the first time that a comprehensive set of comparable income distribution estimates for a range of emerging economic has been done at the OECD.

1.1. Summary of main findings

5. Computing income inequality estimates for emerging countries that satisfy minimal comparability requirements (both across emerging countries and with respect to OECD countries) is challenging, not only because concepts and procedures to compute key indicators differ across countries (and frequently also within a country over time), but also because many emerging economies still lack adequate statistical capacity and conduct household surveys irregularly, occasionally or with long intervals. In areas where recent comparable income data are available, this paper highlights that:

- Income inequality is generally higher in emerging economies than in the most unequal OECD countries. This holds true also for Latin American countries, with the exception of Peru and Uruguay.
- In contrast to the OECD area, not all emerging countries and Latin American countries have experienced an increase in income inequality over the past two to three decades. Bolivia, Brazil, Ecuador, Panama, Peru, the Dominican Republic and Uruguay have achieved a reduction in income inequality since the early 2000s, although from a very high level. Indonesia, on the other hand, has become more unequal over time.
- The size of the middle class (defined as people with income between 75% and 200% of the median) is significantly smaller in emerging economies than in most OECD countries. In turn, the income share of the upper class (people with income more than 200% of the median) is often twice as large as in the OECD. Based on

1. Income inequality estimates for these countries were included in the OECD Income Distribution Database (OECD IDD) in July 2017, as the available national sources for these countries (official sources in the case of Brazil and Costa Rica; non-official ones in the case of China, India and South Africa) allowed producing estimates based on welfare metric used by the OECD for monitoring income distribution in member countries, i.e. that of equivalised household disposable income (net of taxes paid by household but including current transfers received). In the case of Brazil, official micro-data on gross household income were “treated” through micro-simulation models to estimates the amount of taxes paid by household with different characteristics. Full details are provided in Annex B.

2. Income inequality estimates for Indonesia are not yet included in the OECD Income Distribution Database as the data available from the (non-official) source are not nationally representative. Similarly, estimates for Colombia have not yet been included in the OECD IDD due to the inconsistent treatment of taxes paid by household across waves of the primary source used here.

3. Estimates for all these Latin American countries (provided courtesy of Leo Tornarolli, CEDLAS) are not included in the OECD IDD due to uncertainties and ambiguities on whether taxes paid by households are included in national sources.

tax data, the share of pre-tax income going to the top 1% of people is comparable to that of OECD economies, and rising.

- All emerging economies covered by this paper have significantly reduced extreme poverty (defined as living on less than USD 1.9 per day) in the past decades, with some countries more than halving the share of population living in poverty. At the same time, levels of extreme poverty remain high in India and South Africa.
 - However relative poverty, measured as the percentage of people living with income below 50% of national median income, is higher in emerging economies and Latin American countries than in most OECD countries, and has been broadly stable in emerging economies, while generally declined in Latin American countries (with the exception of Paraguay for which it increased) in recent years.
6. Emerging countries also feature significant inequalities when looking beyond income:
- Significant gaps in educational outcomes exist for children from a disadvantaged socio-economic background: family income has a strong influence on enrolment rates in secondary and tertiary education.
 - Gender gaps in labour force participation are typically above the OECD average, but have declined considerably over the past three decades.
 - Overall job quality is lower in emerging economies than in OECD countries. Earnings quality is usually lower, reflecting both lower average earnings and higher earnings inequality. Quality of the working environment is also generally lower in emerging economies. A high incidence of labour market informality is one of the most salient features of emerging economies, limiting the impact of labour market regulation and redistribution through the tax and transfer system.
 - In terms of health inequality, the probability of dying before age 70 is particularly high in South Africa, while it is much closer to the average OECD in Costa Rica and China. On average, in the emerging countries considered in this paper, one fifth of the population report having health problems that hamper their daily activities. Gender gaps in self-reported health problems are however smaller than in the OECD area, while the upward gradient in the prevalence of poor health by age (when moving from the youngest to the oldest age group) is steeper at early ages and flattens after age 45. In all emerging countries, rural residents report poorer health conditions than their urban counterparts.
 - Inequality in life satisfaction is much larger in emerging economies than in most OECD countries, with the exception of Indonesia where it is close to that of the average OECD country. While in most OECD countries life satisfaction is U-shaped in age, in all emerging economies average life satisfaction is highest for the youngest age group, and falls steadily in older ages. In all emerging countries, less educated people report lower levels of life satisfaction, with the gap being largest in Colombia and South Africa.
 - This paper is organised as follows. After this introduction, Section 2 reviews a number of methodological issues that limit comparisons of income inequality across emerging countries. Section 3 describes key income inequality patterns in emerging economies and Latin American countries based on estimates that are broadly comparable with those routinely used for OECD countries, while Section 4

extends these comparisons to other aspects of people's well-being (limited to emerging countries): both sections, also describe the policy options available to these countries to reduce these inequalities. Section 5 presents estimates of multidimensional living standards, a composite metric of development that combines information on per capita income, life expectancy, employment and income inequality based on a consistent set of shadow prices, while Section 6 concludes.

2. The complexity of comparing inequality indicators in emerging countries

7. Gathering inequality estimates for emerging countries that satisfy minimal comparability requirements (both across emerging countries and with respect to OECD countries) is a challenging task, due to a number of reasons.

8. First, while large-scale, official household surveys are typically the preferred instrument for measuring income inequalities, in many emerging economies they are conducted in an environment of stringent budgetary constraints, and with widely varying levels of survey infrastructure and technical capacity, which poses a threat to the production of regular and timely statistics. Household surveys are usually very costly, particularly if they are underutilised. To reduce costs, countries may reduce their frequency, sample size, and breadth of content. As a result, most emerging countries still conduct household surveys irregularly, occasionally or at long intervals. Further, in countries with a less developed statistical infrastructure, it takes a long time to process the data collected. Consequently, data are often disseminated partially and/or late, reducing their usefulness for decision-making.

9. Second, cross-country comparisons of levels of income inequalities and of their evolution over time may be challenging when concepts, questionnaires and procedures to compute key indicators differ among countries, and frequently also within a country over time. For instance, in several emerging countries consumption expenditure is the welfare metric most commonly used to report on households' economic well-being, while income is typically used in OECD countries (as well as in China and in Latin American countries). Using consumption measures generally results in lower levels of inequality than do income-based measures (Morelli et al., 2015).⁴ While there are good reasons for relying on consumption data rather than income in countries where many households live out of subsistence agriculture (and where savings are very low), these measure may vary with changes in survey design, depending on factors such as the length of the recall period, the number of consumption items listed in the survey questionnaire, whether survey participants record their consumption themselves or are interviewed, and differences in the methods used to impute home production, services from housing and consumer durables (Beegle et al., 2012).⁵

10. Third, even in countries where household income is the metric assessed by surveys, the definition of income usually departs from the one used for OECD countries, and can also vary – and usually does – between different datasets depending on, for instance, whether and how in-kind income, imputed rents and home production are treated, and whether specific income sources such as remittances, private transfers or property income are properly captured. Further, incomes may be reported on either a net or gross-of-tax basis: in the latter case (as for the official data on Brazil), inequality measures based on

4. Deininger and Squire (1996) suggested that, across a range of developing countries, Gini indexes based on consumption expenditure are some 6.6 points lower than when based on income.

5. Based on experiments carried out in Tanzania based of 8 random samples of 5 000 households each from the same population, Beegle et al. (2012) concluded that, relative to a benchmark household budget survey with a 14-day recall period and a long list of consumption items, reducing the recall period by a week lowered measured mean consumption by 12% percent, while combining a lower recall period and a shorter list of commodity items reduced mean consumption by 28%.

pre-tax income are higher than for countries reporting inequalities in disposable, i.e. post-tax, income, as they do not reflect the redistributive impact of taxes. In some countries (e.g. Mexico), even when measures refer to disposable income, data on taxes are not separately reported, and it is therefore not possible to capture the full extent of redistribution (only that of public transfers). Finally, while all OECD estimates refer to an income metric adjusted for economies of scale in household needs (the so-called equivalised household incomes, see Annex B), the data available for most emerging economies use income per capita as a standard, which assumes no economies of scale within households, and which typically lead to higher estimates of inequality compared to equivalised amounts.

11. Finally, while national statistical offices from these countries have become more willing to make their data and documentation available through their websites and in other platforms, the degree of data accessibility and transparency still varies significantly across emerging countries, to a much greater extent than among OECD countries. In many cases the dissemination of survey data does not go beyond basic frequencies and tabulations, which constrains the subsequent analysis that can be performed. Moreover, in some cases, the background documentation of the survey provided by statistical offices is scant.

12. In addition to national surveys funded out of regular budgets of statistical offices, several household surveys are sponsored by international for the purposes of constructing and monitoring indicators of interest to the agencies and for making international comparisons of these indicators (see Box 2.1). However, most such surveys are conducted on an *ad hoc* basis, depending on the needs of the sponsoring agency. A number of non-official international surveys may also be used for comparative purposes (e.g. Gallup World Poll), although their small sample sizes limits representativeness of the estimates and cannot substitute for multi-round, integrated national surveys. Non-official surveys, sponsored by individual universities and research centres, do exist and provide a basis for computing comparable measures, but they differ in features that limit cross-country comparability.

Box 2.1. Improving the international comparability of income statistics for emerging countries

Several projects have been recently developed to improve cross-country comparisons in the field of income inequality, with the aim of building “secondary inequality data sets”. These projects not only collect existing data sources, but they also adjust these data to improve their comparability (e.g. by trying to reach common definitions when there is no ex-ante comparability). They also propose second-best choices among alternative data sources when no first best option can be isolated. Prominent examples of such databases are the Luxembourg Income Study (LIS), the United Nations University-World Institute for Development Research (WIDER), the World Income Inequality Database (WIID), the World Income Distribution (WYD), PovCal and the World Development Indicators (WDI) produced by the World Bank, and the Chartbook of Economic Inequality Data (Atkinson and Morelli, 2014). The Journal of Income Inequality (2015 special issue) and Förster and Tóth (2015) provide a detailed review and discussion of the strengths and weaknesses of these and other datasets.

The LIS project collects income microdata from household surveys standardizing them into a common framework of income, demographic and employment variables. The standardisation is undertaken ex post. While LIS has expanded its country coverage to include African, Asian and Latin American countries, it currently has data for a good

selection of Latin American countries (Brazil, Colombia, the Dominican Republic, Guatemala, Panama, Paraguay, Peru, Uruguay) while data is scarce for Asia (China, India) and Africa (Egypt, South Africa).

World Bank's PovcalNet is global in scope and derives its summary statistics (primarily) from microdata. The degree of harmonization of the PovcalNet data is, however, low; Povcal contains estimates based on both income and consumption expenditure and, within those categories, on income and consumption aggregates that are widely disparate.

WIID is a dataset administered by UNU-WIDER that collects inequality estimates from a number of sources, including published research papers and primary databases. It is global in scope, and often reports multiple entries for the same country and year, sometimes with different welfare concepts (e.g. disposable income versus consumption) and sometimes from different sources. The currently available version – World Income Inequality Database V3.3 (2015) – proposes data series up to 2013.

13. International development institutions have started efforts to harmonise survey guidelines. Since 2004, the International Household Survey Network (IHSN), an informal network of international agencies, organises periodic meetings to standardise household surveys and increase the coverage and comparability of survey results. To foster harmonisation and improve data collection methods and dissemination, IHSN supports technical work to assess and improve survey methodologies, hosting on its website a catalogue of surveys and censuses conducted in low- and middle-income countries.

14. The discussion of the post-2015 development agenda and the Sustainable Development Goals has renewed interest in the quality and availability of statistics for monitoring inequalities in key well-being dimensions, and represents a unique opportunity for investments in data and statistical systems.

3. Inequalities in household income

3.1. Income inequality

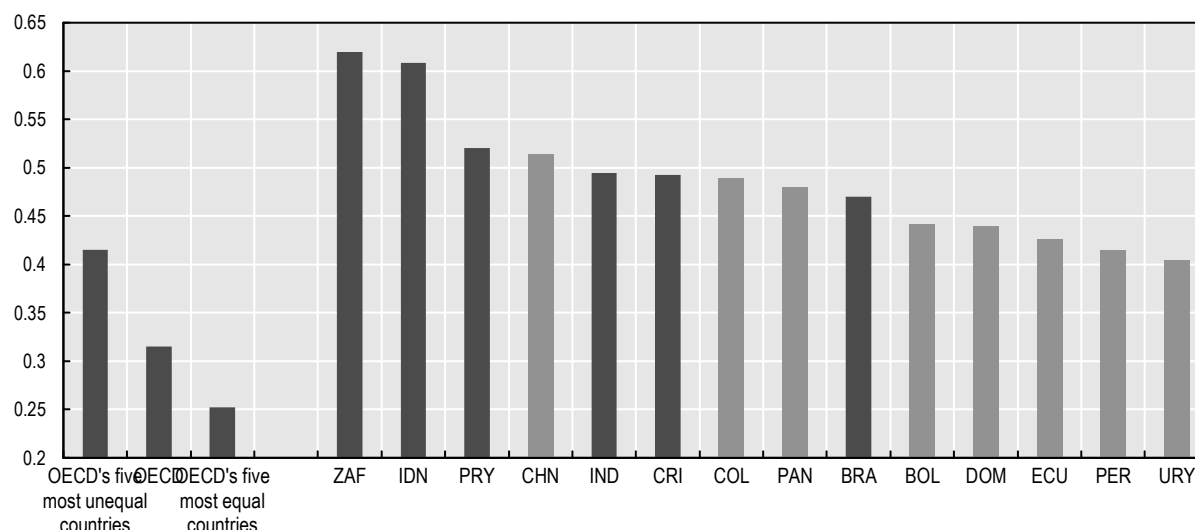
15. The baseline measure used by the OECD to assess income inequality in OECD countries is that of equivalised household disposable income, with income concepts and definitions based on the *Canberra Group Handbook on Household Income Statistics* (UNECE, 2011). The resulting indicators are available at the *OECD Income Distribution Database* (www.oecd.org/social/income-distribution-database.htm). While this database covers OECD member countries, recent efforts have allowed extending the country coverage to five of the seven emerging economies covered by this paper. Further investigations have allowed to calculate income distribution and poverty estimates as close as possible to concepts and definitions adopted in the OECD Income distribution and poverty database (IDD) for seven Latin American countries (i.e. Bolivia, Dominican Republic, Ecuador, Panama, Paraguay, Peru and Uruguay) on the basis of country micro data available through CEDLAS. Due to differences in survey methodologies and questionnaires design (e.g. in terms of the recording of taxes paid and transfers received and paid by households), estimates for these Latin American countries are, however, not fully comparable to those available for OECD countries.

16. Based on the latest available and most harmonised and comparable data, Figure 3.1 shows that Gini coefficients of income for emerging economies are much higher than in the OECD area on average, and also well above the level observed in the five OECD countries where income inequality is highest. While the average Gini coefficient is 0.32 in the OECD area – 0.25 among the five most equal countries and 0.40 among the five most unequal ones – it is close to 0.50 in Brazil, Colombia,⁶ Costa Rica India, and China (0.47, 0.49, 0.48, 0.49 and 0.51, respectively), and over 0.60 in Indonesia and South Africa (0.61 and 0.62 respectively). Income inequalities in Latin American countries seem lower than in emerging economies, with the exception of Panama.

6. Differently from all other countries, the data for Colombia used in this paper refer to household income net of worker's social insurance contributions but gross of direct taxes paid by households. As a result, the Colombian measure on household income and income inequality presented here are not fully comparable to those for other countries. Income taxes on individuals in Colombia are small but not insignificant (1.2% of GDP according to *OECD Revenue Statistics*); and sensitive analysis using alternative data suggest that the impact of these taxes in reducing income inequality would be small (possibly by 0.001 Gini points).

Figure 3.1. Income inequality levels

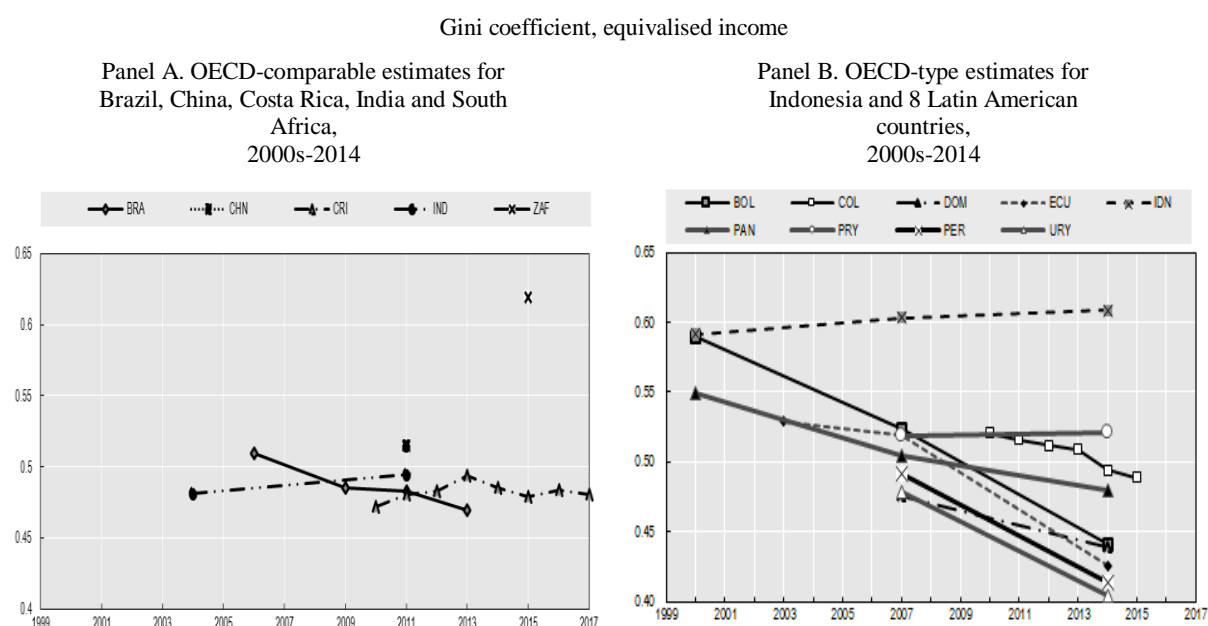
Gini coefficient, 2014 or latest year available



Note: The Gini coefficients represented with a light grey column are not strictly comparable with the ones in dark grey. In 2017, the OECD's five most unequal countries were Chile, Mexico, Turkey, the United Kingdom and the United States. The OECD's five most equal countries are the Czech Republic, Denmark, Iceland, the Slovak Republic and Slovenia.

Source: OECD Income Distribution Database for Brazil, Costa Rica, China, India and South Africa; OECD-type estimates based on Gran Encuesta Integrada de Hogares (GEIH) for Colombia; and on the Indonesian Family Life Survey (IFLS, which exclude some of the country's eastern islands) for Indonesia. Latest years refer to 2017 for Costa Rica; 2015-2016 for Colombia; 2014-2015 for South Africa; 2013 for Brazil; 2011 for China, India and Indonesia; and 2000 for Argentina. For OECD countries, years refer to 2014 for Australia, Finland, Hungary, Israel, Korea, Mexico, Netherlands, the United States; 2012 for Japan; and 2013 for other OECD-countries.

17. When using comparable income concepts and definitions, trends in the most recent years show a decline for Brazil, and stagnation in the other countries for which trends are available (Figure 3.2). In Brazil, the Gini coefficient declined by 4 points between 2006 and 2013. Income inequality in Indonesia (whose data are however based on non-official surveys not nationally representative) and India has been more stable, with an increase of around 1.5 point in Gini, which is small compared to other countries. Costa Rica shows fluctuations in the Gini since the year 2010, increasing slightly between 2010 and 2013, and declining more recently (Panel A). Estimates point to falling income inequalities for Bolivia, Colombia, the Dominican Republic, Ecuador, Panama, Peru and Uruguay, and stability in Paraguay (Panel B).

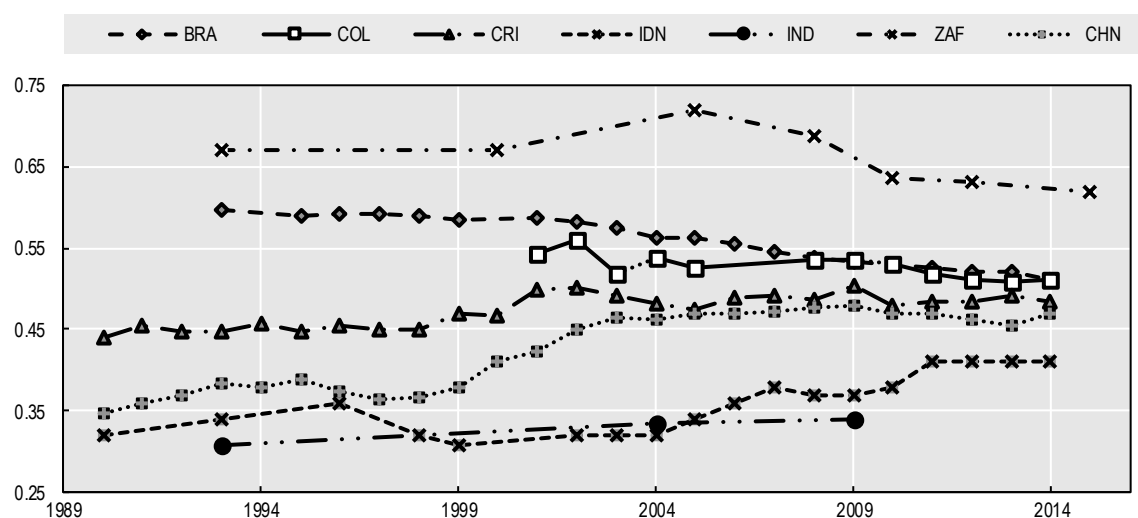
Figure 3.2. Trends in income inequality

Note: Estimates in Panel B are not strictly comparable with those in Panel A.

Source: OECD Income Distribution Database for Brazil, Costa Rica, China, India and South Africa; OECD-type estimates based on Gran Encuesta Integrada de Hogares (GEIH) for Colombia; and on the Indonesian Family Life Survey (IFLS) for Indonesia. For other Latin American countries, calculations are based on national micro-data available through CEDLAC (Socio-Economic Database for Latin America and the Caribbean). While investigations for inclusion in the OECD IDD have been conducted for countries in Panel B, these were so far unsuccessful due to limited availability of data and metadata. For these countries OECD-type estimates, which are not strictly comparable with OECD IDD data, were calculated and are presented in this document.

18. Longer term changes in income inequality since the early 1990s, based on different but less comparable data sources, are also diverse across the emerging economies reviewed in this paper, with inequality decreasing in some and increasing in others (Figure 3.3). This contrasts with trends of increasing inequality in most OECD countries observed since the mid-1980s. Inequality decreased in particular in Brazil since the mid-1990s, as well as in other Latin American countries such as Bolivia, Argentina and Chile (Lopez-Calva and Lustig, 2010). Income inequality was broadly stable in Costa Rica since 2010, while in Colombia the rise in early 2000s was reversed in the 2010s. In contrast, income inequality in China, India and South Africa increased during the 1990s, until the mid-2000s, before levelling off and stabilising in the case of China and India (see also OECD, 2015a). Indonesia has become more unequal over time, particularly since the mid/late 2000s when looking at consumption-based inequality. It is important to bear in mind that long-term trends for emerging economies refer to different income definitions and are not harmonised (see Annex B).

Figure 3.3. Trends in Gini coefficient, 1990-latest year available



Note: The Gini coefficients are based on per capita incomes for all countries, except for India and for Indonesia for which per capita consumption was used. Gini coefficients are not comparable across countries.

Source: World Bank, Poverty and Inequality Database for India, Leibbrandt and OECD estimates based on LIS for South Africa; OECD (2015a), All on Board: Making Inclusive Growth Happen in China, OECD Publishing for China; SEDLAC (Socio-Economic Database for Latin America and the Caribbean) Database for Brazil and Costa Rica.

3.2. Income inequality in urban/rural areas

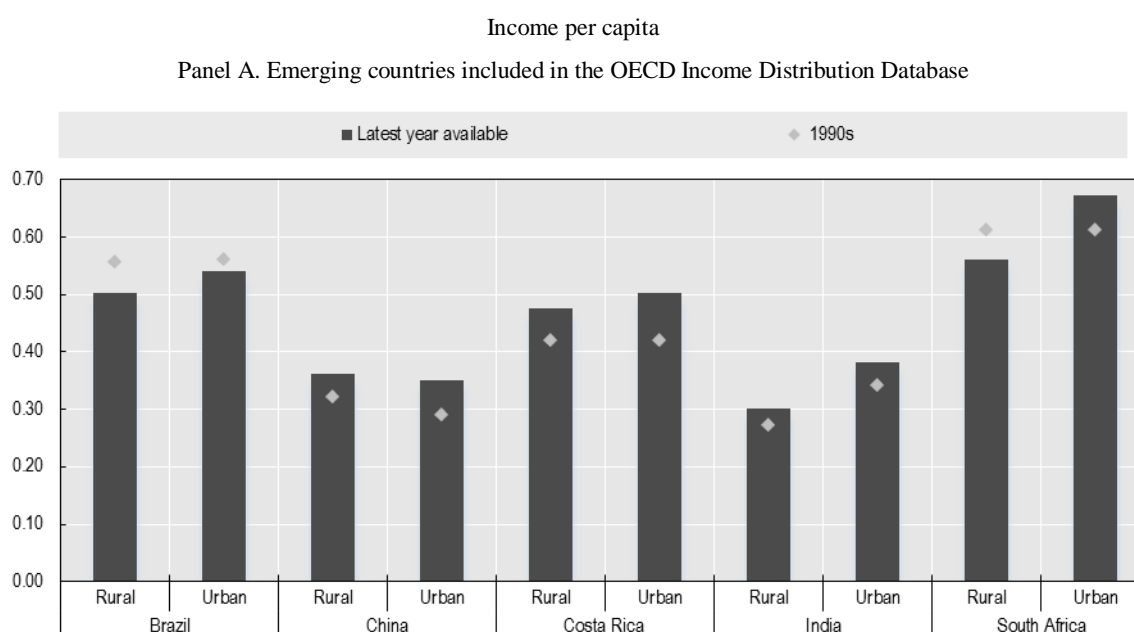
19. The economic factors behind high income inequality in the EEs tend to differ from those at work in most OECD countries. Persistently large geographical differences in economic performances play a particularly important role in shaping income inequality in all EEs, reflecting the interplay of geographic, historical and institutional factors such as weak resource endowments and distance from markets, which constrains development in lagging regions. It also tends to be closely intertwined with other key drivers of income inequality, namely ethnic disparities, alongside disparities in educational outcomes and in labour market conditions.

20. Income inequality within both rural and urban areas is higher in Brazil and South Africa than in other countries but trends differ greatly. Inequality tends to be higher in urban areas than in rural areas in all countries except China, Bolivia, Panama, Paraguay and Peru (Figure 3.4). In Brazil, Bolivia, Colombia, Ecuador, Indonesia and Peru, the fall of Gini coefficient was experienced in both rural and urban areas, but was more marked in rural areas in Brazil, Colombia and Indonesia. By contrast, China, Costa Rica and India experienced an increase in income inequality in both rural and urban areas since the early 1990s.⁷ For South Africa, Panama and Paraguay, the evidence is more mixed: in South Africa urban inequality rose over time, in parallel to an easing of the rural divide, while the opposite is true in Panama and Paraguay.

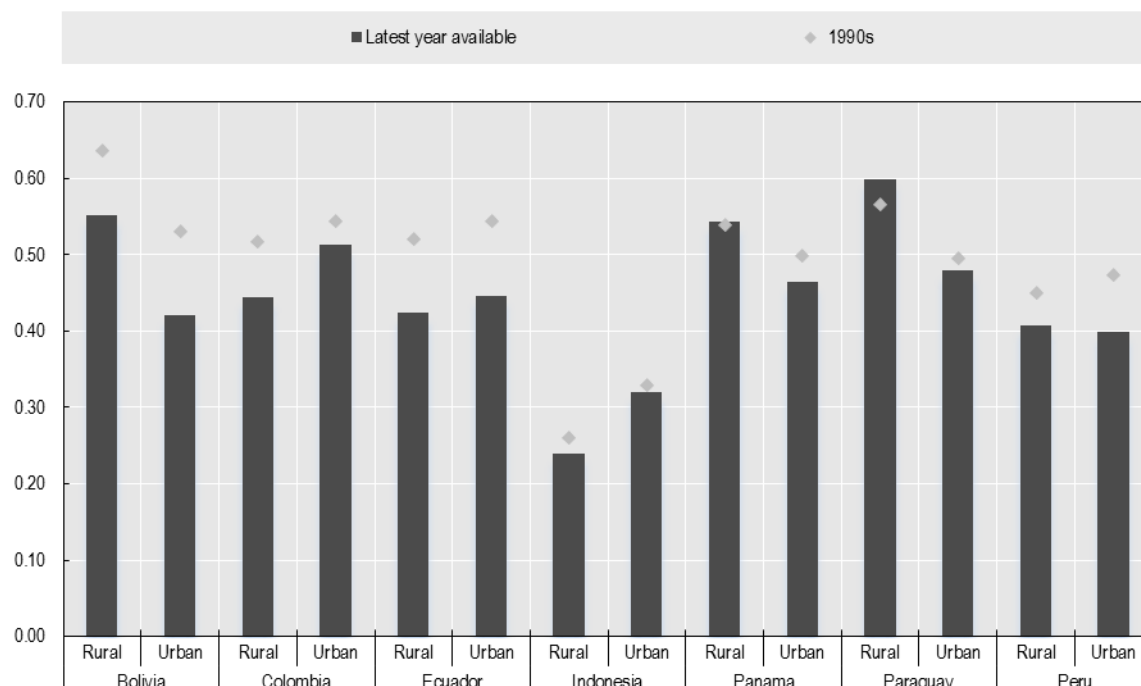
7. Using income rather than consumption inequality would alter the rural-urban divide. For instance, income inequality in rural India is found to be higher than the income inequality in urban India in 2011 (Azam and Bhatt, 2016).

21. The forces driving observed patterns of spatial inequality vary. For China, growing spatial inequality stems mainly from large differences within provinces rather than a divide across provinces. OECD analysis (2009) also highlights large disparities between rural and urban populations within provinces in terms of in access to basic services. For example, while the permanent urban population (which excludes most migrants) is covered by medical insurance, the vast majority of the rural population is not; access to education is also very unequal (Herd, 2010). By contrast, trends in India reflect the accentuation of imbalances between the country's states. Indeed, there are growing concern in India that the benefits of growth were concentrated in the richer states, contributing to wider gaps with the poorest and most populous states (i.e. Bihar, Madhya, Pradesh, Uttar Pradesh and Kerala). Where historically disadvantaged ethnic, racial, and social groups are concentrated in particular regions, group-based inequality are reflected in regional inequalities (World Bank, 2006). This pattern is also important for South Africa, where geographical divides mainly reflect inequality between races. Although real incomes have been rising for all groups since the end of apartheid, many South Africans still live in extreme poverty. For all poverty thresholds, Africans are much poorer than Coloured people, who are very much poorer than Indians/Asians, who in turn are poorer than whites. According to Leibbrandt et al. (2010), these factors explain most of the changing patterns of income inequality according to rural and urban "geotypes" in South Africa.

Figure 3.4. Gini coefficient in urban and rural areas for selected emerging countries



Panel B. Other emerging countries



Note: Data for Brazil refer to 1992 and 2008; for China refer to 1993 and 2005; for Costa Rica refer to 1990 and 2013; for India refer to 1994 and 2005; for South Africa refer to 1993 and 2008; for Bolivia refer to 1997 and 2013; Colombia refer to 1992 and 2014; for Ecuador refer to 2000 and 2014; for Indonesia refer to 1993 and 1999; for Panama refer to 2001 and 2014; for Paraguay refer to 1999 and 2014 and for Peru to 1997 and 2014. Countries grouped in Panel A are the ones for which income inequality and poverty data have been included in the OECD Income Distribution Database (OECD IDD). While investigations for inclusion in the OECD IDD have been conducted for countries in Panel B, these were unsuccessful due to limited data and metadata availability. For these countries OECD-type estimates, which are not strictly comparable with OECD IDD data, have been calculated and are presented in this document.

Source: CEPAL for Bolivia, Colombia, Costa Rica, Ecuador, Panama, Paraguay and Peru; OECD-EU Database on Emerging Economies for the remaining countries.

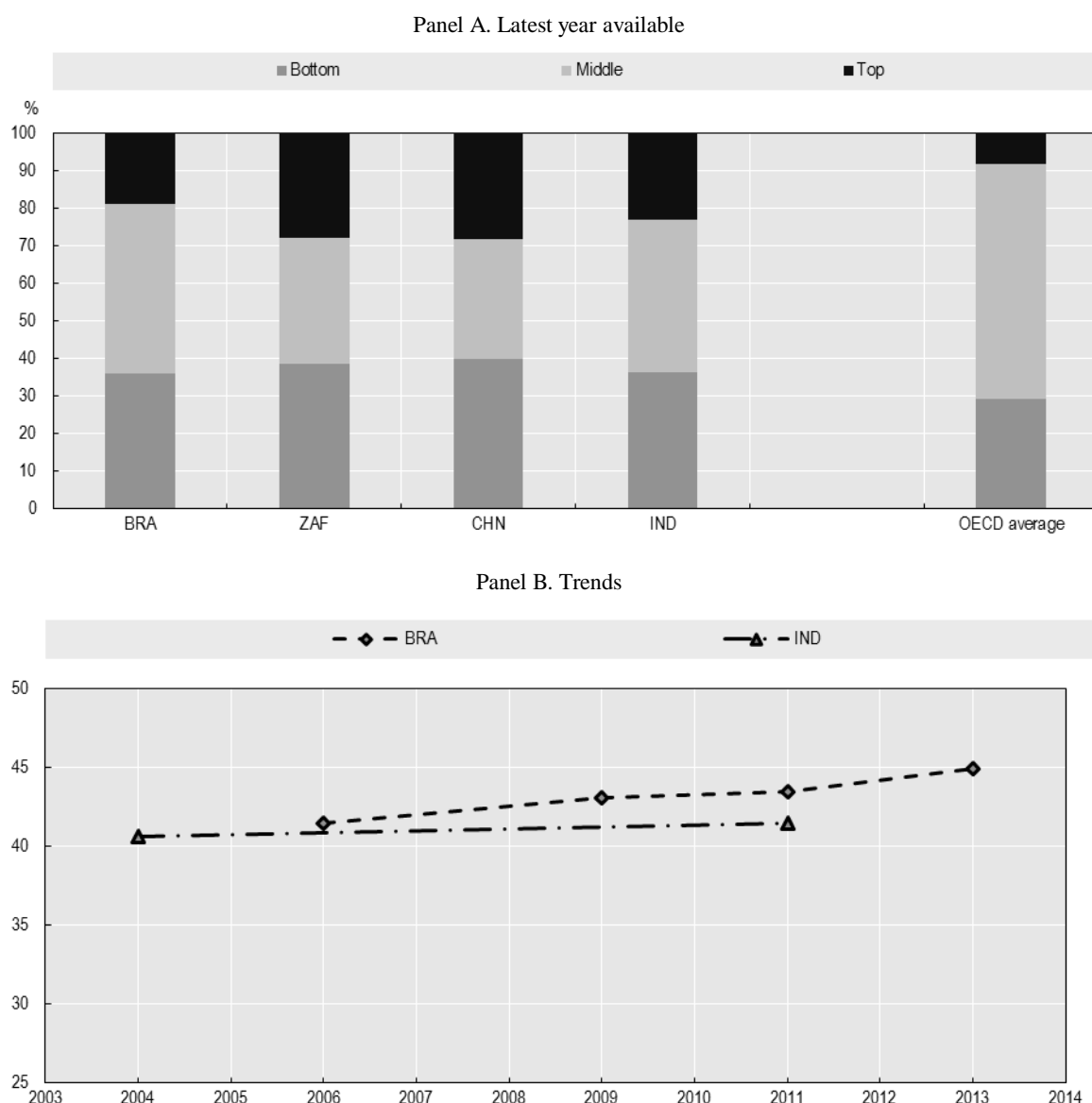
3.3. Size of the middle class and top incomes

22. In many emerging economies, the recent debate has been about the rise of a new middle class (Kharas, 2010). This discussion is related to the fact that when looking at the income distribution among 'world citizens', the middle of the world income distribution showed significant real income growth between 1988 and 2008 (Lakner and Milanovic, 2013). The growth of this "middle class" was driven mainly by very high per-capita income growth rates in large countries such as China, India and Indonesia. In Latin America, the rise of the middle class has been associated with higher years of schooling, labour market formalisation, female labour participation and family and demographic dynamics (Ferreira et al., 2013). Between 1988 and 2008, real income growth was most significant at the very top and the middle of the world income distribution. This contrasts with the discussion in OECD countries about a "shrinking" middle class (OECD, 2019 (forthcoming)).

23. While the middle class comprises the majority of the population in OECD countries, in emerging economies it is close to a third, except in Brazil where it is larger. Conversely, the upper class is at least twice as large in emerging economies as in the average OECD country (9%). When measuring the size of the middle class as the share of the population living in households with disposable income between 75% and 200% of the

median, Figure 3.5 Panel A shows that in China and South Africa the middle class (between 31.5-33.5%) is smaller than the lower class (close to 40% of the population). Only in Brazil and India, the middle class is the largest group comprising 45% and 41% of the population, respectively. In addition, the size of the middle-class has slightly increased in recent years in Brazil while it has declined in several OECD countries (e.g. the United States and Germany). India shows a relative stability of the middle class since the mid-2000s (Figure 3.5, Panel B).

Figure 3.5. Population share by type of income class

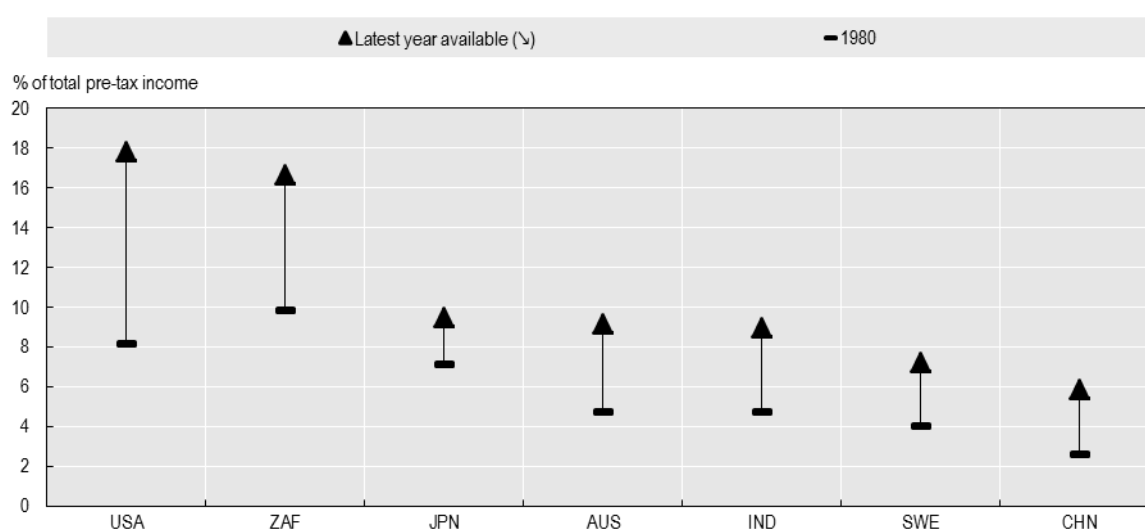


Note: In Panel A, data refer to 2013 for Brazil; to 2014-2015 for South Africa; to 2002 for China; and to 2011 for India. Middle class is defined as between 75% and 200% of median income; Bottom class as below 75% of median income and Top class as above 200% of median income.

Source: OECD Secretariat calculations based on data from LIS Data Centre.

24. In many OECD countries, rich households have been doing much better than both low- and middle-income families, leading to higher income inequality. In particular, the share of the richest 1% in total pre-tax income has increased significantly in most OECD countries in the past three decades. A similar pattern is also found in emerging economies. Drawing on data from the World Wealth and Income Database (www.wid.world), Figure 3.6 shows that the income share going to the richest 1% of the population in South Africa is similar to that for the United States, and also rising since the 1980s. In India, the share of the richest 1% in total pre-tax income has risen moderately over the past three decades and is similar to those of Australian and Japan. Finally, in China, while the share of the top 1% has been rising since 1980, it remains smaller than in OECD countries.

Figure 3.6. Share of pre-tax income going to the top 1% earners, 1980-latest year available



Note: The latest available year refers to 2014 for United States; to 2013 for Sweden; to 2010 for Australia and Japan; to 2003 for China; and to 1999 for South Africa and India.

Source: WID, The World Wealth and Income Database, www.wid.world.

Box 3.1. Wealth inequality in emerging economies

While statistics on income inequality are available for most emerging economies, although with the limits described in this section, information on wealth inequality in emerging economies is much sparser.

A first assessment of the data situation in this field has allowed identifying national statistics that could be used to derive information on the distribution of household wealth for India, China and Indonesia. However, a first analysis of the data also highlighted specific features that tend to bias downward measures of wealth inequalities for these countries. Some of these problems can be illustrated by the case of India and China.

- The Debt and Investment Survey, conducted by the India National Sample Organization, is the only source on Indian wealth statistics. This survey has been conducted every decade from 1961-62, and since 1981-82 also covers urban areas. Data from this survey have been used by the OECD to compute key indicators on

the distribution of household wealth for India in 2012-13. The 2012-13 survey is nationally representative, with a sample of 110 800 households, and covers most of components that are included in the OECD definition of "net wealth". Key indicators on the distribution of household wealth for India, based on the specifications detailed in the OECD Guidelines' for Micro statistics on Household Wealth (OECD, 2013), show, however, lower levels of wealth inequality in India than in most OECD countries. For example, while the mean to median wealth ratio, at 2.7, is close to the level observed, on average, across 18 OECD countries, the share of the bottom 60% of households is 25% (well above the value of 10% observed in the OECD average) while the share of the top 10% is 40% (well below the OECD average of 50%). These patterns seem to reflect a combination of high non-response rates for many wealth items and the under-coverage of more wealthy households by the survey.

- Preliminary estimates of wealth inequality in China have been computed based on the China Family Panel Studies (CFPS), conducted by the Institute of Social Science Survey at Peking University. This survey is nationally representative and has been conducted every other year since 2010. Data from the 2012 survey, which covers most of components included in the OECD definition of "net wealth", have been used to compute comparable indicators on the distribution of household wealth for China. While, as in the case of India, wealth inequalities are comparatively low when based on the original survey records, the picture changes when imputations (based on the methodologies used by Credit Suisse Research Institute) are applied to correct for item non-response, which is especially high for non-financial assets. In the case of land (which is very important for rural households but whose value is hard to measure as no legal market for land exist in China), 25% of the value of gross agricultural output is assumed to be attributable to land; this flow was then converted into a stock equivalent by assuming a 8% rate of return as in McKinley (1993) and Li and Wan (2015). For housing, the space (in square meters) of dwelling has been multiplied by the average unit value for the same type of housing reported at the community level. After such imputations, the wealth share of the bottom 60% of households declines from 15% to 10% while the share of the top 10% increases from 41% to 50%.

These and other survey features will need to be thoroughly assessed before estimates of wealth inequality for these countries could be compared with those for OECD countries and included in OECD Wealth Distribution Database (oe.cd/wealth).

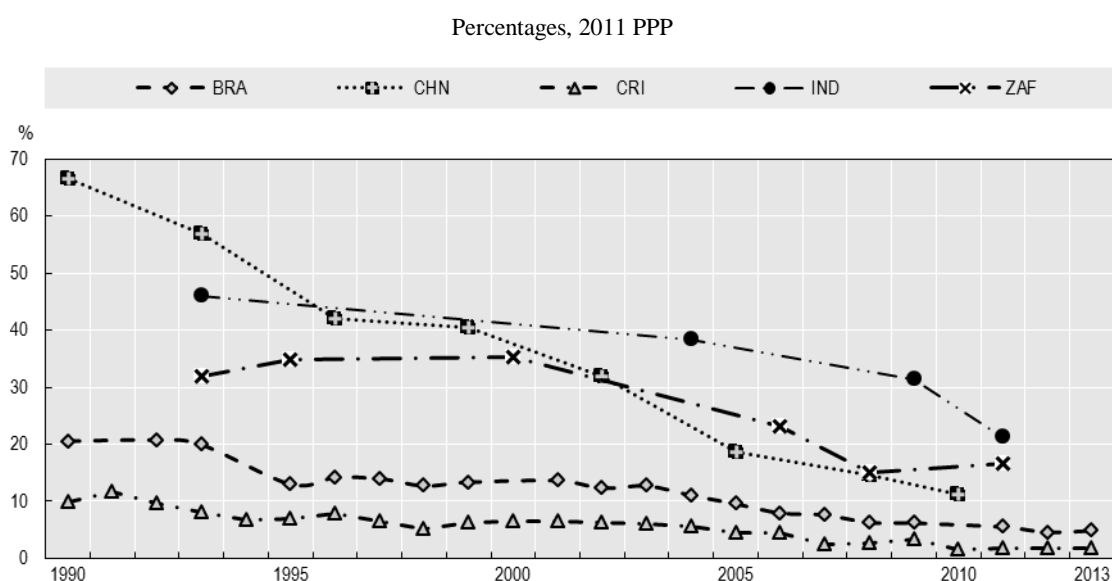
3.4. Income poverty

25. Poverty reduction has featured high on the agenda of the international community in the past two decades and this goal was consolidated in 2000 with the internationally agreed Millennium Development Goals (MDGs) and the pledge to halve extreme poverty and hunger by 2015. Since 2000, the developing world has been reducing the *extreme* poverty headcount (i.e. the share of people earning less than US\$ 1.9 per day, in 2011 prices) at about 1 percentage point per year; the goal of halving global poverty between 1990 and 2015 was achieved 5 years earlier than originally foreseen. Income inequality has entered the mainstream development policy agenda because changes in income distribution have even larger effects on measures of the depth and severity of extreme poverty than

GDP growth; in these conditions, growth becomes less effective in reducing extreme poverty in high inequality countries (Ravallion, 2017).

26. Traditionally, progress in poverty reduction in emerging economies, as in most of low and middle-income countries, has focused on poverty measured using an absolute threshold, i.e. a fixed standard of what households should be able to count on in order to meet their basic needs. Figure 3.7 shows that extreme poverty, measured as the poverty headcount ratio at USD 1.9 per day,⁸ is most widespread in India and South Africa, while being quite low in Costa Rica, in 2011. Figure 3.7 suggests a decrease in extreme poverty for all the countries shown since the 1980s.

Figure 3.7. Overall poverty trend – Poverty head-count ratio at USD 1.90 a day



Source: World Bank, Poverty and Inequality Database, <http://povertydata.worldbank.org/poverty/home/>.

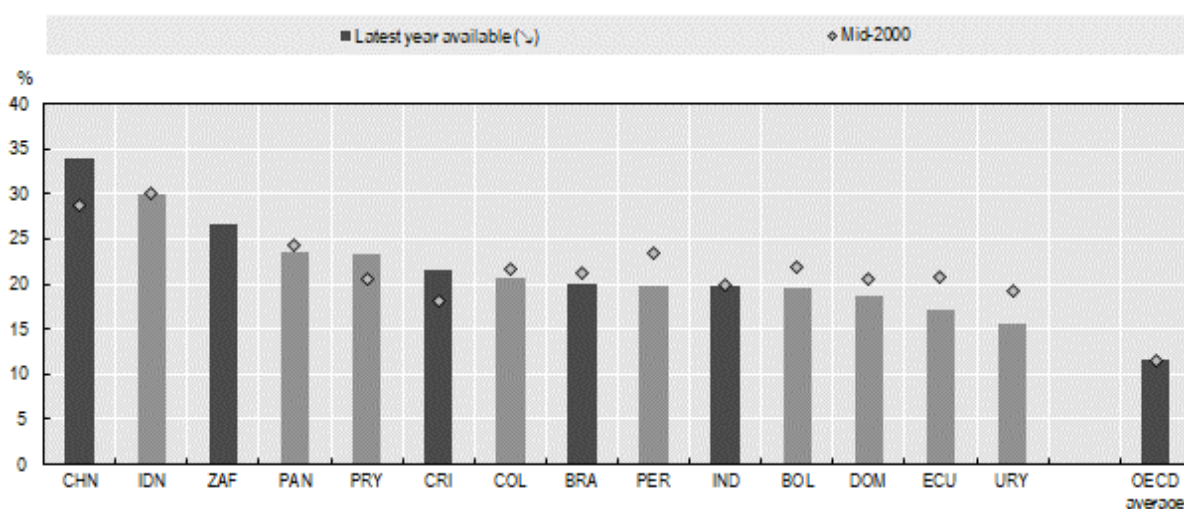
27. An alternative measure of income poverty is *relative* poverty. According to this concept, poor people are defined as those who are considerably worse off than the majority of the population. Relative income poverty measures tend to be more widely used in most OECD countries, where differences between standards of living and social exclusion are taking on greater importance, and where absolute poverty is becoming a smaller issue. However, relative poverty is a major concern also in emerging economies. Using the same definition of poverty as for OECD countries, relative poverty rates (set at 50% of the national median equivalised disposable income of the entire population) in emerging economies are on average twice as high as in the OECD area, and often well above the level prevailing in Mexico, the OECD country with the highest rate of relative poverty.⁹ The share of people in relative poverty is highest in Indonesia, China and South Africa, at

8. The original dollar-a-day line, created by Ravallion et al. (1991), used 1985 PPPs. Since then, PPPs were revised in 2005 (when the line was increased to USD 1.25), and in 2011 (when the line became USD 1.90 a day).

9. Several researchers have suggested to use hybrid or mixed poverty schedules for developing countries and it is thus relevant to use relative poverty lines in countries that have already achieved significant poverty reduction (Garroway and de Laiglesia, 2012).

30%, 29% and 27% respectively, while it is lowest in Brazil and India, at around 20%, a level similar to that experienced in Mexico. In recent years, relative poverty declined in Colombia and Brazil, while stagnated in Indonesia and Costa Rica (Figure 3.8). When considering other Latin American countries, Panama and Paraguay have relative poverty rates slightly higher than Colombia; Peru and Bolivia similar to India; and the Dominican Republic, Ecuador and Uruguay below that of India, and yet above the OECD average level. Relative poverty has also declined in these countries, except in Paraguay.

Figure 3.8. Relative poverty, mid-2000 and latest year available



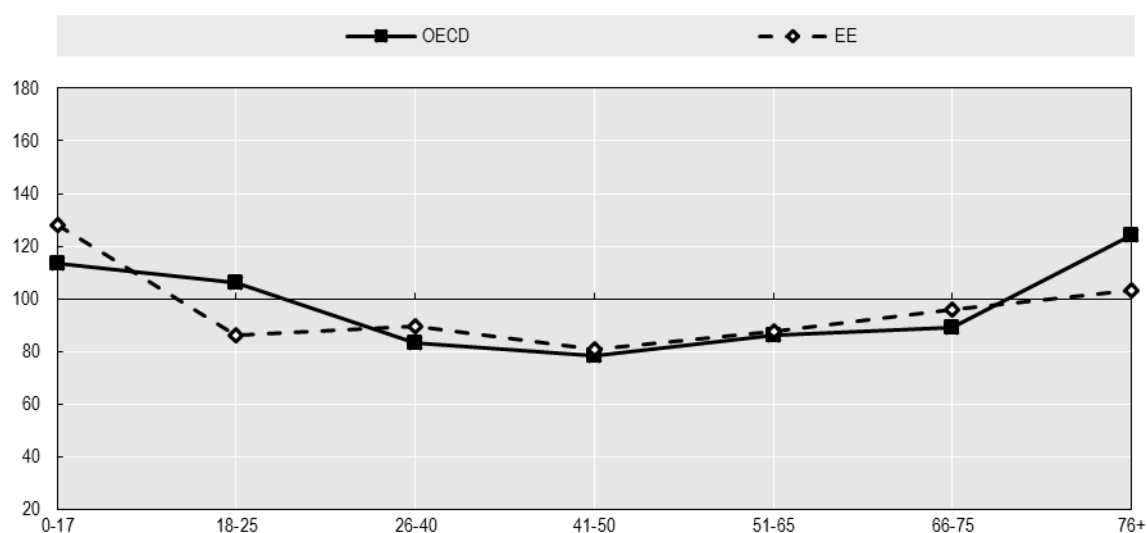
Note: Relative poverty refers to the share of persons living in households with less than half of the median income in each country. Estimates represented by a light grey column are not strictly comparable with those shown in dark grey.

Source: OECD IDD for Brazil, Costa Rica, China, India, South Africa and OECD average countries. OECD-type estimates based on Gran Encuesta Integrada de Hogares (GEIH) for Colombia, and on the Indonesian Family Life Survey (IFLS) for Indonesia. Estimates based on micro-data from the main household surveys for Argentina, Bolivia, Dominican Republic, Ecuador, Panama, Paraguay, Peru and Uruguay, as available through CEDLAS (Centre for Distributive, Labor and Social Issues in Latin America, Universidad Nacional de La Plata, Argentina). Years refer to 2017 and 2010 for Costa Rica; 2013 and 2011 for Indonesia; 2013 and 2006 for Brazil; 2015-16 and 2010-11 for Colombia; 2015 for South Africa; 2011 and 2004 for India; 2011 for China; 2014 and 2007 for Bolivia, Dominican Republic, Ecuador, Panama, Paraguay, Peru and Uruguay; 2000 for Argentina; and 2012 for OECD average, except 2014 for Hungary, 2013 for Finland, Netherlands, Israel, Korea and United States, 2011 for Canada.

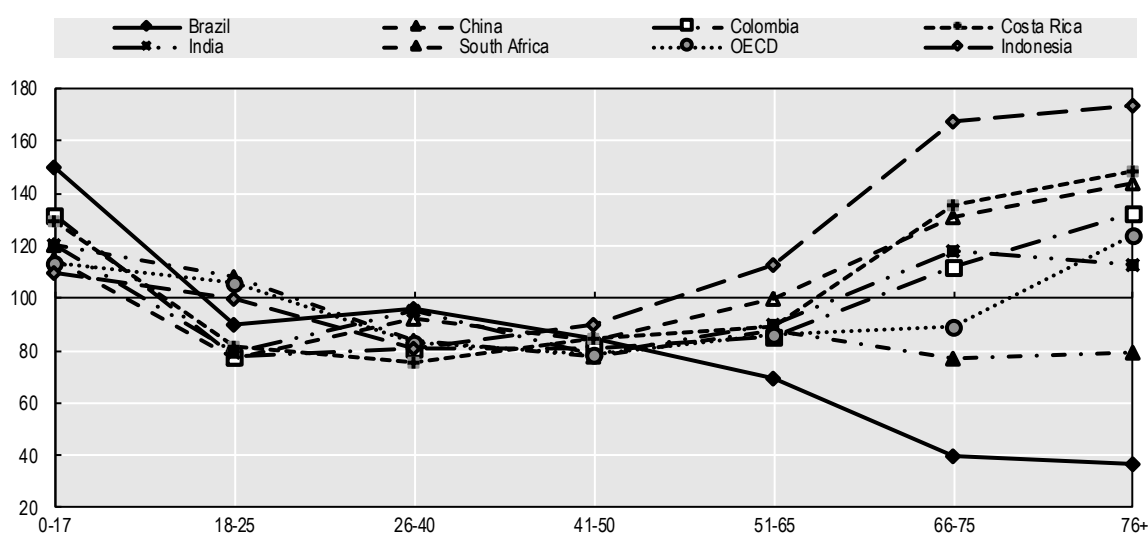
28. Similarly to OECD countries, relative poverty in emerging economies shows a U-shaped age pattern, tending to be higher among children and the elderly (Figure 3.9). Country poverty profiles by age differ across countries, however. In South Africa and Brazil, where old-age pensions are more common, relative poverty is highest among children and youth, and tends to decrease continuously with age, similar to France. Indeed, in South Africa the poverty risk for people aged below 18 is 20% higher than for the average population, while this risk is 20% lower for those aged 75 and over. In Brazil, the age gradient in relative poverty rates is even steeper: the poverty risk is 50% higher than for the average population for those aged below 18 and 65% lower for those aged 75 and over. A selection effect for the elderly might occur in emerging economies, with only richer people surviving to older ages. For instance, in India relative poverty is highest among the young and also relatively high for those 65-75, although it decreases for those above 75. In the remaining countries, but especially in China, similarly to Japan and Korea, the elderly suffer from very high poverty rates.

Figure 3.9. Relative poverty, age group, latest year available

Panel A. Relative poverty risk by age group. Poverty rate for the entire population in each country = 100



Panel B. Relative poverty risk by country and age group. Poverty rate for the entire population in each country = 100



Source: OECD IDD for Brazil, Costa Rica, China, India, South Africa and the OECD average, OECD-type estimates based on Gran Encuesta Integrada de Hogares (GEIH) for Colombia, and on the Indonesian Family Life Survey (IFLS) for Indonesia. EE (i.e. Emerging Economies) is computed as the average of values for Brazil, Costa Rica, China, India and South Africa. Data refer to 2017 for Costa Rica; 2015-16 for Colombia, 2014-2015 for South Africa; 2013 for Brazil; 2011 for China and India.

29. Similarly, poverty trends by age have been diverse in recent years. While in the OECD, poverty rates increased for children and youth between 2007 and 2013, in Costa Rica the relative poverty risk increased for the elderly between 2010 and 2017 (see Annex B).

3.5. Social protection and redistribution

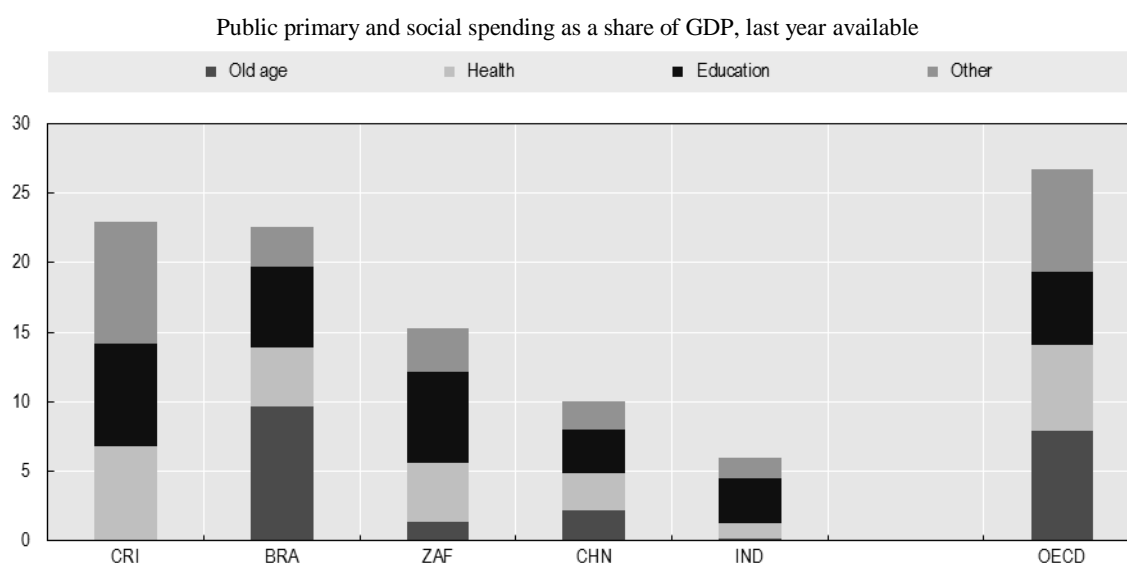
30. The redistributive potential of a country is determined first and foremost by the size and composition of its budget and how government spending is financed. Public social spending as a share of GDP tends, on average, to be comparatively low in emerging economies, reflecting partly their lower revenue base and lower per capita income. However, there is a wide variation across countries, ranging from comparatively low levels of public social spending in India¹⁰ to levels close to the OECD average in Brazil. Public social spending in China is considerably lower than in the OECD and other EEs, but comparable to average social spending in the Asia/Pacific region (OECD, 2014a). In comparison, tax revenues as a percentage of GDP also tend to be below the OECD average of 34.2% in 2013 in the seven emerging economies, with the exception of Brazil.

31. Public spending on cash benefits (such as old-age pensions and income support to the working-age population) is on average much lower in emerging economies than in OECD countries, and this explains the bulk of the differences in overall public social spending. Furthermore, spending on cash benefits tends to vary much more than does spending on health care and education both across emerging economies and in comparison to the OECD average. Spending on cash benefits is particularly high in Brazil, where public pension benefits account for most of such spending. In fact, public pension spending as a share of GDP in Brazil is higher than the OECD average. This is quite remarkable since the Brazilian population is relatively young, with eight persons aged 20-64 to each person aged 65 or more, twice the OECD average (OECD, 2014b).

32. In South Africa, public spending includes important support programmes for the working-age population, such as the Community Work Programme, the Extended Public Works Programme and the Child Support Grant. Public pension spending is low in comparison with some other emerging economies, as it is focused on social pensions with basic amounts paid to the poor elderly (OECD, 2014a). Contributory pensions are available only to public servants who belong to the Government Employees Pension Fund (Inchauste et al., 2015). In Indonesia, a considerable part of public social protection is provided through energy subsidies rather than cash transfers (Afkar et al., 2015). However, the energy subsidies were scrapped in early 2015 and Indonesia plans to use such social savings for infrastructure investment.

33. In most countries spending on healthcare and education ranges between 3% and 5% of GDP, which is less than the OECD average of around 6%. The main exceptions are Costa Rica and South Africa, which spend considerably more on education, and Indonesia and India, which spend significantly less on health care (Figure 3.10).

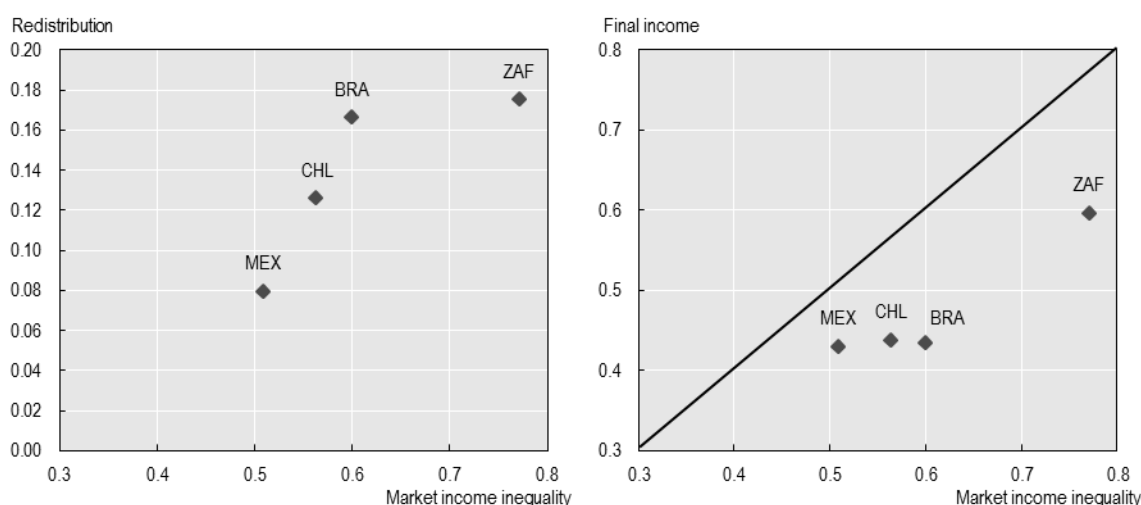
10. The available data on public social spending in India is likely to underestimate the public social effort, as outlays by state and other local governments are under-reported (OECD, 2014a).

Figure 3.10. Size and composition of government social budgets

Source: OECD (2014), Social Expenditure Database. Data for South Africa are from National Budget 2014, Estimates of National Expenditure, National Treasury and World Health Organisation (WHO). Data for China and India refer to Asian Development Bank's Social Protection Index (SPI) Database except for Health where they refer to World Health Organization Global Health Expenditure Database (WHO) and Education from China Census Bureau and UNESCO respectively. Data for Brazil refer to Federal social expenditure from Ipea (Instituto de Pesquisa Econômica Aplicada). Data for Costa Rica: ECLAC – CEPALSTAT. The category “Other” includes old age, other social security and housing. Data for Costa Rica refers to 2012; Data refer to 2010 for Brazil, and to 2009 for China and India. For OECD countries, data for Australia, Canada, Chile, Israel, Korea, New Zealand, the United States refer to 2012 otherwise they refer to 2011. Data on public spending on Education are not available for Greece, Luxembourg and Turkey. Therefore, data for these countries are not comparable with other countries. Data for Brazil refer to Federal social expenditure from Ipea (Instituto de Pesquisa Econômica Aplicada) report [Abrahao de Castro, J., J. Aparecido Carlos Ribeiro, J. Valente Chaves and B. Carvalho Duarte (2012), Gasto Social Federal: prioridade macroeconômica no período 1995-2010, No. 9, Brasília, September] except for health where data are for general government expenditure on health from WHO. Data exclude social spending by local authorities, including on non-federal civil servants. Benefits for civil servants (most pensions) amounts to 2.3% of GDP (from the description of the Brazilian system from Ministério da Previdência Social, 2009, Overview of Social Welfare in Brazil, 2nd Edition, January as in www.previdenciasocial.gov.br/arguivos/office/3_091113-150152-707.pdf%20-%202009), it shows that there are as many local government pensioners as civil servant pensions. Hence an estimation of 2 to 2.5% of GDP is not taken into account from the data. The policy areas covered include old age, survivors, incapacity-related benefits, family, health, active labour market policies, unemployment, housing and other social policy areas. Old age refers to cash old age and survivors pensions.

34. Previous OECD work (OECD, 2015c) showed that income redistribution tends to be higher in more unequal countries. The level of income redistribution and the size of the budget allocated to social spending (as a share of GDP) are closely related to each other. However, differences across countries suggest that institutional factors such as the composition and design of such policies and their interaction with socio-economic circumstances also affect the level of redistribution. (Figure 3.11).

Figure 3.11. Inequality and redistribution, 2010



Note: Data refer to 2009 for Brazil and Chile; and to 2010 for Mexico and South Africa. The only contributory pensions in South Africa are for public servants who must belong to the Government Employees Pension Fund; they were not included in the analysis for South Africa and are not shown here. The scenario for South Africa assumed free basic services are direct transfers. Redistribution measures the difference between Gini of market and final incomes.

Source: Lustig, N. (2015), “The Redistributive Impact of Government Spending on Education and Health: Evidence from 13 Developing Countries in the Commitment to Equity Project”, Chapter 17 in B. Clements, R. de Mooij, S. Gupta and M. Keen (eds.), *Inequality and the Role of Fiscal Policy: Trends and Policy Options*, International Monetary Fund, Washington, forthcoming.

3.6. Improving social protection and redistribution

35. Social protection policies have been strengthened in many EEs, with several countries making their cash transfers more generous and others extending coverage of unemployment benefits and health insurance, and expanding educational opportunities.

36. In all emerging economies, cash transfers play an important role in equalising distribution and alleviating poverty. These programmes can be unconditional, such as the Child Support Grant (CSG) in South Africa or the *Dibao* minimum subsistence benefit in China, or conditional, such as Brazil’s *Bolsa Familia* and Mexico’s *Prospera* (former *Oportunidades*) schemes, which provide cash transfers to low-income households that are conditional on school attendance and health check-ups.

37. Cash transfers are an important instrument to redistribute resources from the upper to the lower end of the distribution. Conditional cash transfers may be particularly well suited to reducing inequality and promoting social mobility among beneficiaries in many emerging economies. The recent refinements to the programmes in Mexico and Brazil have further increased the programmes’ generosity, lifting all participants whose income was below the national poverty line above that threshold. While their objective is to reduce extreme poverty, they can also be an important resource to help workers make better employment choices and facilitate more effective job search. Conditional transfers (CTs) can also promote access to education and health care of workers and their families, with positive effects on human capital formation and future labour market outcomes. At the same time, because of their small size and conditionality, the impact on overall poverty reduction is limited. Likewise, evidence of impact on education and health outcomes

remains mixed: while there is evidence on increased enrolment and reduced school drop-out there is less evidence on improved learning outcomes. This shortcoming points to the importance improving access to good quality health and education services (Bastagli, 2010).

38. Policy makers need to take into account the full range of available options and carefully assess their costs and benefits, when introducing or developing any social protection programmes. The options to consider include:¹¹

- targeting support by concentrating on the most vulnerable groups;
- identifying how CTs can provide resources to help workers make better labour market choices and support more effective job search combined with labour market policies to reduce informality (see Section 4);
- unifying separate programmes or combining different policies under a common umbrella (this may include sequencing between measures, e.g. starting with targeted measures, such as CTs, while establishing the pre-conditions for creating a broad-based unemployment benefit scheme);
- assessing the use of mandatory self-insurance based on individual saving accounts for those who can afford it while providing a redistributive component for those who cannot rely on individual savings (OECD, 2011b, Chapter 2).

39. Social welfare programmes could be further strengthened by appropriate targeting and payment mechanisms, better management structures and better design of conditionality, and by better implementation of the conditionality rules. In practice, however, the task of identifying the population in need is difficult. In addition, there are often trade-offs between reducing exclusion errors and improving efficiency. In South Africa, the take-up rate of CSG is only 60%. To tackle such issues, some countries such as Indonesia rely on “proxy” means-tests that use available information on household characteristics, while efforts to develop single registries of vulnerable households could result in better cost-effectiveness (OECD, 2015d). South Africa and Brazil use income declarations, which may be less effective as they are prone to errors or under-declaration. In some countries, irregular monitoring of conditionality has implications for non-compliance (Bastagli, 2010).

40. In many emerging economies, the coverage of the unemployment insurance system needs to be widened to help workers cushion against a transitory loss of income. The share of the unemployed covered by unemployment benefits is much lower than in advanced economies, generally less than 15% (OECD, 2011b). While these low coverage rates are explained by different factors (e.g. strict eligibility rules in China; an obligation to be affiliated to the social security schemes in several countries), it implies low income support for the unemployed in most of these countries. Furthermore, these schemes tend to be less generous than in the OECD, with lower replacement rates and shorter duration of entitlements in most emerging economies (OECD, 2015c). In many countries, income support for the unemployed is restricted to formal workers: in Brazil, for instance, it applies only to formal workers who were dismissed without just cause, and to workers who lost their jobs when their firms closed down, thus excluding the majority of the unemployed. The share of informality in these countries is large but diverse (OECD, 2015f): informal

11. This section is based on Chapter 7 of *In It Together: Why Less Inequality Benefits All*, OECD (2015d).

employment is highest in India (above 70%) and lowest in urban China (around or less than 15%) while South Africa, Costa Rica and Brazil have similar levels of informality (between 35% and 40%). Improving benefit administration, strengthening incentives for working formally and targeting benefits to those most in need are key priorities in these countries (OECD, 2011b, Chapter 2).

41. In other countries with unemployment insurance, fragmentation remains a challenge. In China, many workers covered by insurance do not receive benefits, and many local governments do not require employers to affiliate migrant workers to unemployment insurance schemes. As a result, the unemployment benefit system covers less than half of the urban working population. As a policy response, provincial governments have been asked to take more responsibility for social insurance from local city schemes (OECD, 2015a).

42. One important challenge in designing an adequate and effective system of unemployment benefits is to strike the right balance between protection and work incentives. The latter encompass incentives to participate in the labour market and, crucially, the choice of formal over informal employment. Eligibility conditions, generosity and duration of benefits should be set at a level that does not discourage formal employment. Adequate unemployment benefits should be conditional on work-availability conditions and be part of a well-designed “activation” package (OECD, 2010). The introduction of a system of unemployment benefits based on individual savings accounts in Chile is one example of reforms that aim to strengthen the link between benefits and individual incentives.

3.7. Expanding the redistributive capacity of the tax system

43. Enhancing the distributive capacity of the tax system requires improving revenue collection procedures and strengthening the extent to which taxpayers comply voluntarily with their obligations. Fighting against corruption would also help improve tax collection. In Colombia, for instance, the tax administration has little effective control over customs administration due to a lack of personnel and other constraints, which led to very high VAT evasion on imports. More inspection of taxpayers requires more technical capacity and personnel to take advantage of information technologies to detect potential tax fraud. Tax fraud penalties could also be increased, by following general practice in OECD countries and by making domestic and offshore tax evasion a criminal offence (OECD, 2015b).

44. In the mid-term, efforts for stronger redistribution in emerging economies require a change in the structure of the tax system. Special attention should be given to striking a better balance between tax revenue from personal income and property taxes, on the one hand, and consumption taxes, on the other. Broadening tax bases could also contribute to meeting objectives on efficiency, growth and distribution. South Africa, since the end of apartheid, focused on broadening the tax base and building an efficient tax administration to generate the resources needed to expand the social safety net for the poor. As a result, South Africa relies more on direct taxes – personal income tax (PIT), corporate income tax, and payroll tax – than do other EEs, while the top earners pay a much higher fraction of the overall PIT (Inchauste et al., 2015).

45. Finally, in many EEs the personal income tax could be made more progressive and exemptions for higher income groups removed. Colombia took a step in this direction with the 2012 reform, which implemented a minimum personal income tax (IMAN) as a cap on

some exemptions, increasing the effective tax rate paid by high-income households¹² (OECD, 2015c). India had ambitious plans to reform income tax and make it more progressive, via a proposed Direct Tax Code Bill that aimed at reducing the corporate income tax rate to 30%, removing some tax allowances and widening income brackets. For individuals, the lowest marginal tax rate currently applied is over 2.5 times the average wage, or three times GDP per capita, a very high level compared to Brazil, China and South Africa (Gandullia et al., 2012). The Direct Tax Code Bill lapsed, however (OECD, 2014b). China recently strengthened redistribution by enacting measures for better tax collection and implementing property taxes. The guidelines issued in 2013 also called for increased social expenditure (from 36% of government outlays in 2011 to 38% by 2015), with an emphasis on low-income regions through intergovernmental transfers. As in South Africa, effective implementation at the local level is likely to be critical to effectively functioning redistributive policies, especially in big, expanding urban areas.

12. Colombia has also enacted a new wealth tax as of January 1st 2015 for those above a certain threshold of tax net equity.

4. Inequalities in other dimensions of people's life

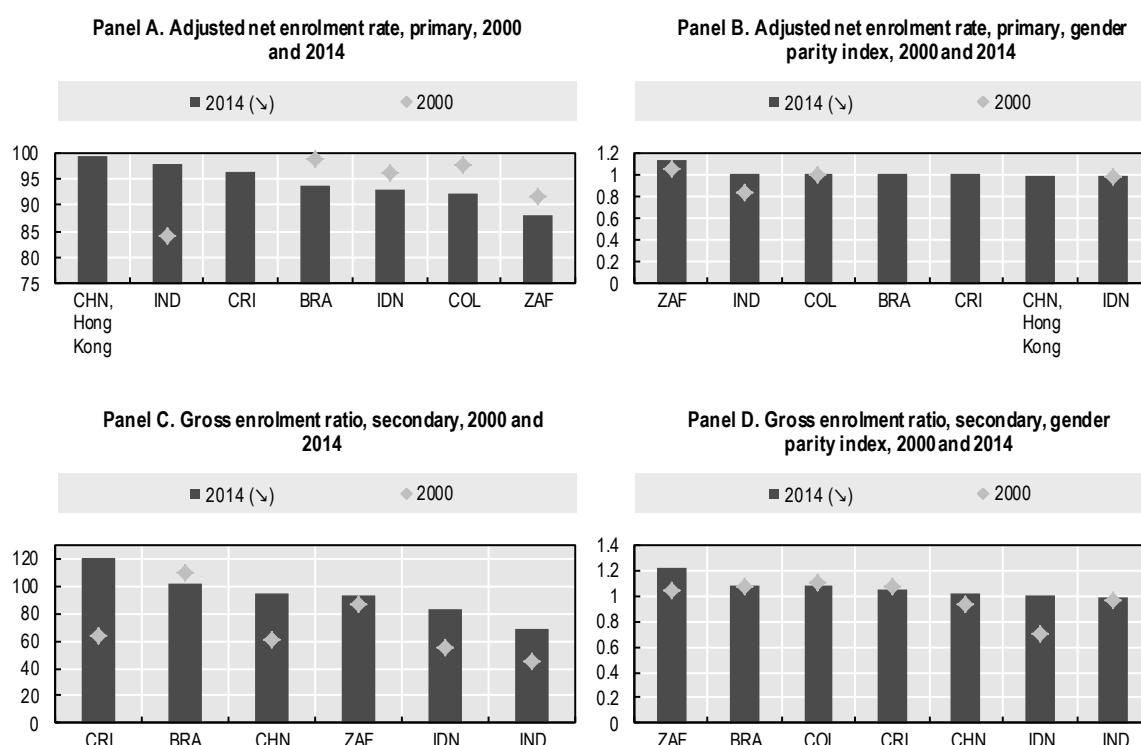
46. Income inequality is the most widely available metric for assessing (vertical) inequalities in people's material conditions (i.e. economic well-being). Other inequalities, however, are also important. This Section provide evidence on inequalities in education, health stats, labour market conditions and subjective well-being in emerging economies based on a number of indicators.

4.1. Education

47. Access to quality education substantially influence income inequality trends and is therefore important to analyse in the context of discussions on inclusive growth. Furthermore, education tends to be positively associated with well-being outcomes such as health status and willingness to participate in civic activities. By fostering social cohesion, the benefits of greater education accrue to society at large. Finally, education is of great intrinsic importance when assessing inequalities of opportunity.

4.1.1. Inequalities in enrolment rates

48. Net primary enrolment rates show that all the selected emerging economies are close to universal primary school enrolment. The only exception is South Africa, where primary enrolment rate is still below 90%, which (while much higher rate than in other African and South Asian countries on average) falls short of levels in most OECD countries. Colombia, Indonesia and Brazil have rates just above 90% while Costa Rica, India and China have enrolment rates close to 100% and similar to Western Europe and North America. Primary education enrolment rates have progressed greatly in India in the past decade, with an increase of more than 10 percentage points from 84% to 97%, while in other countries net enrolment has declined, especially in Colombia (Figure 4.1, Panel A). All emerging economies have achieved gender parity in primary schooling. Gender parity existed already 10-15 years ago in South Africa, Colombia and Indonesia but not in India, where in 2000 enrolment in primary education was still around 20% lower for girls than for boys (Figure 4.1, Panel B).

Figure 4.1. Enrolment rates and enrolment ratios in emerging economies, 2000-2014

Note: Panel B: The adjusted net enrolment rate gender parity index is the ratio of female to male adjusted net school enrolment ratio. Panel D: The gross enrolment ratio gender parity index refers to the ratio of female to male gross school enrolment ratio. Data for 2000 refer to 2002 for Brazil; and to 2001 for China. Data for 2014 refer to 2013 for Brazil and Indonesia.

Source: « Enrolment ratios database », UNESCO UIS.Stat: <http://data.uis.unesco.org/index.aspx?queryid=142>.

49. Gross enrolment ratios in secondary school vary greatly across emerging economies and tend to be below the values found in Western Europe and North America in all emerging economies but Costa Rica (Figure 4.1, Panel C). Indonesia and India have the lowest enrolment ratios in secondary education, at 82% and 68% respectively. South Africa and China have enrolment ratios similar to the average rates for Latin America (close to 94%), and much higher than those for Sub-Saharan Africa and South/West Asia. In all countries, boys and girls are equally likely to be enrolled, with girls even being more likely than boys to be in secondary school in South Africa (Figure 4.1, Panel D).

50. Trends in secondary school enrolment show an increase over time in most countries, except Brazil and South Africa (Figure 4.1, Panel C). In the latter, enrolment rates have remained stagnant in the past decade while, in Brazil, gross enrolment rates have slightly decreased. The largest increase in gross enrolment ratio at secondary level since the year 2000 occurred in Costa Rica, where rates almost doubled (i.e. from 64% to 120%). By way of contrast, the smallest increase was in India, where the ratio increased by 23 percentage points. The gender parity index has remained stable in Latin American countries and India. In Indonesia, gender parity at secondary school level has improved over time: while in 2000 there were more boys enrolled than girls, gender parity was achieved in the 2010s. As for South Africa, there has been a shift away from parity during

the period considered: while in 2000 boys and girls were equally likely to be enrolled in secondary education, enrolment became considerably higher for girls by the latest year available.

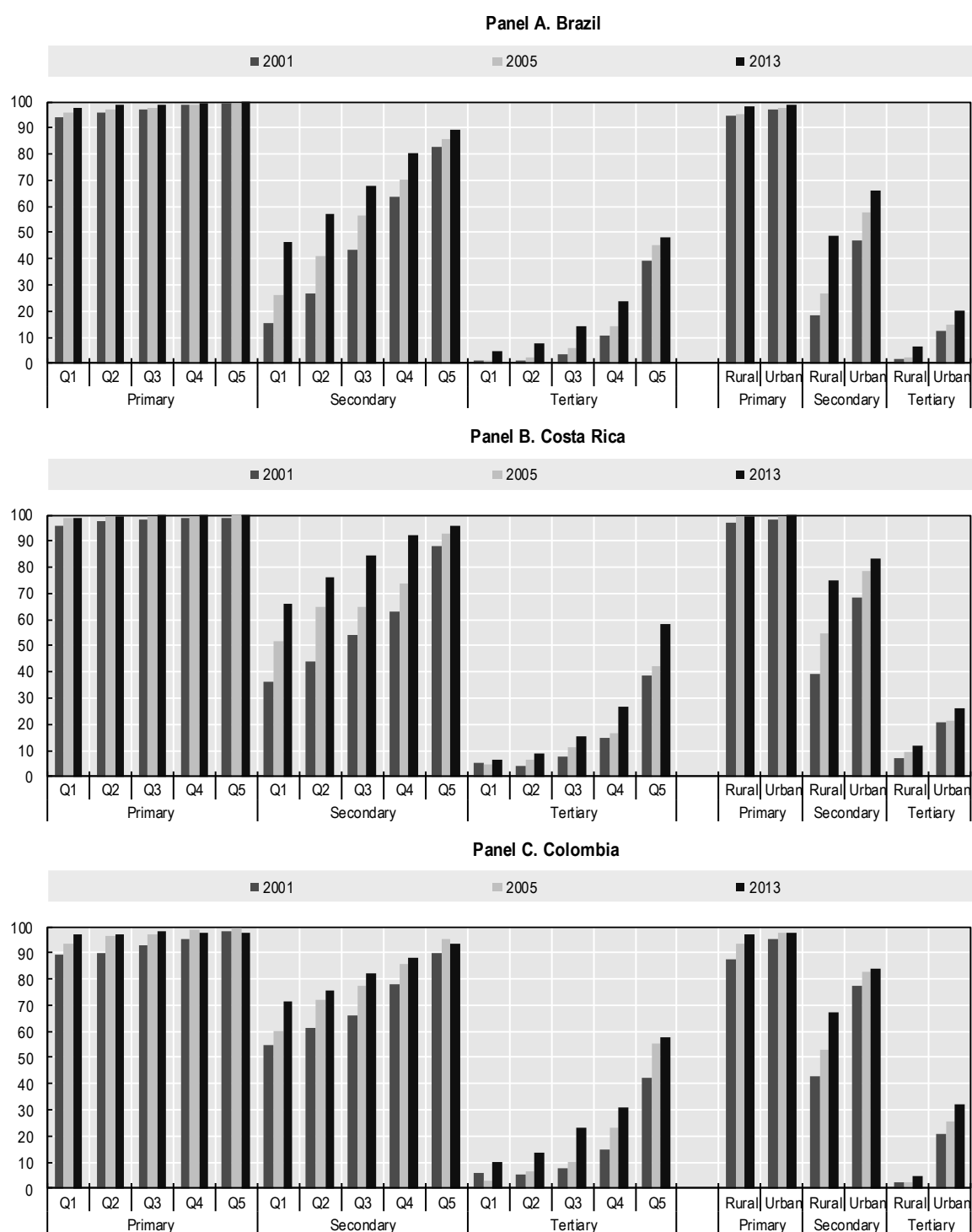
4.1.2. Enrolment rates by income quantile and area

51. While enrolment rates for primary education do not vary greatly by income quintile, family income has a strong influence on enrolment rates in secondary and tertiary education. In all three countries with available data (i.e. Brazil, Colombia, Costa Rica), the difference in net enrolment rates for 2013 between the lowest and the highest quintile is around 1 or 2 percentage point for primary schooling (Figure 4.2). Differences in enrolment rates by quintile are much wider at secondary level with the highest quintiles having enrolment rates 20 points higher than in the lowest quintile in Colombia and over 40 points higher in Brazil. The gap in enrolment rates in tertiary education by income is even wider, at 43 points in Brazil and 52 points in Costa Rica. Enrolment rates in secondary and tertiary education also vary greatly across these three countries: enrolment rates in secondary and tertiary schooling for households in the first income quintile stand at 46% and 5%, respectively, in Brazil; and at 71% and 10% in Colombia.

52. Trends in enrolment by income quintile show an improvement for the first quintile, and a decline in the gap with the highest quintile, for secondary education but not at tertiary level. At the beginning of the 2000s, enrolment rates in primary school were lower for the bottom than for the top quintile, especially in Colombia where there was a gap of 10 points between the two ends of the income distribution. In the same period, enrolment rates in secondary education were 5.5 times higher for the highest quintile in Brazil and 2.5 times than for the lowest quintile in Costa Rica. Secondary school enrolment among those in the first income quintile increased greatly in both countries (from 15% to 46% in Brazil and from 36% to 66% in Costa Rica), while the increase was more modest in Colombia.

53. Similarly to income, the urban-rural gap in enrolment rates is negligible for primary education but larger for secondary and tertiary level (Figure 4.2). The gap is comparatively low in Costa Rica, especially for secondary enrolment (8 points, compared with almost 20 points in Brazil). Enrolment in tertiary education in rural areas is highest in Costa Rica, although the gap is similar to the urban-rural gap in Brazil, where enrolment rates are small in rural areas but have increased much in relative terms.

Figure 4.2. Net enrolment rates by income quintile and area

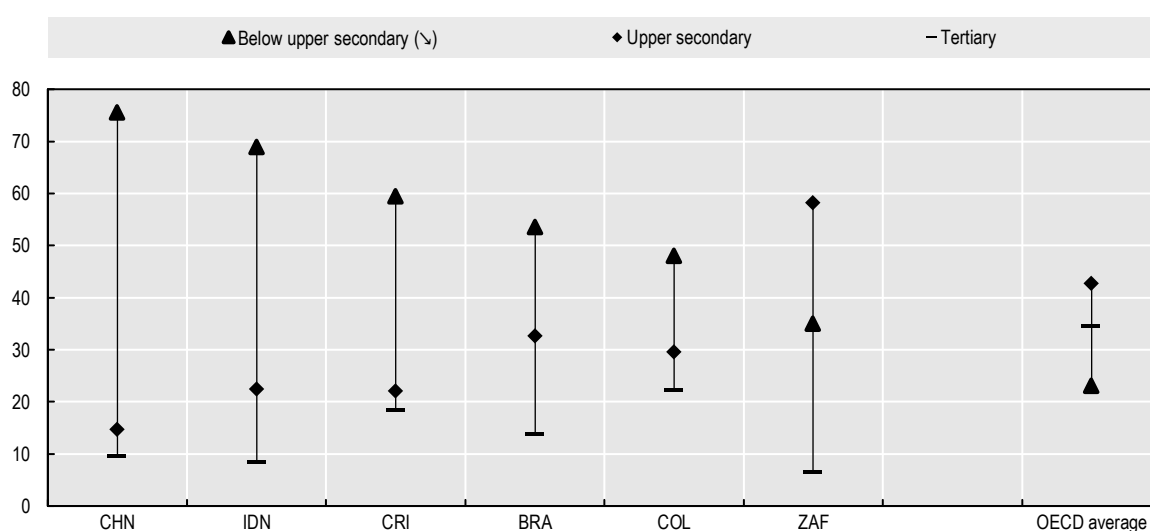


Source: SEDLAC (CEDLAS and The World Bank),
www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/estadisticas/.

4.1.3. Educational attainment

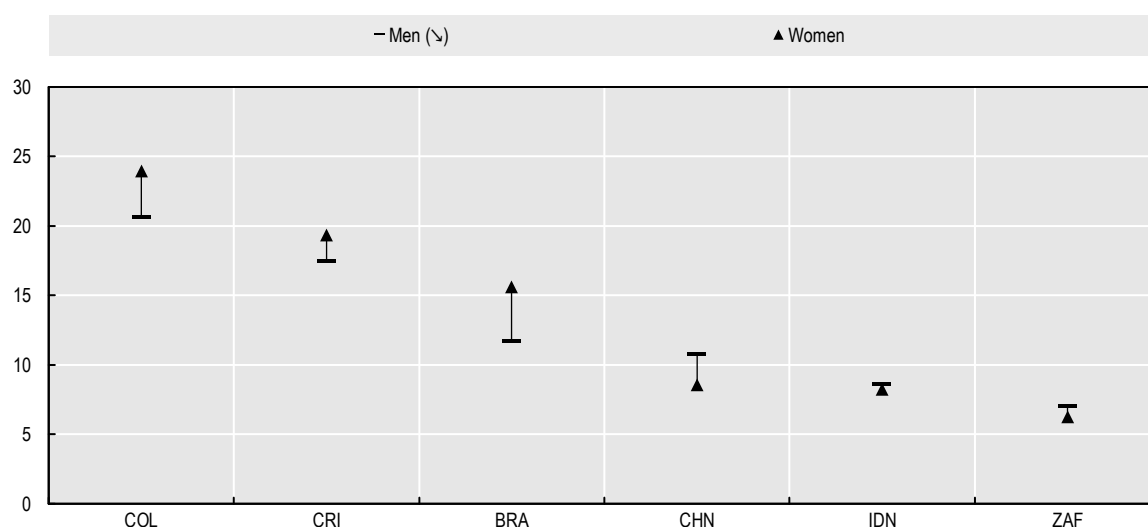
54. In most of the emerging economies considered here a large majority of adults have below upper secondary educational attainment (Figure 4.3). South Africa stands as an exception, with almost 60% of adults having an upper secondary degree level. Accordingly, attainment at tertiary level tends to be low in the countries considered. While the OECD average share of people with below upper secondary is of 23%, in emerging economies this share ranges from 35% in South Africa, to around 50% in Brazil and Colombia, and 70% or more in Indonesia and China. In turn, while 34% of adults in the OECD have tertiary education, only 6.7% of South Africans do, with the highest tertiary attainment obtained in Colombia (22%) and Cost Rica (18%). Both Colombia and Costa Rica have a small proportion of people with an upper secondary qualification compared with the OECD average country but a rather important proportion of adults with tertiary education compared with the other emerging economies. Despite the comparatively high share of people with upper secondary education, South Africa lags behind other emerging economies in terms of tertiary education attainment.

Figure 4.3. Adult education level, latest year available



Source: OECD (2016), “Adult education level (indicator)”, <http://dx.doi.org/10.1787/36bce3fe-en> (accessed on 30 March 2016). Years refer to 2013 for Brazil; to 2014 for Colombia and Costa Rica; to 2011 for Indonesia; to 2012 for South Africa; and to 2010 for China. OECD average calculated using data for 2014.

55. While in most OECD countries, tertiary graduates in most fields of study are predominately female, in emerging economies this holds true only for Latin American countries. In Brazil and Colombia, there are slightly more women who have attained tertiary education; on the other hand, in Indonesia and South Africa equal shares of men and women have tertiary education, while in China men are more likely to obtain a tertiary degree than women (Figure 4.4).

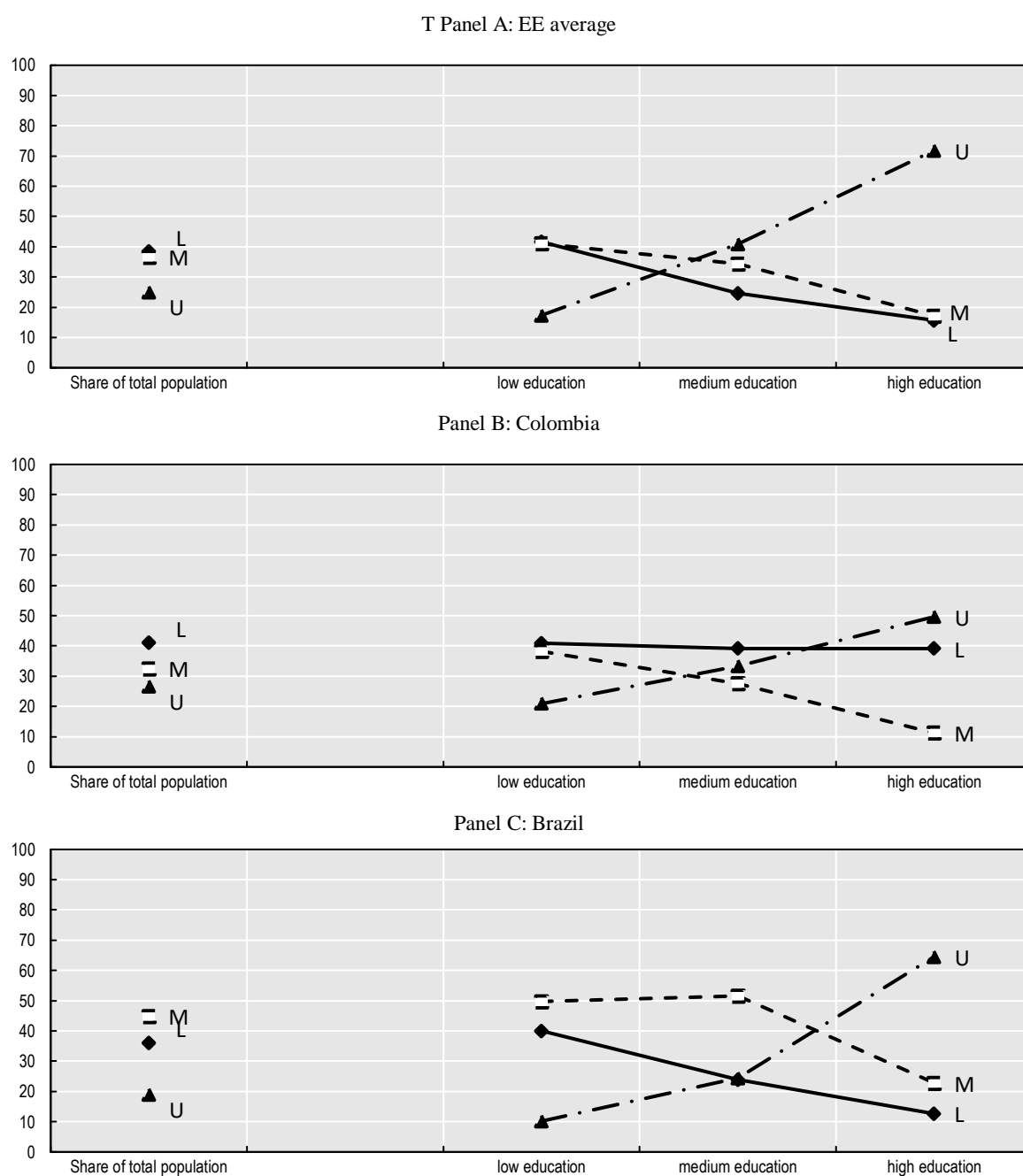
Figure 4.4. Share of adults with tertiary education by gender, latest year available

Source: OECD (2016), “Adult education level (indicator)”, <http://dx.doi.org/10.1787/36bce3fe-en> (accessed on 22 September 2016). Years refer to 2015.

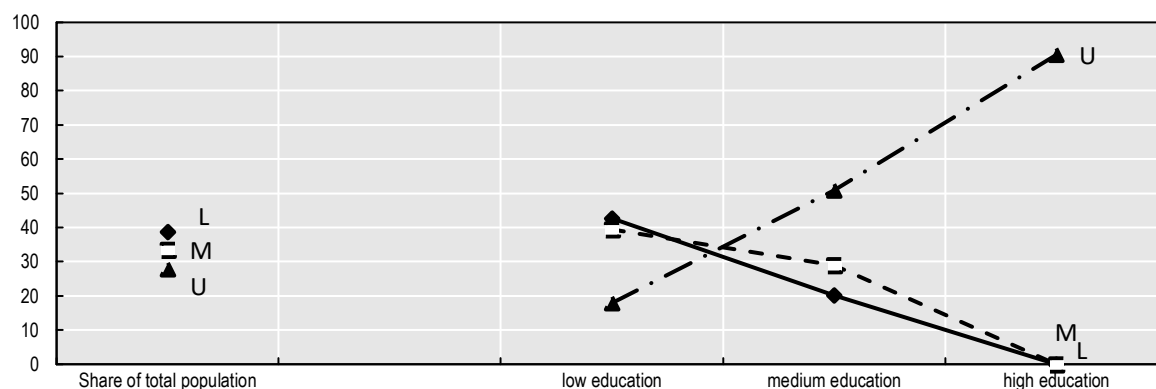
4.1.4. Inequality in education for low, middle and upper class

56. Not all students have the same access to education: some, especially those with a lower socio-economic status, tend to have lower educational attainment. Figure 4.5 shows the share of people in low, middle and upper income classes by educational level (see note to the figure for the definition of socio-economic classes). The share of people in the upper class rises with education level, as expected (Figure 4.5, Panel A). The positive association between income class and educational level is strong in all emerging economies (Figure 4.5, Panels B to F). Figure 4.5 also shows that in Colombia the share of people in higher education is higher among the lower class than in middle class (Panel B).

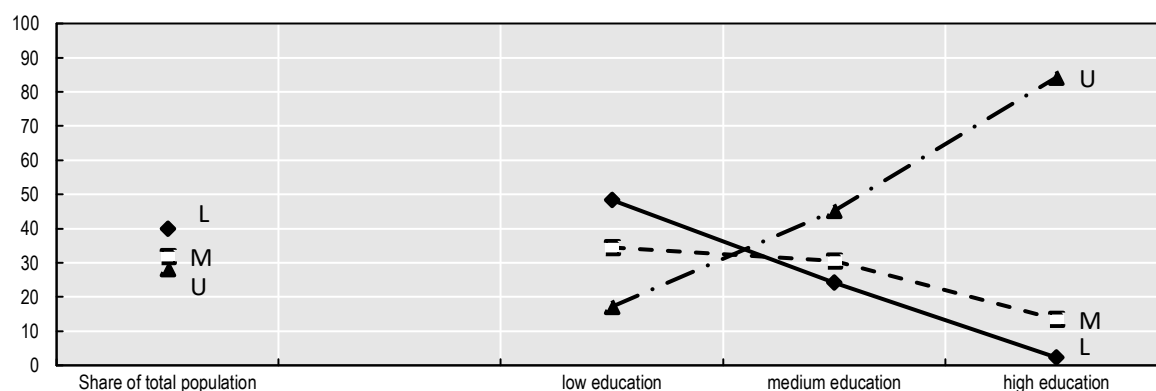
Figure 4.5. Population shares of lower, middle and upper class by educational level, latest year available



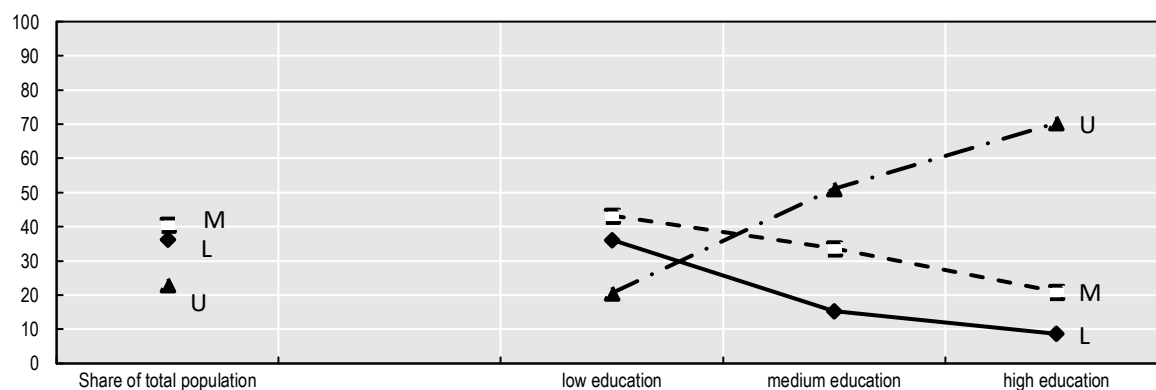
Panel D: South Africa



Panel E: China



Panel F: India



Note: “L” stands for lower class (below 75% of median income); “M” for middle class (between 75% and 200% of median income); and “U” for upper class (above 200% of median income).

Source: OECD Secretariat calculations based on data from LIS Data Centre.

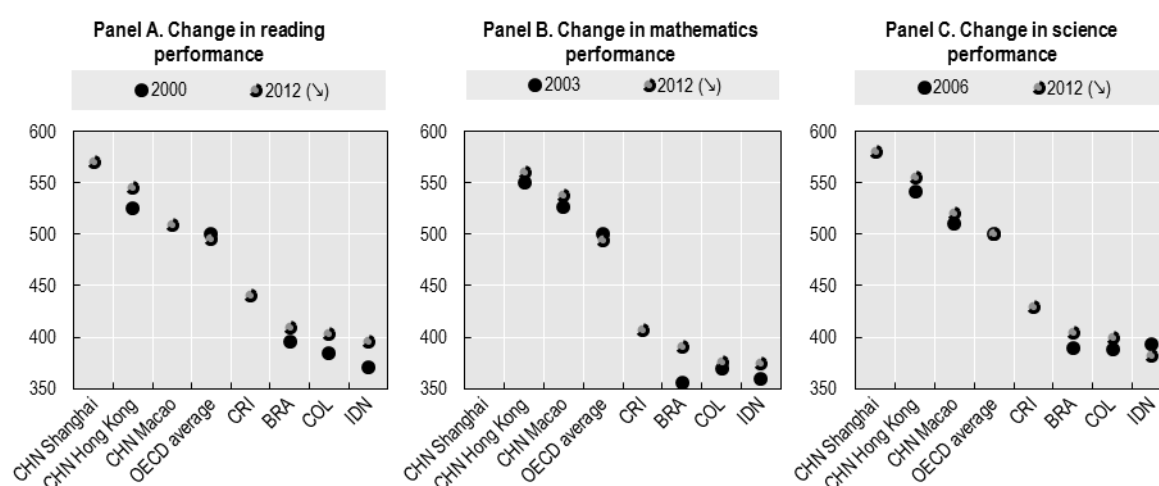
4.1.5. Student’s performance and skills

57. Results from the OECD Programme for International Student Assessment (PISA) show that several emerging economies still lag considerably behind OECD countries with regard to student’s performance, with the exception of the scores of 15-year-old students

in the Chinese cities of Shanghai, Hong Kong and Macao.¹³ The Latin American emerging economies and Indonesia have mean test scores in all subjects that are between 17% and 29% lower than the OECD average. The mathematics tests scores for the Latin American countries and Indonesia are all below those for Mexico and Chile, which have the lowest scores among the OECD. This is also the case for reading and science scores for Brazil, Colombia and Indonesia while Costa Rica has mean test scores above those of Mexico. Mean test scores in China, conversely, are above the average and higher than the highest OECD country scores for all three subjects.

58. Trends in PISA scores show a general tendency for results to improve over the past decade in EEs, while they were stable in the OECD on average (Figure 4.6). In Brazil, scores in mathematics increased by 10%, with more modest increases in reading and science. Reading scores increased by 7% in Indonesia and by 5% in Colombia. In all countries, increases in science scores were less pronounced. Indonesian students, in particular, performed slightly worse in 2012 in science than they did in 2003. In China (Hong Kong), the mean score in all categories increased between 2 and 4%, a smaller relative increase than in most other countries, but from a much higher starting level in 2003.

Figure 4.6. Changes in PISA scores in selected emerging economies



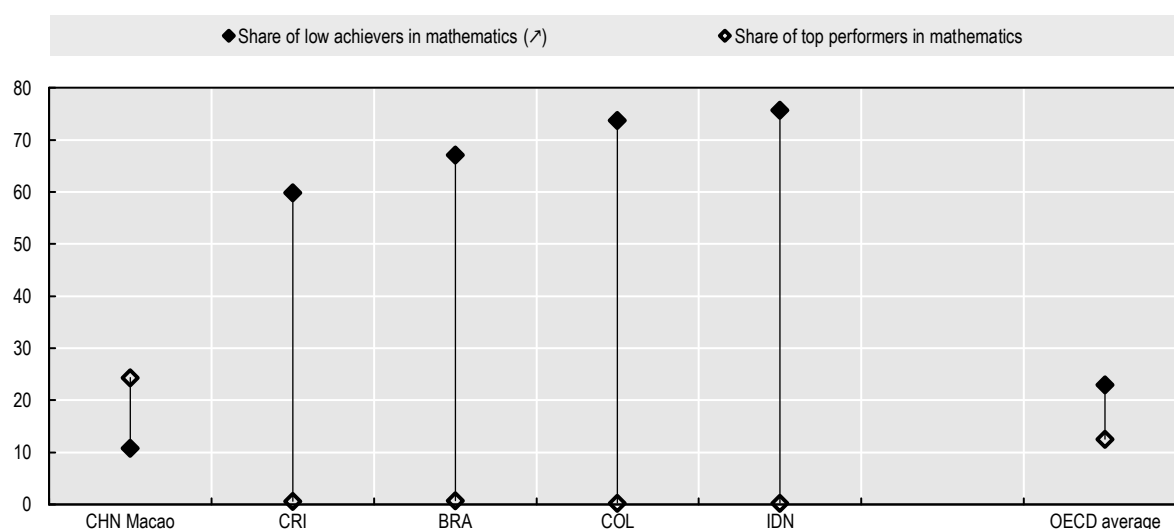
Source: OECD, PISA 2000, 2003, 2006, 2009 and 2012 Databases.

59. The share of low performers among students in emerging economies is at least three times higher than in OECD countries, with the exception of China (Macao). Figure 4.7 shows the share of low and top achievers in mathematics for selected emerging economies: low performers are defined as students below the baseline Level 2, while top performers

13. One needs to bear in mind that students who participate in PISA in middle-income countries are likely to have more educated backgrounds and the new PISA for Development will also have targeted test instruments that cover a wider range of performance at the lower levels of proficiency while still providing scores that cover the whole of the PISA framework and are comparable to the main PISA results. In addition, participation of countries in PISA and drop-out during the cycle appears to be related to financial costs.

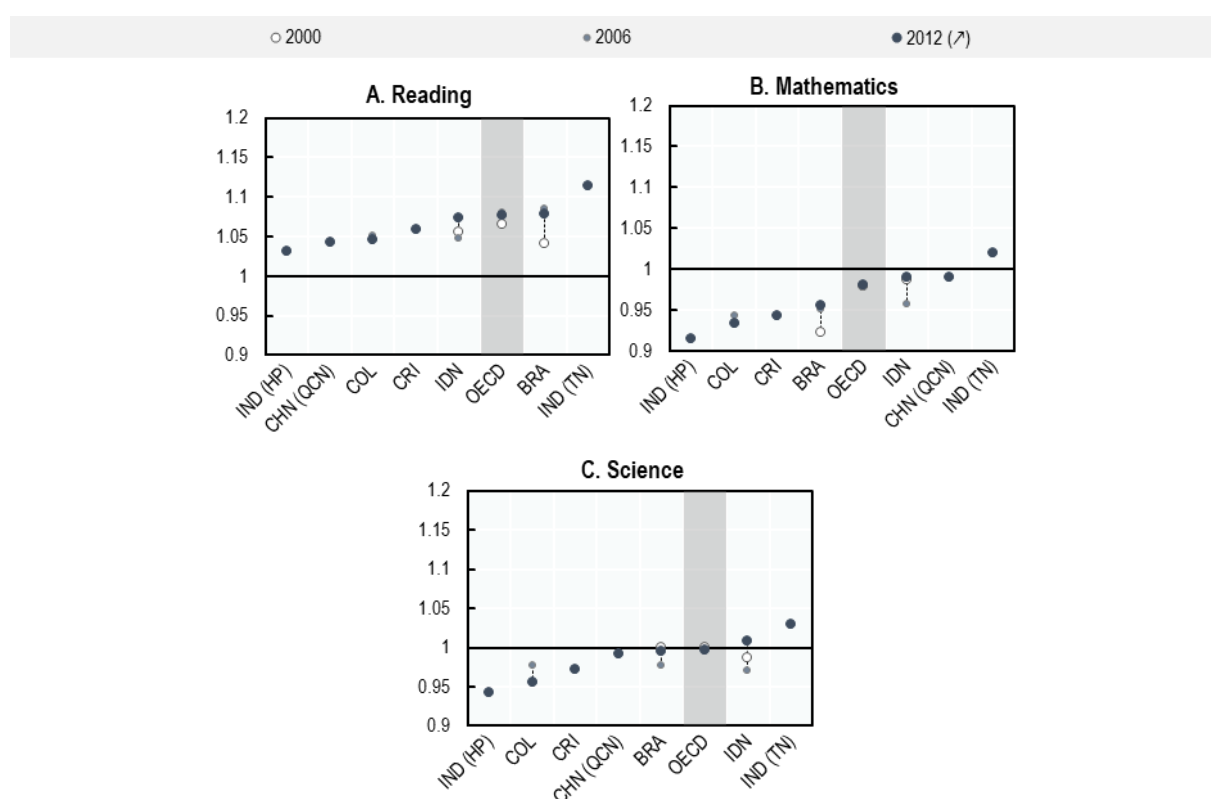
are those scoring at Levels 5 and 6. Nearly three-quarter of students in Brazil, Costa Rica, Colombia and Indonesia fail to reach the baseline level of proficiency in mathematics, as compared to an OECD average of 23%. Less than 1% of the students in Costa Rica, Brazil, Colombia and Indonesia are among top performers in mathematics, a much lower share than the OECD average (12.6%). In Indonesia and Colombia, only 0.3% of 15-year-old students are top achievers, the lowest share among all the emerging economies considered. China-Macao has the highest share of top performers in mathematics with 24% of students among the top performers, much higher than the OECD average; similarly, the share of low achievers is substantially lower relative to the OECD average.

Figure 4.7. Educational achievement



Source: OECD, PISA 2012 Database.

60. Similarly to OECD countries, in emerging economies boys tend to outperform girls in mathematics while girls outperform boys in reading and no significant gender gaps exist in science performance. Across OECD countries, the gap in mathematics scores between girls and boys amounts to 2% (i.e. 11 score points). This difference in performance is wider in Latin American countries but is below the OECD average in Indonesia, China and the state of Tamil Nadu in India. By contrast, across OECD countries, girls have greater reading scores by an average of 7% (i.e. 38 score points, the equivalent of one year of school); while in emerging economies the advantage of girls is often lower, except in Brazil and the state of Tamil Nadu in India (Figure 4.8).

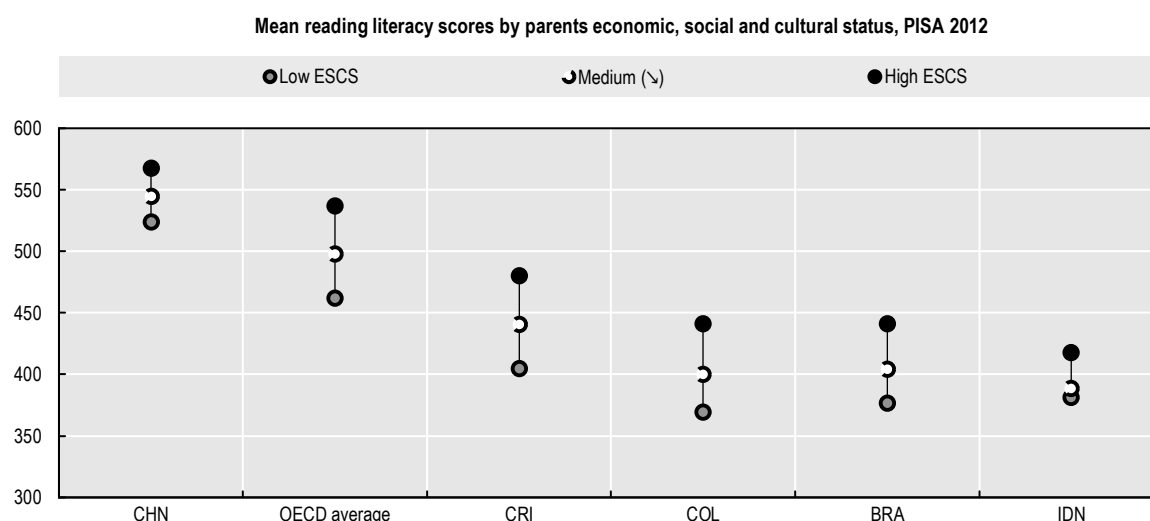
Figure 4.8. Ratio of female-to-male mean PISA scores, 2000, 2006 and 2012

Note: CHN (QCN): China (Shanghai); IND (HM): India (Himachal Pradesh); IND (TN): India (Tamil Nadu). 2012 refers to 2009 for India (Himachal Pradesh and Tamil Nadu). No data in 2000 for China, Colombia, Costa Rica and India; in 2006 for China, Costa Rica and India. OECD is the weighted average of OECD countries included in each release of the PISA survey.

Source: OECD, PISA 2012 Database.

61. Differences in reading scores by parental socio-economic background using the PISA index of economic, social and cultural status (see note to Figure 4.9) are smaller in emerging economies than the OECD average. In the average OECD country, the difference in reading scores between students from a high socio-economic status and from a low one amounts to 75 points. This gap is lower in Colombia, Brazil and Indonesia, while it is similar to the OECD average in China and Costa Rica (Figure 4.9). The difference in tests scores (36 points) is smallest in Indonesia. These patterns may however reflect under-representation of pupils from underprivileged backgrounds among students in Colombia and Indonesia, many of which are likely to be out of school in those countries.

Figure 4.9. Mean reading literacy scores by parents' economic, social and cultural status, PISA 2012



Note: The PISA index of economic, social and cultural status (ESCS) is based on information from students on parental occupations, parental education, and home possessions; access to possessions at home was used as a surrogate measure of wealth.

Source: OECD, PISA 2012 Database.

4.1.6. Challenges for education policy in EEs

62. An important policy avenue to reduce educational inequalities is to continue investing in policies that promote the up-skilling of the workforce. Argentina and Brazil over the past two decades have promoted more equal access to education, while broadening the distribution of school attainment. In both countries, the expansion of basic education – supported by non-school family policies to improve early childhood health and nutrition programmes, and progress in the service infrastructure – has contributed to narrowing the earnings gap between skilled and low-skilled workers (Lopez-Calva and Lustig, 2010). Investments in education in India and Indonesia have also increased access to education, even though progress in reducing income gaps has been less tangible, particularly among the most disadvantaged. India still has low literacy levels but is now approaching near-universal enrolment in elementary education. Spending on secondary education has also risen significantly in recent years, with the 2009 “Secondary Education for All Action Plan” aiming to provide universal access to secondary education by 2017 (OECD, 2014b). Indonesia also increased gross enrolment rates in secondary education and expects to achieve universal participation in education from 9 to 12 years in 2019. Similarly, Colombia will make upper secondary education compulsory by 2030.

63. Improving equity in education is another key aspect. Young people from poorer families are severely underrepresented in higher education within emerging economies. For instance, in Colombia, school life expectancy for students from the poorer socio-economic backgrounds is just 6 years, compared with 12 years for the richest (OECD, 2016). Countries need to prioritise additional resources – infrastructure, teachers – to schools in the most challenging contexts, where they can have the greatest impact, such as rural areas, where students fail to progress to higher levels. Certain countries such as Costa Rica have made reducing inequality in education one of the main goals of their education policy, and efforts have been made to enable more people to benefit from the *Avancemos* conditional

cash transfer programme run by the education ministry and the Institute for Social Aid (IMAS). Scholarships and special loans have also been introduced. In Indonesia, the BIDIKMISI scholarship was first introduced in 2010 to support students at 104 public universities in order to cover tuition fees and living expenses.

64. Overall, in many EEs investment in education has paid off in terms of average educational attainment, even if quality of education is lagging behind. Improving quality requires addressing key issues, such as high rates of grade repetition and student dropout, but also increasing quality of education and tailoring curricula to the needs of the labour market. While these issues may be partly related to low public spending in many countries, efficiency of public spending on education is also key; for instance, public spending increased substantially in Indonesia in the past decade, but learning outcomes have not (OECD, 2015e). PISA results show that students in most emerging economies are performing well below the OECD average. Countries that have improved their performance in PISA, like Brazil, or Colombia, have introduced policies to improve the quality of their teaching staff (OECD, 2014e), with a focus on teachers' soft skills, their expectations on their students' futures, the type and level of teacher certification (OECD, 2015d).

65. Recent OECD work suggests that wider access to vocational pathways in secondary education can keep youth who are disaffected with academic education engaged in school (Quintini and Manfredi, 2009). More vocational education could be a particularly interesting option for emerging economies, as it could both improve nationwide graduation rates and smooth the transition from school to work. Only few students are generally involved in vocational education (e.g. no more than 10% of upper secondary students attend vocational courses in India and Mexico, OECD-ILO, 2011a). The National Policy on Skill Development in India is an interesting example in this respect: it encompasses the creation of a private-public partnership to strengthen the engagement of industry in skills development and promotes greater employer involvement in the country's Industrial Training Institutes (OECD-ILO, 2011b). In Brazil, the Federal Pronatec programme launched in 2011 aims to expand the federal network of technical schools, to provide free training places for youth from disadvantaged backgrounds and to include bursaries and loans (OECD, 2013).

66. Apprenticeships are another crucial element to give youths a better start in their careers, as they can help them overcome their lack of experience. Well-designed apprenticeship systems can promote skills acquisition, facilitate the transition from school to work, increase the availability of quality jobs and reduce school drop-out. The main actions in this field should concentrate on giving better access to high-quality programmes to the most disadvantaged and disengaged youth. Another important priority is to improve the recognition and value of apprenticeships as an attractive career choice for youth. Although limited, the evidence available for emerging economies suggests that this is not a major issue compared to some OECD countries: apprenticeship completion rates reach about 80% in India, Argentina and Mexico, suggesting that the programmes' rules and content are rather well-suited to youth expectations and needs. Finally, the engagement of employers is another crucial element for the success of an apprenticeship schemes. Despite financial incentives, employers are often reluctant to engage with the apprenticeship system, especially when other forms of cheap labour are available. There may be a difficult trade-off between ensuring that the costs of investing in apprenticeships are not too high for firms, on one side, and ensuring suitable working conditions and quality of training for apprentices, on the other. In Brazil, *Aprendiz Legal*, an apprenticeship programme based on a legal requirement for firms to hire apprentices, has been successful in expanding the number of apprenticeships (see OECD, 2015c)

4.2. Health status

67. Health conditions have an intrinsic importance as a dimension of people's life and can also directly influence an individual's opportunities – their earnings capacity, their performance at school, their ability to care for children, to participate in community activities and so on. This important instrumental function of health implies that inequalities in health often translate into inequalities in other dimensions of well-being (OECD, 2011a).

68. On average, health outcomes have improved substantially in emerging economies, and yet they remain below those in OECD countries. Low environmental quality and lack of high quality medical services, as well as nutrition deficiencies, still lower people's health status in emerging economies. Moreover, low public resources invested in health care, lack of health-care professionals, poor regulation of health services, large out-of-pocket payments and inequality in access to health care perpetrate health inequalities, in particular among the poor, those living in rural areas and urban slums. Most OECD countries have a long tradition of monitoring socio-economic inequalities in health and of formulating policies that tackle them. While much attention has traditionally been paid to population health in the developing world, until recently the focus has been, for the most part, firmly on population averages.

69. Health inequalities can be described in different ways. Two indicators are presented in this section. The first is a measure of survival probability by age and sex, i.e. a measure of inequality in longevity. While measures of longevity (or mortality) inequality between population groups (in particular across socio-economic groups defined by education, occupation or income, see Mackenbach et al., 2015, for a methodological review) are potentially more informative, these measures are not currently available for most non-OECD countries (see Murin et al., 2016, for estimates pertaining to OECD countries).

70. The second indicator of health inequality used in this section relates to the share of population reporting limitations in their daily activities, a proxy measure of morbidity. Single-item questions on self-reported health status and disability have often been included in national demographic and health surveys; however, different sampling techniques, phrasing of the survey questions and reference populations hamper cross-country comparability. For the purpose of international comparisons, the evidence presented here is based on the *Gallup World Poll*.¹⁴ While these data have limits in terms of sample size, sampling frame and mode of data collection, they have the advantage of covering all the countries analysed in this report, and of relying on a harmonised questionnaire.¹⁵

71. Caution is required when comparing perceived disability across countries, for two main reasons. First, since self-reported disability status relies on the subjective views of the respondents, it may reflect cultural biases or contextual factors. Second, since elderly

14. The GWP question is “Do you have any health problems that prevent you from doing any of the things people your age normally can do?”.

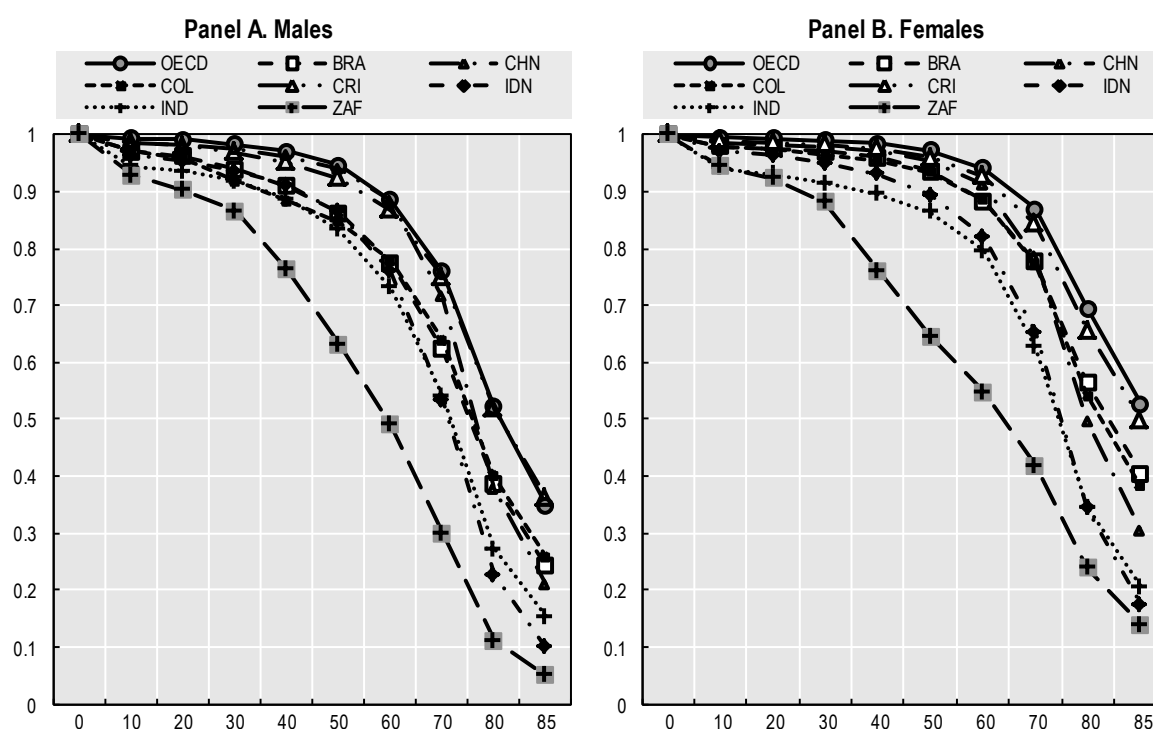
15. The Gallup World Poll is conducted in approximately 140 countries around the world based on a common questionnaire, translated into the predominant languages of each country. With few exceptions, all samples are nationally representative of the resident population aged 15 and over in the entire country, including rural areas. While this assures a good degree of comparability across countries, results may be affected by sampling and non-sampling errors. Sample sizes are limited to around 1 000 persons in each country, with larger samples for some of the major countries. In order to account for small sample sizes, statistics based on the Gallup World Poll shown in this report are pooled across waves.

people generally report poorer health, countries with a larger proportion of aged persons will also feature larger shares reporting health problems (unless data are age-standardised). Despite these limits, there is evidence that indicators of self-reported health status strongly correlate with objective physical and mental health measures, and predict health care use and mortality (Miilunpalo et al., 1997; Lee, 2000).

4.2.1. Longevity inequality

72. The age-profile of the survival function reflects inequality in lifespan. The more “rectangular” it is, the larger the share of people who die at old age and the lower lifespan inequality. Figure 4.10 presents survival rates for the average of the 35 OECD countries as well as in Brazil, China, Colombia, Costa Rica, Indonesia, India and South Africa in 2010-2014 (United Nations, 2015). Three groups of countries can be distinguished: i) “high survival/low inequality countries” include most OECD countries and Costa Rica, as well as China (but only until age 70 for men and 60 for women); ii) “medium survival/inequality countries” include Brazil, Colombia, Indonesia and India; iii) “low survival/high inequality countries” include South Africa, due to the HIV/AIDS epidemic.

Figure 4.10. Survival probability by age and sex, 2010-2014



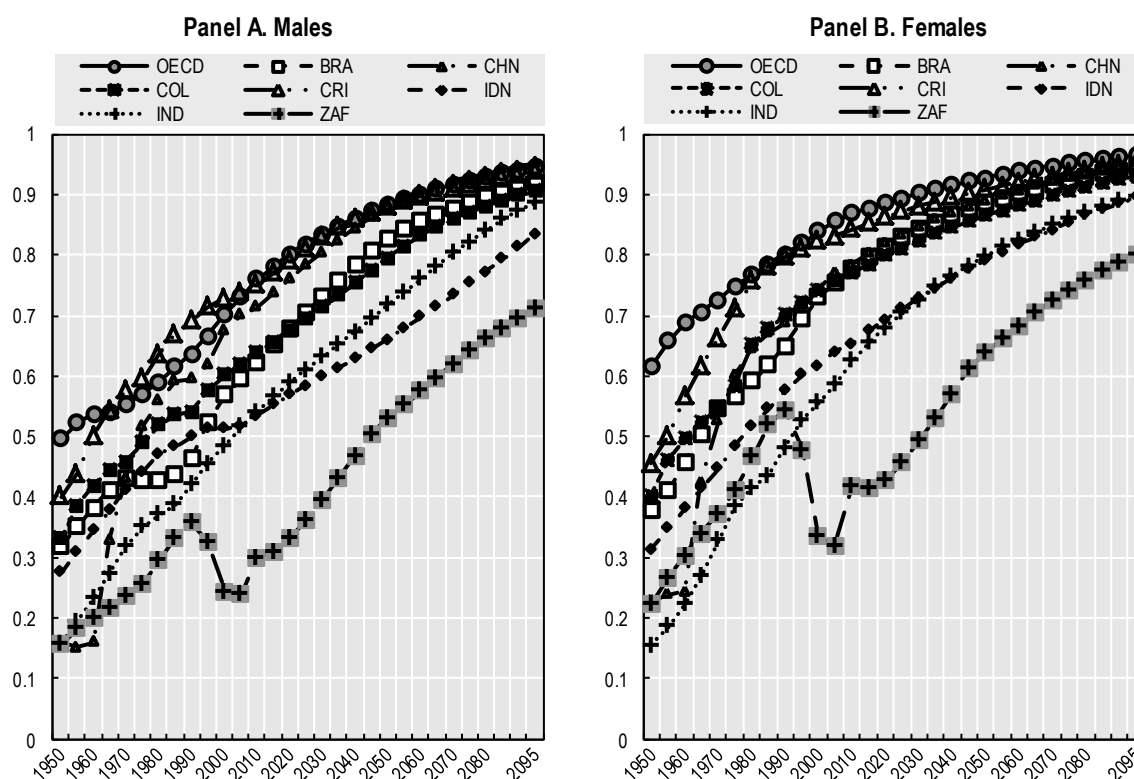
Source: United Nations (2015) and OECD calculations.

73. Inequality in lifespan mainly reflects high premature mortality, which can be measured by the probability of dying before age 70. As illustrated by Figure 4.10, South Africa (with premature mortality of 70% for men and 60% for women) is an outlier relative to other EEs and OECD (with rates of 25% and 13%, respectively).

74. Figure 4.11 provides a long-term perspective on the epidemiological transition incurred by selected emerging countries since 1950. This transition is projected to continue

over the next few decades. In OECD countries, the probability of dying before age 70 was in 1950 50% for men and 40% for women, and is projected to fall to 5% and 3% by 2100. Over the next 50 years, China, Brazil and Colombia are projected to catch up with OECD countries, while gaps in premature mortality between OECD countries and Indonesia, India and South Africa are deemed to remain large, reflecting high inequality in longevity and premature mortality in these countries in the years to come.

Figure 4.11. Survival probability at age 70 by sex, 1950-2100



Source: United Nations (2015) and OECD calculations.

4.2.2. Self-reported disability

On average, in the emerging countries considered here, one fifth of the population report having health problems that hamper their daily activities. This share is lowest in China and highest in India (where more than one in four Indians reports limitations in daily activities due to health problems). Focusing on within-country differences in morbidity, women are more likely to report long-standing health problems in all the emerging countries considered (Figure 4.12, Panel A). Gender differences in health outcomes have been well-documented by previous research, which suggests that, even though women live longer on average, they do suffer more often from depression, chronic illnesses and disability, and report a lower health status in general. The gender gap in self-reported disability is smallest in Costa Rica, China and Indonesia (1 p.p.) and largest in Colombia, Brazil and the South Africa (4 p.p. and over), countries where it is comparable to the values of the average OECD country. Gender gaps in disability are likely to reflect both biological and social factors, and the interplay between them. In terms of social factors, it has been suggested

that women may report higher levels of health problems because of their reduced access to material and social resources, and because of the greater stress associated with their gender and marital roles.

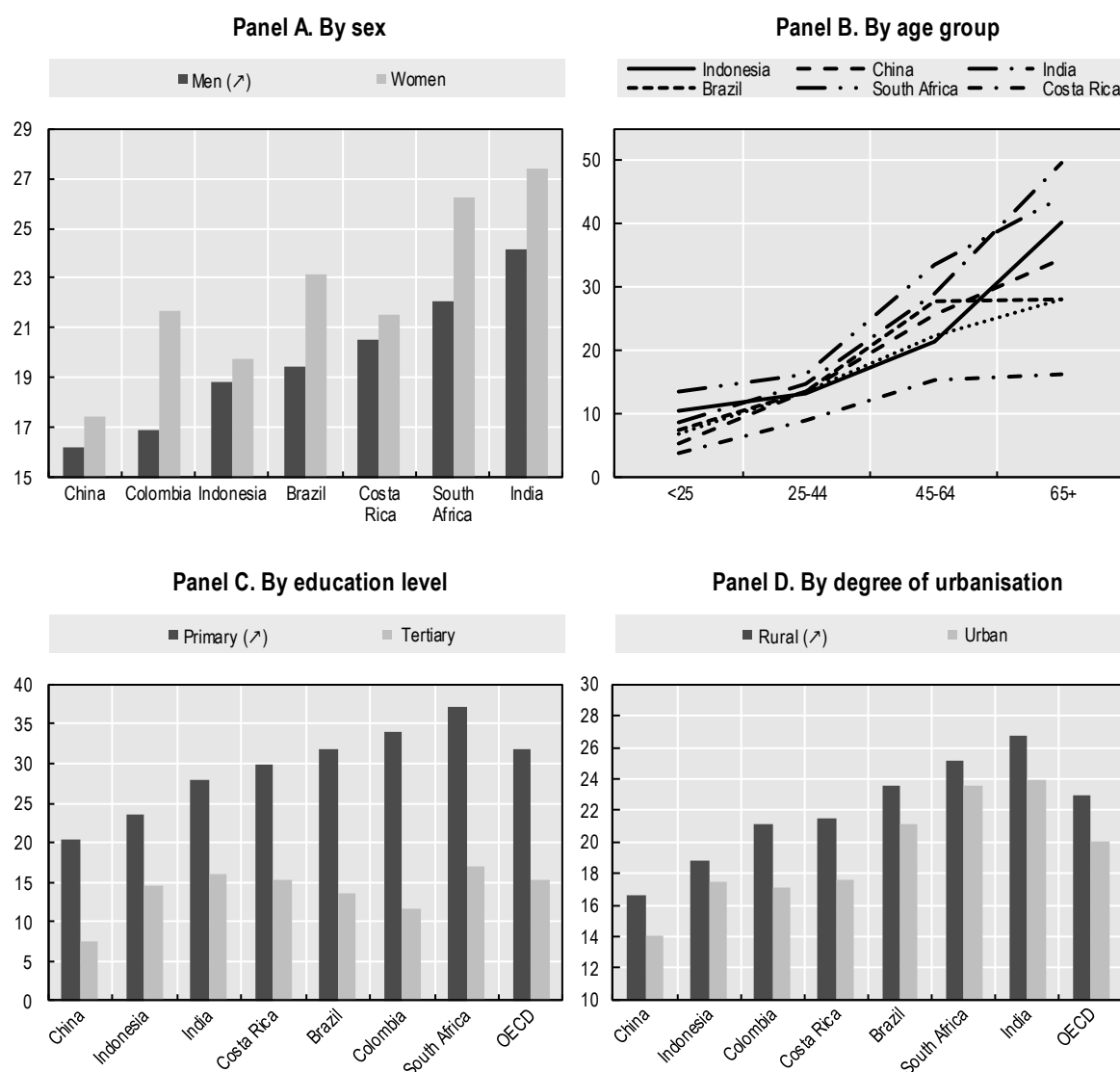
Unsurprisingly, there is an upward gradient in the prevalence of disability, when moving from the youngest to the oldest age group. A significant increase in the share of people reporting limitations in daily activities due to health problems after age 44 is observed in Costa Rica and Colombia, while in South Africa that proportion remains fairly stable. Data show a further increase after age 65 in all countries except in Brazil and Costa Rica, where rates are similar between the two adjacent age groups (Figure 4.12, Panel B). Compared to the OECD average, the upward gradient in most emerging economies considered here is steeper over the two youngest age groups and less accentuated after age 44.

Concerns have been raised about the validity of using self-reports for assessing population health from respondents with different socio-economic status. Since people's self-assessment of their health is contingent on social experience, disadvantaged groups may fail to perceive and report the presence of illness or health deficits. In spite of this bias, referred to as "reporting heterogeneity", evidence shown here suggests a positive association between education and health, i.e. people with higher education report better health status (Figure 4.12, Panel C). In China and Colombia, the probability of reporting daily limitations is almost three times as large for individuals with primary education as for those with a university degree. In Brazil, Costa Rica and South Africa, people with primary education are twice more likely than people with tertiary education to report health problems – a gap comparable to that observed in the average OECD country. These disparities may reflect differences in living and working conditions, as well as differences in health-related lifestyles (e.g. smoking, harmful alcohol drinking, physical inactivity and obesity). In addition, low-income people in emerging countries typically have more limited access to basic health services than in developed countries, due to financial or non-financial reasons. The causal link between health and education may also go in the other direction, with poor health status during childhood leading to lower education.

In all the emerging countries reviewed here, rural residents are more likely to report poor health than urban ones, with the largest disparities observed in Colombia and Costa Rica (Figure 4.12, Panel D). While the same pattern is also likely to hold in OECD countries, the size of these gaps is very large in emerging countries. Rural residents in these countries typically face limited access to medical care and support services, due to long and sometimes difficult travel and a limited number of health care facilities. Further, rural residents in these countries may be, on average older, poorer, less educated, less likely to have insurance, all factors exacerbating health disparities between rural and urban areas.

Figure 4.12. Inequalities in self-reported disability by sex, age, education and place of residence

Percentage of people declaring that they have limitations in daily activities due to health problems, pooled results 2006-2015.



Note: Data are pooled across all available years 2006-2015.

Source: OECD Secretariat calculations based on data from the Gallup World Poll, www.gallup.com/services/170945/world-poll.aspx.

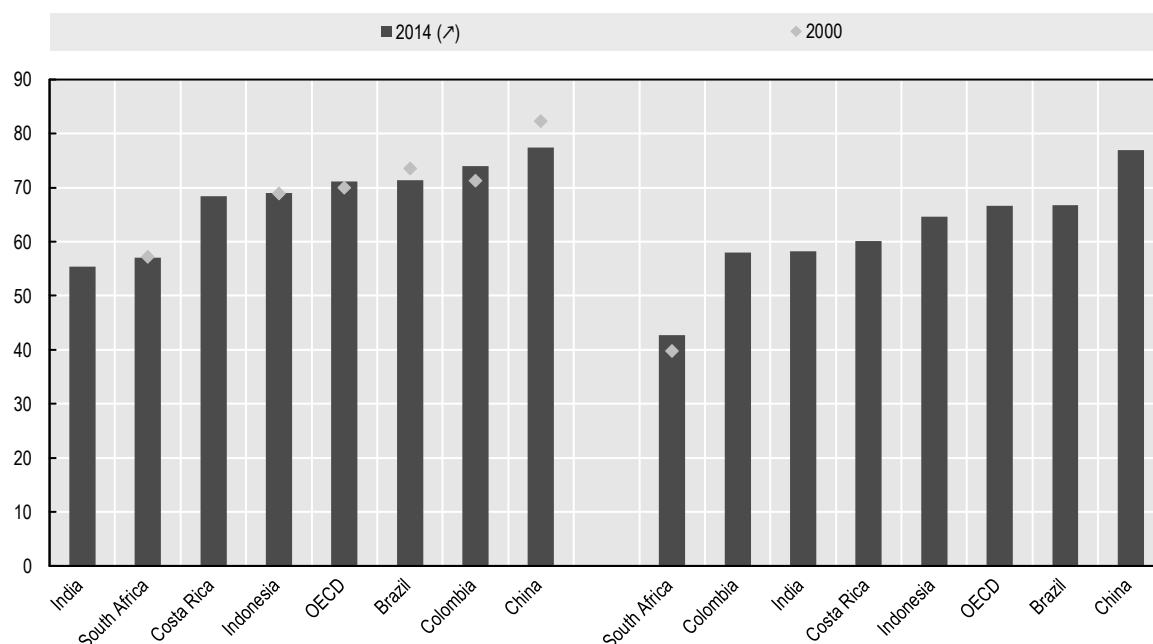
4.3. Labour market

4.3.1. Labour force participation, employment and unemployment

Labour force participation rates vary considerably among the selected emerging economies, with Brazil, Colombia and China being above the OECD average, whereas India, South Africa and Indonesia are below (Figure 4.13). At 77%, labour force participation rates in China are similar to the Nordic countries. On the other hand, participation rates in India and South Africa are below 60%, similar to OECD countries with the lowest labour force

participation (Greece, Turkey and Italy). While China and Brazil have experienced a slight decline during the past decade, labour force participation rates have been stable in other countries. In South Africa, low labour force participation rates go hand in hand with low employment rates, which stand at around 40% compared with 66% in the OECD average. The employment-to-population ratio in India and South Africa is below the OECD average, whereas it is above the OECD average in Brazil and China.

Figure 4.13. Labour force participation rate and employment population ratio

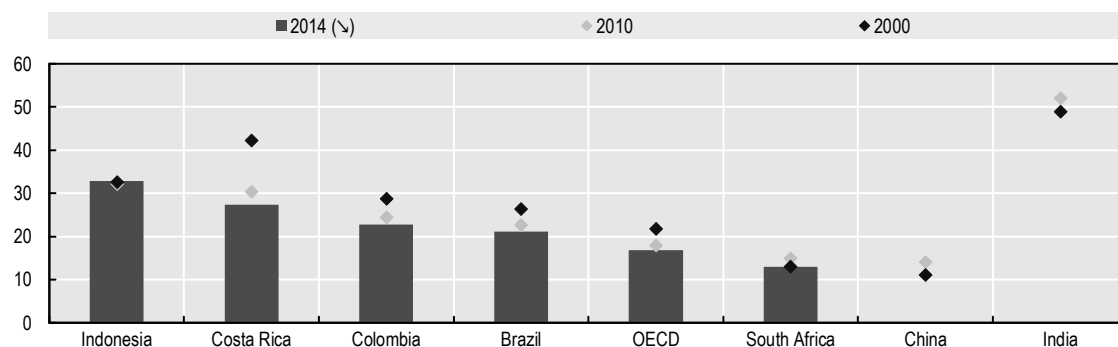


Source and definition: OECD Online Employment Database, www.oecd.org/employment/database and www.oecd.org/els/emp/lfsnotes_sources.pdf. Years refer to 2007 for Brazil, Indonesia and South Africa; 2013 for Brazil, China, India and Indonesia. c.) weighted average.

The gender gap in labour force participation is higher relative to the OECD average for all the countries considered except China and South Africa (Figure 4.14). The gap is highest in India (at over 50 percentage points). In most emerging economies the gap in labour market participation between men and women has shrunk over the past three decades, but it increased in India between 2000 and 2010. Progress has been uneven across countries, with the largest reduction (by about 15 percentage points) recorded in Costa Rica and Colombia.

Figure 4.14. Gender gap in labour force participation rates

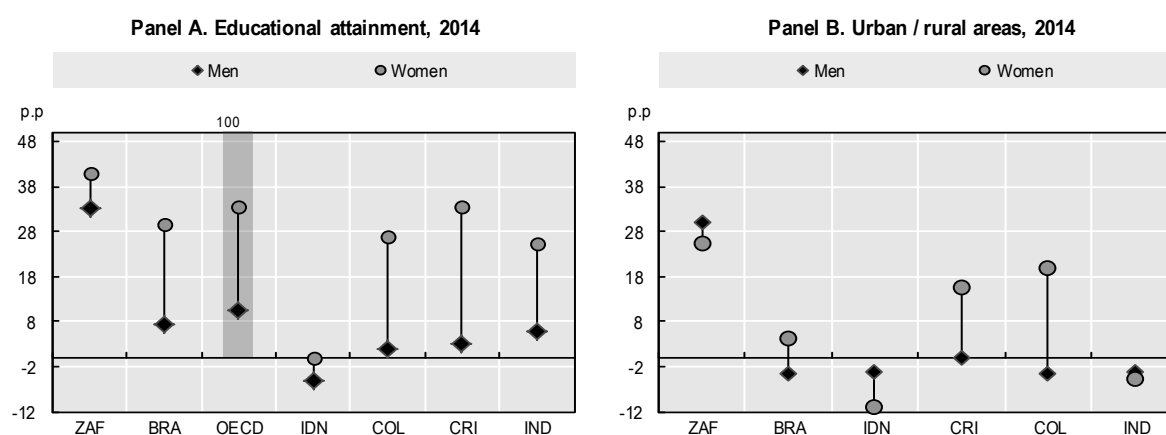
Percentage point differences between male and female labour force participation rates in selected emerging countries, 15-64 years old, 2000-2014.



Source: OECD Labour Force Statistics Database and national labour force surveys and census data (China). Years refer to 2001 and 2011 for Brazil; 2001 for Colombia; 2001 for South Africa; and 2013 for Indonesia.

Labour force participation in emerging countries varies greatly by education, but the gap is either similar to or lower than that for the OECD average. (Figure 4.15, Panel A). In all emerging economies except Indonesia, less educated people have lower participation rates than more educated ones. This participation gap is lower than for the OECD average in India and Latin American countries for both men and women, while it is higher in South Africa.

There are also large differences in labour force participation in urban and rural areas (Figure 4.15, Panel B). While in South Africa, labour force participation is much higher in urban areas (with a difference of 25 to 30 percentage points for women and men, respectively), in India and Indonesia labour force participation is higher in rural than in urban areas. In the Latin American countries, there are small differences in labour force participation of men between urban and rural areas, while for women participation is much lower in rural areas, especially in Colombia.

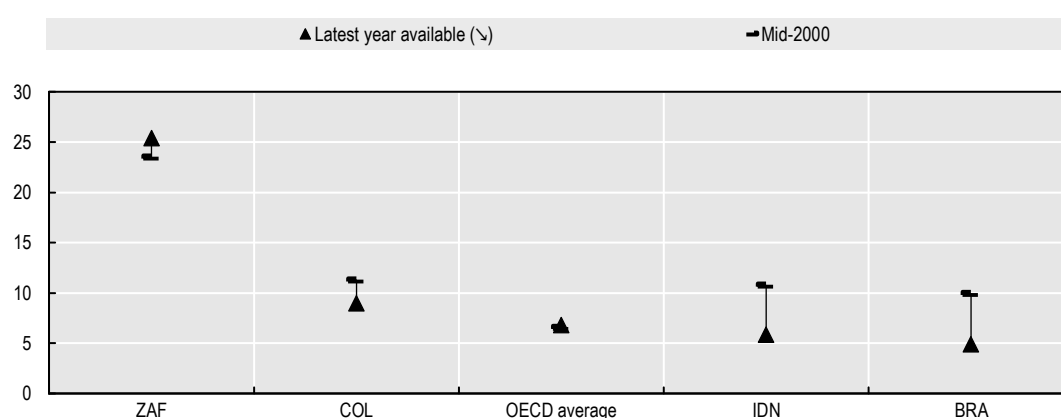
Figure 4.15. Labour force participation gap by education and location, latest year available

Note: OECD is the weighted average of 33 Member countries (Japan not included). Data refer to 2011-12 for India; to 2013 for Brazil, and to 2010 for China.

Source: Panel A: OECD Education Database for Brazil, Colombia, and Costa Rica; and OECD estimates based on the NSS for India, the SAKERNAS for Indonesia, and the QLFS for South Africa.; Panel B: Data provided by the Instituto Nacional de Estadística y Censos (INEC) based on the EHPM and the ECE for Costa Rica; and OECD estimates based on the PNAD for Brazil, the GEIH for Colombia, the NSS for India, the SAKERNAS for Indonesia, and the QLFS for South Africa.

Compared to the OECD average, the unemployment rate is low in most of the selected emerging economies (Figure 4.16). This is because most workers in EEs simply cannot afford to be unemployed, due to the absence of unemployment protection, and many people work in the informal sector. In South Africa, however, unemployment is high and similar to OECD countries with high unemployment such as Greece or Spain. In Colombia, it is also above the OECD average.

Figure 4.16. Overall unemployment rates

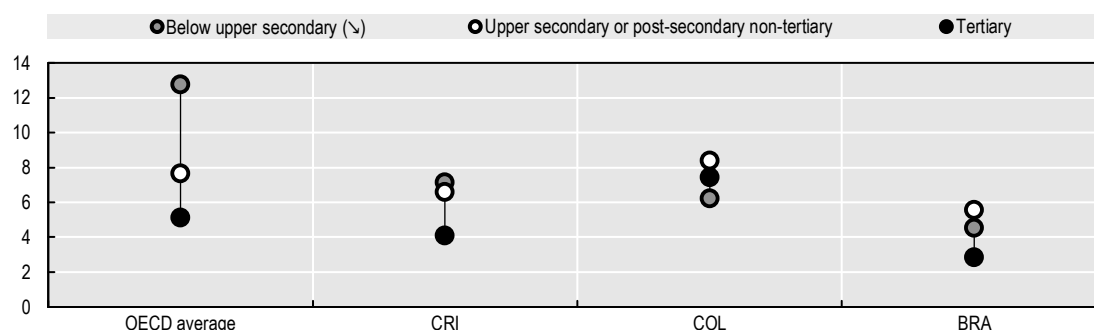


Source: OECD (2016), “Unemployment rate (indicator)”, <http://dx.doi.org/10.1787/997c8750-en> (accessed on 07 June 2016). Years refer to 2014 and 2005 for South Africa; to 2014 and 2007 for Colombia; 2015 and to 2005 for OECD average, Indonesia and Brazil.

In OECD countries, lower educational attainment is associated with higher unemployment risks. This is also the case in Costa Rica but not in Brazil and Colombia (Figure 4.17), where the unemployment risk is highest among adults with upper secondary education. For adults with a tertiary education, the unemployment rate in Colombia is approximately twice as high as in Costa Rica, and almost three times as high as in Brazil. In general, differences in unemployment rates by education are smaller in the three Latin American countries than in OECD countries.

Figure 4.17. Unemployment rates

By education attainment, 25-64 year-olds, 2014.



Source: OECD (2015), Education at a Glance 2015. Data refer to 2013 for Brazil.

4.3.2. Job quality

Labour market inequalities are not limited to the quantity of jobs but extend to its quality. Job quality is here measured based on the three dimensions of the OECD Job Quality Framework (OECD, 2015f): earnings quality, labour market security, and quality of the working environment. Recent work (OECD, 2015f) extended the OECD Job Quality Framework to better suit the conditions of emerging economies countries, by enriching the assessment of labour market insecurity by a measure of the risk of receiving an earning below subsistence level while employed.

Earnings quality is assessed through a metric that combines levels (in PPPs) and inequality of net hourly earnings. On this measure, earnings quality is usually lower for emerging economies than for the OECD average (Figure 4.18, Panel A). This difference is due to both a wide gap in average earnings and much higher levels of earnings inequality. The average level of earnings provides a key benchmark for assessing the degree to which having a job ensures adequate living conditions; how earnings are distributed across the working population is also an aspect of job quality. Among the selected EE countries, earnings quality is lowest in India, Indonesia and Colombia, and highest in Costa Rica and urban China. South Africa features the lowest earnings equality and the highest average earnings (although at a level that is only one-third of the OECD average).

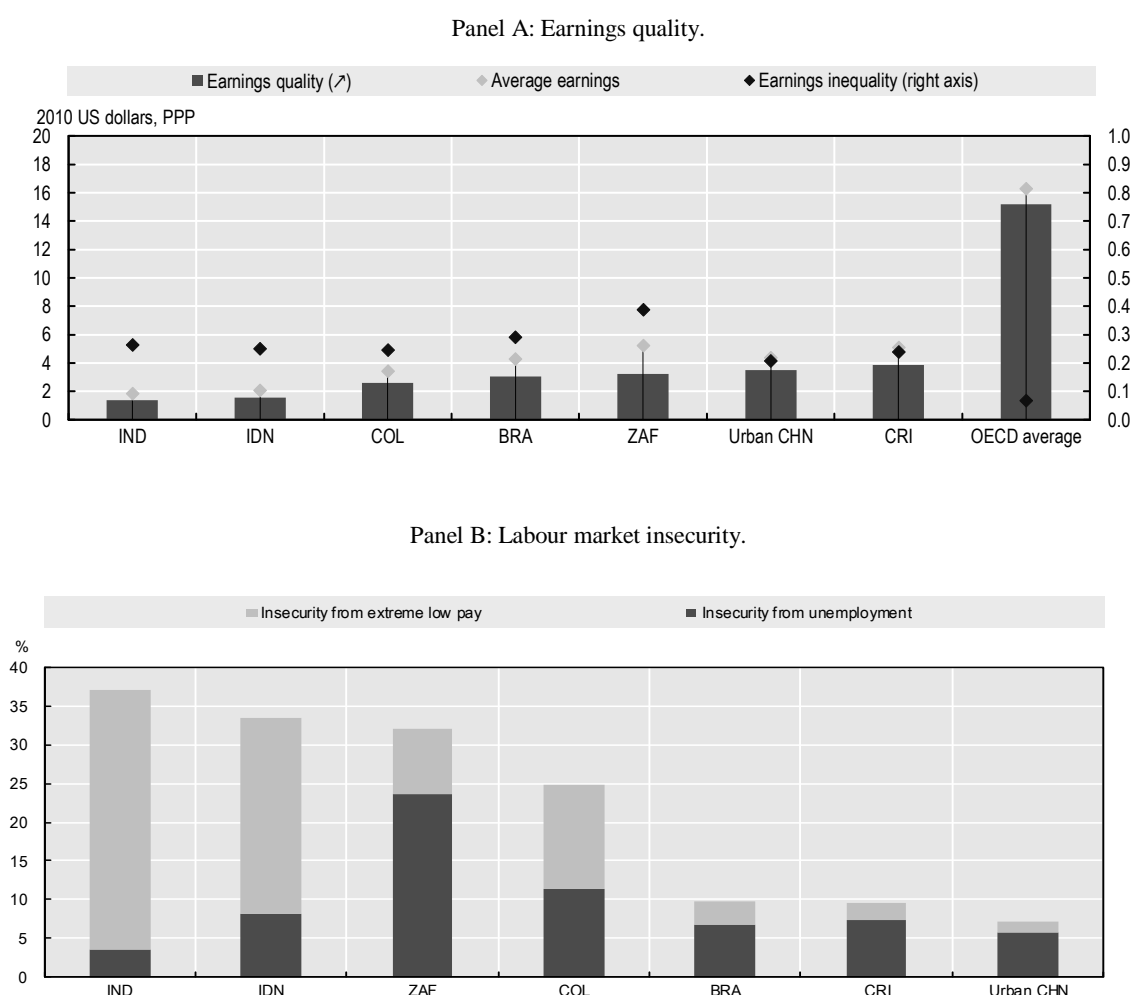
Unemployment insecurity in most emerging economies is close to the OECD average but the risk of falling into extreme low pay¹⁶ is high, making overall labour market insecurity higher in emerging economies than in developed economies (Figure 4.18, Panel B). Most emerging economies provide minimal insurance for the unemployed – due to either very low coverage rates (as in Colombia), or very low replacement rates for covered persons (as in South Africa), or a combination of both (as in Brazil or Costa Rica). Given such low levels of unemployment protection, many workers may accept very low quality jobs when better jobs are not available. The most striking example of this pattern is India, which has

16. The low-pay threshold is set at USD PPP 1 in terms of net hourly earnings and corresponds to a disposable income per capita of USD PPP 2 per day in a typical household of 5 members with a single earner working full time (2013) using the sample of employed individuals. The risk of low pay is calculated by (the scaled transformation of) the probability of entering low-pay status times the inverse of the exit probability; it shows the likelihood that an individual's earnings are below the low pay threshold at any given time.

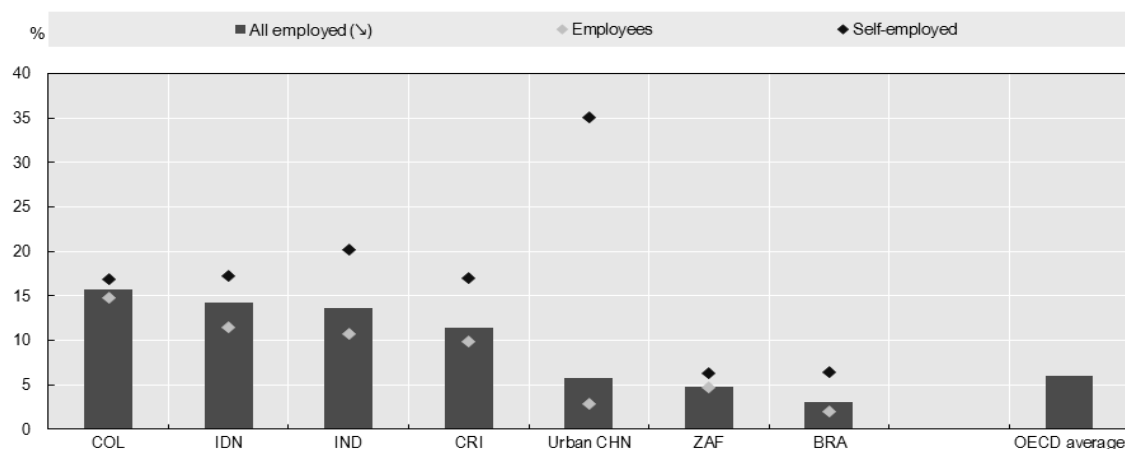
the lowest level of labour market insecurity due to unemployment and a large proportion of workers in subsistence-level jobs. The risk of falling into extreme low pay while employed, which peaks at 25% in Indonesia and 34% in India, represents a second significant source of insecurity. The risk of low pay drives the high levels of labour market insecurity in Indonesia, India and Colombia, while in South Africa the risk of unemployment is substantially higher.

The quality of the working environment, proxied by the incidence of very long working hours, is generally lower in emerging economies compared with the OECD countries (Figure 4.18, Panel C). In Colombia, Indonesia, India and Costa Rica, the incidence of very long working hours is at least twice the OECD average, ranging from 12% to 16%, while this incidence is below 5% in South Africa and Brazil. In all countries self-employed workers report a significantly higher incidence of very long hours than employees do (the most dramatic example of this being urban China).

Figure 4.18. Measures of job quality in selected emerging countries



Panel C: Incidence of very long working hours.

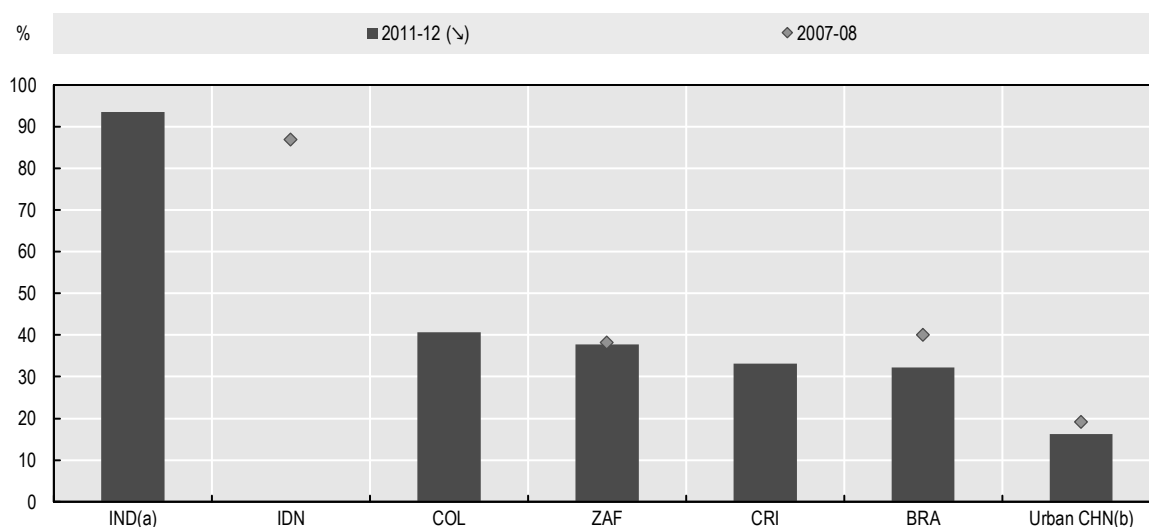


Note: Panel A: Calculations are based on net hourly earnings and refer to 2010, except for Brazil (2009), China (2009) and India (2011). The OECD average is a simple cross-country average of earnings quality, as calculated in the OECD Employment Outlook 2014. Panel B: Overall labour market insecurity is calculated as insecurity of unemployment plus the insecurity from extreme low pay if employed. Calculations are based on 2009-2010 data, except for Brazil (2009-2011), China (2008-2009), Costa Rica (2010-2012), India (2010-2012), and South Africa (2010-2012). Panel C: Working long hours is defined as working more than 60 hours in an average week. Figures represent 2010 values except for Brazil (2011), China (2009) and India (2011).

Source: Panels A to C: OECD (2015), OECD Employment Outlook 2015.

The high incidence of informality in the labour market is one of the most salient features of emerging economies. Figure 4.19 shows that the share of informal employment is highest in Indonesia and India (above 80%) and lowest in urban China (around 20%). South Africa, Colombia, Costa Rica and Brazil have similar levels of informality (between 35% and 40%). In countries where time-series data are available, informality seems to have fallen in recent years, with some of the most significant reductions recorded in Brazil (reflecting specific policies to induce formalisation). Informal jobs tend to be worse in terms of job quality, especially because of their low pay.

Figure 4.19. Incidence of informality



Note: Informality is defined to include: i) employees who do not pay social contribution, except for Colombia where contract status is used; and ii) self-employed who do not pay social contributions (Brazil, China, India, Indonesia) or whose business is not registered (Colombia, Costa Rica, South Africa). Data for India are based on the assumption that all self-employed workers with missing information on paying social contributions work in the informal sector. Data for China refer to 2008 and 2009.

Source: OECD (2015f), OECD Employment Outlook 2015.

4.3.3. Enhancing jobs quality

All emerging economies are striving to develop adequate and effective social protection systems and to promote effective labour laws (e.g. working-time regulations, health and safety legislation, employment protection legislation). Enhancing health and safety and working-time regulations, so as to converge towards international labour standards, as well as promoting formal employment (OECD, 2015f) are key elements of this strategy. In all these countries, labour inspection system should be given sufficient resources to carry out its work effectively. Workplace inspection visits are the basic procedure used by inspectorates to identify informal workers. The number of workers per labour inspector is very high in Colombia, Turkey or Mexico (28 000, 26 000 and about 192 000 respectively, OECD, 2015f). Beyond their number, labour inspectors should be adequately qualified and able to use modern statistical techniques (e.g. statistical profiling to identify workers and firms who are most at risk of informality, selective targeting of enforcement actions.) to increase the efficiency of their work. Improved co-ordination among different government agencies is another ingredient for success. One important lesson that can be drawn from countries' experiences is that good enforcement should be transparent and strict but not be overly harsh, as informality is a means of survival for many people.

More generally, the effectiveness of employment regulation could be enhanced through an adequate design of employment protection legislation and stronger enforcement. Very often, employment protection legislation in emerging economies is strict but poor enforcement makes legislation ineffective. In India, for instance, factories employing more than 100 employees are required to gain permission from the Ministry of Labour before making any dismissals; data from the Ministry of Labour's annual report show that in 2006, only 24 firms were given permission to dismiss a total of 884 workers. Despite this, job destruction rates in large manufacturing firms are high, suggesting that many enterprises

evade this requirement (Venn, 2009). In many Latin American countries, employers do not comply with obligations to pay legally mandated severance payments.

Active labour market programmes such as job subsidies, entrepreneurship incentives and public work programmes can promote job quality. In many emerging economies, specific work schemes and training programmes exist that can complement apprenticeship programmes. These include on the job training programmes (the Joven programmes in Chile, Argentina and Colombia) that combine education, job training and internships. These programmes have generally had a positive impact on formal employment (OECD, 2015f). Public works programmes can also provide social protection and improve longer-term employment outcomes, as in the case of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREG) in India or the Extended Public Works Programme (EPWP) in South Africa (Cazes and Verick, 2013). Yet such schemes often lack sufficient resources (both financial and technical) to be fully effective. While overall spending on active policies in emerging economies is typically well below the levels observed in OECD countries (for instance, Mexico spent 0.01% of GDP in 2007), ALMPs are becoming more common, notably public work programmes and entrepreneurship incentives targeting the most vulnerable groups in the labour market, (Betcherman et al., 2004). These initiatives need to be further scaled up. Maintaining or introducing cost-effective active labour market measures, including counselling and job-search assistance, can facilitate the transition of young workers into jobs and increase the efficiency of the matching process between job seekers and firms.

Policies to curb informality can increase the incidence of quality jobs. Policy interventions to reduce informality should follow a comprehensive approach that rests on three pillars: increasing the benefits of formality, decreasing the costs of formalisation, and improving enforcement methods.

- First, firms and workers need to recognise the benefits of formalisation. Governments should improve the quality of the public services they deliver and strengthen the link between contributions and benefits in social protection schemes. Better public services will increase people's trust in their governments and strengthen their motivation to join the formal sector. The introduction of individual unemployment saving accounts in Chile is a good example of how the costs of formalisation can be linked to its benefits, providing incentives to workers to join the formal sector. Another example is South Africa, where domestic workers were included in the Unemployment Insurance Fund in 2003 and increasingly brought into the formal sector.
- Second, the costs of formality should be lowered for employers and the self-employed. Simplified tax and administrative systems, streamlined registration processes and a reduction in red tape are crucial steps in this direction. Brazil provides a good example of the benefits of this approach. Over the past two decades, Brazil adopted a number of measures to reduce the costs of formality, such as the "Simples Law" that introduced a more progressive tax structure and simplified the collection of taxes and social security contributions. These measures may have contributed to the formalisation of 500 000 microenterprises, accounting for 2 million jobs, from 2000 to 2005 (Delgado et al., 2007).
- Third, enforcement methods should be improved. Enforcement agencies, such as labour inspectorates, should be given sufficient resources to carry out their work effectively.

When implementing these recommendations, policy makers need to tailor them to the specific context in which they are operating, and be mindful of potential adverse effects. For instance, in some emerging economies, the formalisation process has been achieved at the cost of an increased casualisation of the (formal) workforce (as was the case in Colombia and Indonesia). Since temporary jobs are typically of lower quality, this is not a good outcome. Finally, it is important to emphasise that these measures are likely to be most beneficial for workers on the verge of formalisation. As argued by La Porta and Shleifer (2014), informality is ultimately the result of both demand (i.e. high demand for basic products supplied by informal firms) and supply factors (i.e. poor skills). Many (possibly most) informal firms are fundamentally different from formal ones, and they would be unable to compete in the formal economy even if the costs of formalisation were low. Forcing these firms to enter the formal economy may simply drive them out of business. More generally, policy measures need to be growth-friendly, since the general process of development tends to reduce the size of the informal sector (La Porta and Shleifer, 2014). It will also be important to foster skill accumulation, especially entrepreneurial skills, which are a fundamental driver of development.

4.4. Subjective well-being

People are the best judges of their lives, and how people experience their life circumstances is an important dimension of their well-being. Although sometimes dismissed as a concern limited to rich countries, measures of subjective well-being are relevant for developing countries as well. Knowing how people evaluate, experience and give sense to their lives is important both for understanding how they behave and for designing appropriate policies in all countries, irrespective of their level of economic development (Boarini et al., 2014). Issues such as dignity, shame and frustrated aspirations can be addressed through people's assessments of their own subjective well-being. At a more instrumental level, there is also considerable evidence showing that higher life satisfaction has economic and social pay-offs. For example, workers who are more satisfied with their job tend to be more productive while, in both developing and developed countries, higher levels of self-reported subjective well-being are associated to higher levels of social connections (Calvo et al., 2012).

Two indicators of subjective well-being are used in this section:

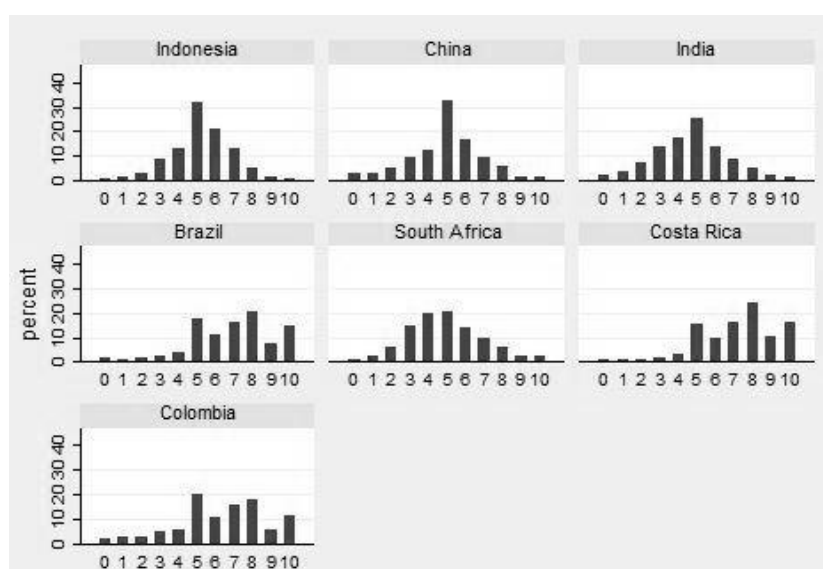
- Life satisfaction captures a reflective assessment by respondents on how things are going in one's own life. Measures of life satisfaction are a useful complement to more traditional indicators based on objective conditions. While measures of life evaluations have started to be routinely produced in most OECD countries, this is not yet the case for emerging economies. Until better official statistics of subjective well-being are developed in these countries, data from non-official sources need to be used. The data shown here are drawn from the *Gallup World Poll*, which uses the Cantril ladder question asking respondents to value their current lives on a 0 to 10 scale, with the worst possible life as a 0 and the best possible life as a 10. Small sample sizes and the impact of cultural factors on response styles suggest caution in cross-country comparisons.
- The second indicator refers to feelings or emotional states of people at a specific point in time. Measures of people's feelings capture the immediate effects of many activities on people's experienced well-being, and provide information that complements that provided by life evaluations. Measures of positive affect capture experiences of positive feelings such as happiness, joy and contentment. Measures of negative affect capture experiences of negative feelings such as worry, sadness

or depression. Positive and negative affect are combined here into a measure of “affect balance”. The indicator of affect balance presented in this section is based on three positive emotions (enjoyment, feeling well-rested, and smiling or laughing a lot) and three negative emotions (worry, anger and sadness) experienced yesterday; this indicator takes a value of 1 when the positive emotions experienced by each respondent outnumber the negative ones and 0 otherwise. Data are drawn from the *Gallup World Poll*, and the caveats described above apply.

4.4.1. *Life satisfaction*

Across the emerging economies covered in this report, the gap between countries with the highest average life satisfaction and those with the lowest is approximately 2.5 points on an 11-point scale; this is comparable to the gap between Denmark, the OECD country with the highest life satisfaction, and Hungary, the OECD country with the lowest level. The emerging economies considered here usually show average levels of life satisfaction below those of most OECD countries. However, large variation in life satisfaction exists: India and South Africa have relatively low levels of average life satisfaction, with average scores below 5. By contrast, Latin American countries have higher average levels of life satisfaction. Differences in cultural patterns of response have been advanced to explain this “Latin American” paradox, with Latin Americans more likely to record extreme scores. This pattern is highlighted in Figure 4.20, where the share of those reporting values equal or larger than 7 is much higher in Brazil, Colombia and Costa Rica than in other emerging economies.

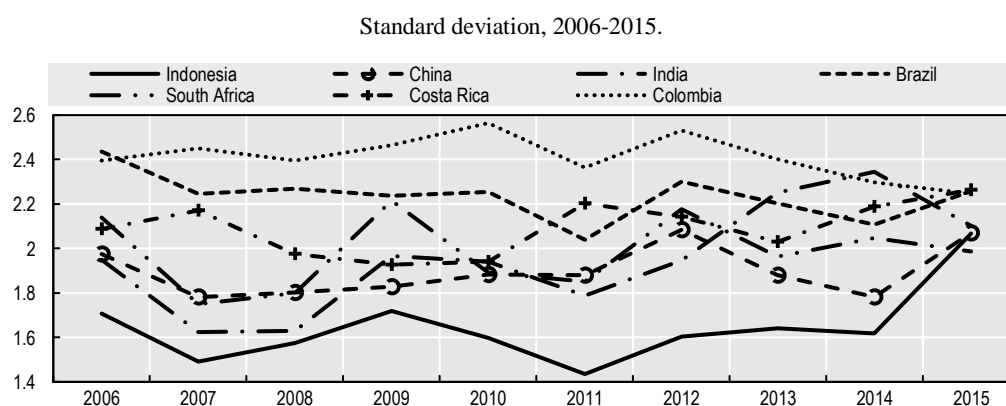
Emerging countries differ not only in average life satisfaction but also in the distribution of answers. In China, India, Indonesia and South Africa, the distribution of life satisfaction is approximately normal, centred around the middle of the scale, while Latin American countries exhibit a multi-modal distribution with peaks at 5, 8 and 10. Similar variation in the distribution of answers is found among OECD countries, with approximately normal in Nordic and English-speaking countries, and multi-modal distributions common in continental and eastern Europe (Figure 4.20).

Figure 4.20. The distribution of life satisfaction

Note: Data are pooled across all available years 2006-15.

Source: OECD Secretariat calculations based on data from the Gallup World Poll, www.gallup.com/services/170945/world-poll.aspx.

Differences in life satisfaction are as important within each emerging country as they are among them. Following previous research, the standard deviation is used here to measure inequality in life satisfaction within each country (Kalmijn and Veenhoven, 2005). Based on this measure, inequality in life satisfaction is largest in Latin-American countries (e.g. Brazil, Colombia and Costa Rica) and around or above 2 in nearly all the countries considered here (with the exception of Indonesia, which exhibits a level of inequality in life satisfaction close to the OECD average). Figure 4.21 shows how inequality in life satisfaction has changed over time in selected emerging countries, rising steadily in the late 2000s but falling sharply around 2010-2011. Since then, inequality in life evaluations followed different patterns across countries, increasing in China, Costa Rica, India and Indonesia, and falling in Brazil, Colombia and South Africa.

Figure 4.21. Within-country inequality in life satisfaction

Source: OECD Secretariat calculations based on data from the Gallup World Poll, www.gallup.com/services/170945/world-poll.aspx.

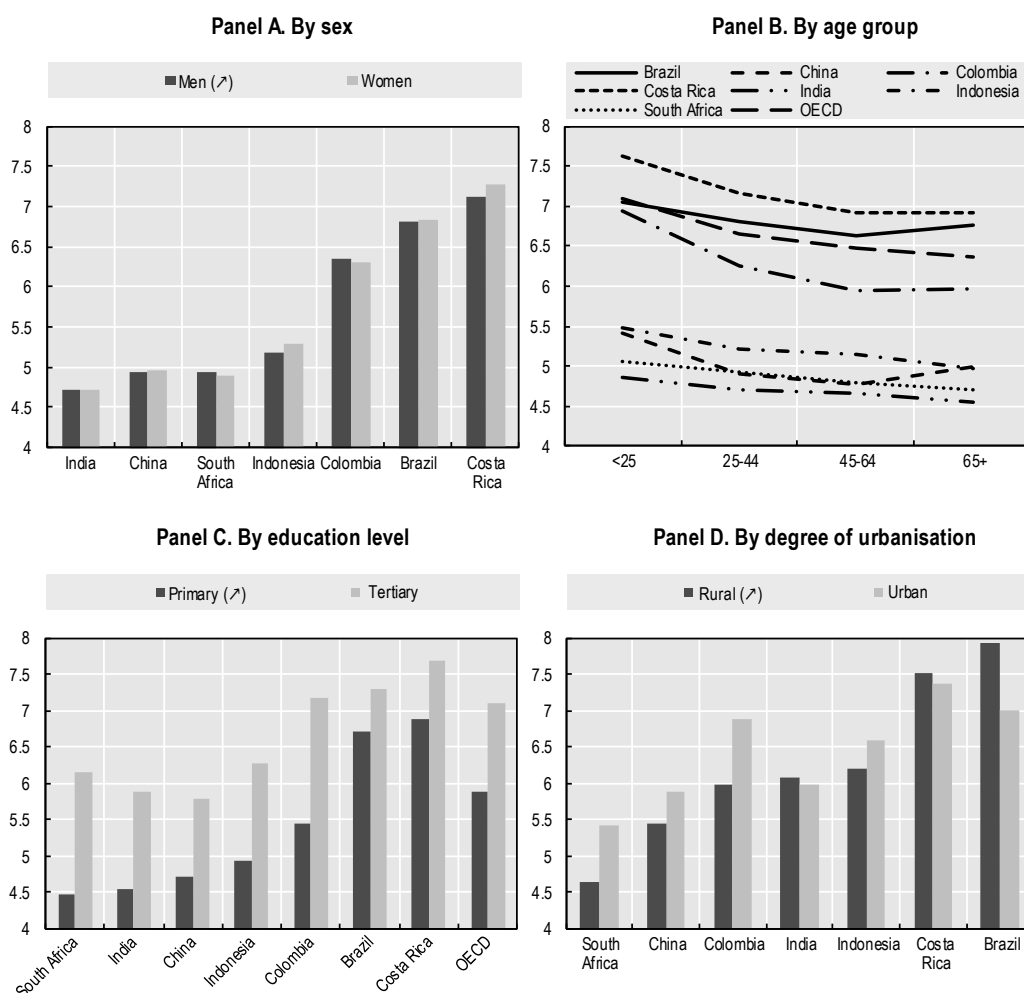
A different way to assess inequalities in life satisfaction is to consider average scores among various population groups. As in most OECD countries, differences by gender are in general very small relative to differences between the “happiest” and “most miserable” groups within a country (Figure 4.22, Panel A). Differences among age groups are more marked. While in most OECD countries life satisfaction is U-shaped in age, in all the emerging considered here average life satisfaction is highest for the youngest age group, falling steadily in older ages, with the lowest level recorded at the higher end of the age spectrum. Differences between the youngest and oldest age groups are largest in Colombia and Costa Rica (above 0.7 points), but smaller (below 0.5) in the other emerging economies under analysis (Figure 4.22, Panel B).

In all countries, low levels of education are associated with lower levels of life satisfaction. This effect is smallest in Brazil (0.6 points) and largest in Colombia and South Africa (1.7 points), while in China and Indonesia the gap in life satisfaction between people with tertiary and primary education is comparable to that found in the average OECD country (1.2 points, Panel C). Previous research has shown that the correlation between life satisfaction and education tends to weaken when measures of income and health status are also included in the analysis (Boarini et al., 2012); this suggests that education may contribute to subjective well-being primarily through its impact on other life outcomes.

Recent research has also found that, in poorer countries, households living in urban areas report higher life satisfaction than households in rural areas (Easterlin et al., 2011). Figure 4.22, Panel D confirms that in Colombia, China, Indonesia and South Africa urban dwellers are more likely to report higher life satisfaction than their rural counterparts, while the reverse holds true in Costa Rica, India and Brazil. The larger spatial gap in favour of urban residents is in Colombia (0.9 points); an equal but opposite difference is recorded in Brazil (Panel D).

Figure 4.22. Inequalities in life satisfaction by gender, age, education and place of residence

Cantril Ladder, mean value.



Note: Data are pooled across all available years 2006-15.

Source: OECD Secretariat calculations based on data from the Gallup World Poll, www.gallup.com/services/170945/world-poll.aspx.

4.4.2. Affect balance

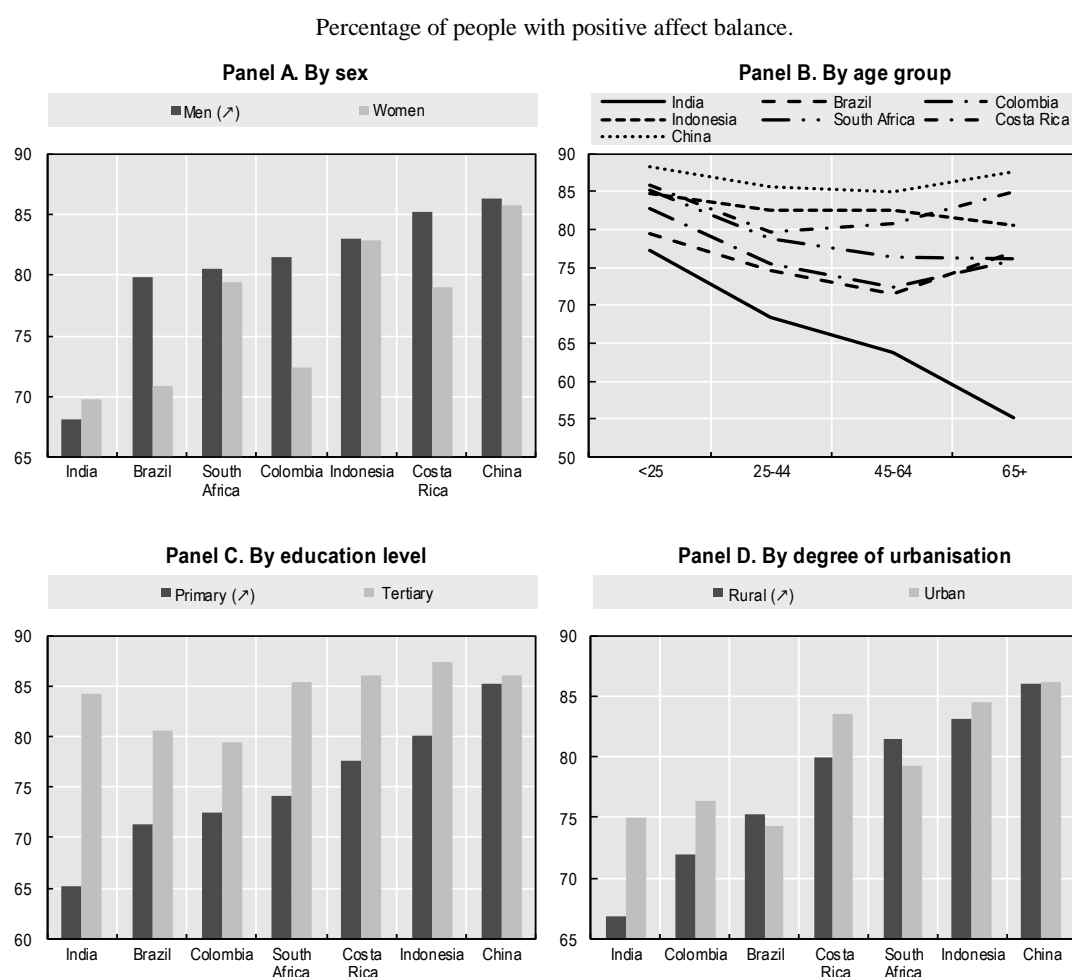
Most people in the emerging countries considered in this report experience a preponderance of positive affect over negative affect. There is, however, some variation in the share of respondents experiencing a positive affect balance. In Costa Rica, Indonesia and China, over 80% of the population reported experiencing more positive than negative emotions in the previous day. In Brazil and Colombia, this percentage stands at 75%, close to the level observed in the average OECD country (76%). In India, less than 70% of the population reported having experienced more positive than negative emotions during the previous day.

In four of the seven emerging countries considered here (i.e. Brazil, Colombia, Costa Rica and South Africa), men are more likely than women to report a positive affect balance, while in the reverse holds true in India and no gender differences are found in China and Indonesia. The gender gap in affect balance is highest (9 percentage points) in Brazil and Colombia (Figure 4.23, Panel A), at levels similar to those found in Southern European

OECD countries. The share of people reporting positive affect balance is highest among people aged less than 25; for higher ages, patterns differ across countries. In India, affect balance decreases steadily over the life-course, while in Indonesia and South Africa it remains stable after an initial decline. U-shapes in the age distribution of affect balance, similar to those found in most OECD countries, prevail in China and Latin American countries, although with a lower rebound in the older age groups in Colombia (Figure 4.23, Panel B).

Looking at education groups, low levels of education are generally associated with lower affect balance, with large differences between people with tertiary and primary education in India (20 percentage points, Panel C). Evidence of spatial differences in affect balance is mixed: in a small majority of emerging countries, urban residents are more likely to report positive affect balance than their rural counterparts, with this gap being largest (8 percentage points) in India. However, the reverse holds true in Brazil and South Africa, while in China urban and rural respondents are equally likely to have experienced positive affect balance during the previous day (Figure 4.23, Panel D).

Figure 4.23. Inequalities in affect balance by sex, age, education and place of residence



Note: Data are pooled across all available years 2006-15.

Source: OECD Secretariat calculations based on data from the Gallup World Poll, www.gallup.com/services/170945/world-poll.aspx.

5. Multi-dimensional living standards

The gaps in income, unemployment and longevity relative to the OECD average can be summarised with the help of an index of the Multi-Dimensional Living Standards for the median household (MDLS), which aggregates average income, longevity, unemployment and income inequality into a single monetary index as explained in Box 5.1.

Box 5.1. The construction of Multi-Dimensional Living Standards

To express life expectancy and the unemployment rate into monetary terms, OECD research used the method of “equivalent income” (Samuelson, 1974; Fleurbaey and Gaulier, 2009; Fleurbaey and Blanchet, 2013), i.e. the income gain that would yield the same increase in welfare than a given improvement in non-income dimensions. As an example, Brazilian people could be indifferent between their current situation and having a lower income but the same longevity as in Japan; the decrease in income that compensates for this increase in longevity constitutes the monetary value of the longevity gap between Brazil and Japan (the country where life expectancy is highest, and which is hence used as the “longevity benchmark”). The same reasoning can be applied for the unemployment rate, when a zero unemployment rate is selected as the benchmark. As a result, the monetary values of longevity and unemployment take the form of a reduction in income from current levels, namely a penalty applied to average income.

This monetisation of non-income dimensions requires the computation of “shadow prices”, which can be viewed as the “exchange rates” between income and non-income dimensions. Shadow prices of longevity and unemployment are country-specific as they depend on the level of income, longevity and unemployment. In the case of OECD countries, Boarini et al. (2016) show that the shadow price of longevity increases as people become richer, and decreases as people live longer.

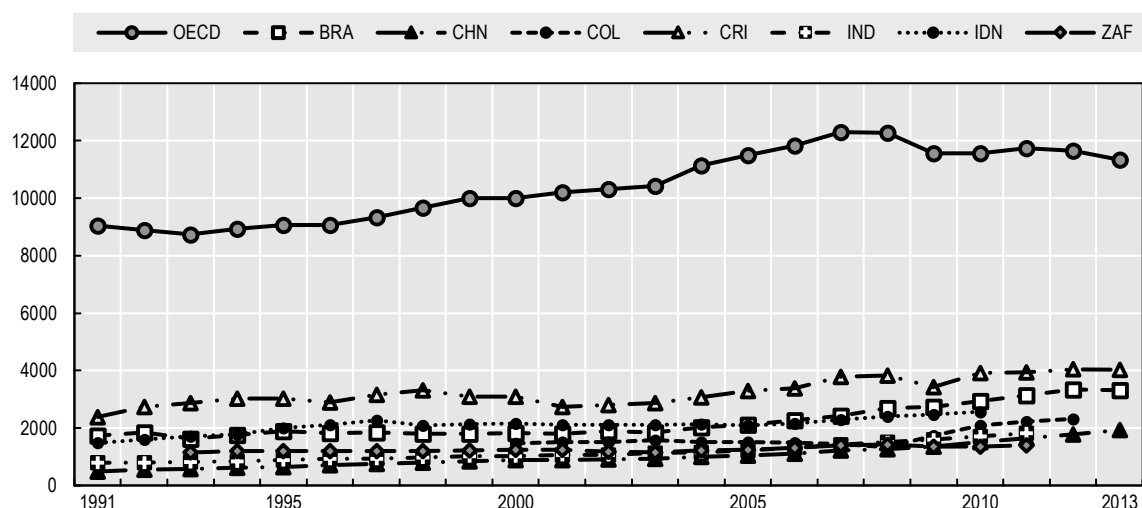
In addition, in the MDLS calculation, a penalty is applied to average income to reflect the degree of income inequality that prevails in each country (Kolm, 1969; Atkinson, 1970). This penalty depends on a parameter of aversion to inequality, which can be calibrated so that the inequality penalty corresponds to the gap between the average and median incomes. In most of the results described below, multi-dimensional living standards represent the living standards (i.e. equivalent income) of the median household in the country. However, another choice of the inequality aversion parameter allows to proxy the living standards of the poorest 10% of people.

From a public policy perspective, shadow prices are an attractive tool for policy-discussion, as they express the progress made in the areas of health and labour market in a way that is simple and easy to communicate to people. For instance, the monetary value of one additional year of longevity for Brazilian people is set as equal to 6.6% of their income in 2013. Given that life expectancy at birth in Brazil has increased at a pace of about 5 months per year (i.e. 0.4 years of longevity each year over the 1991-2013 period), this implies that, in MDLS terms, Brazilian people have recorded every year an equivalent income gain of 2.2%.

Based on World Development Indicators (2016), Figure 5.1 shows that the emerging economies considered in this paper are quite far from the average OECD living standards,

despite the convergence observed over the 1991-2013 period for all countries but South Africa. Multidimensional living standards expressed as a share of the average OECD MDLS increased from 19% to 29% in Brazil, from 5% to 17% in China, from 26% to 35% in Costa Rica, from 16% to 22% in Indonesia, from 9% to 15% in India; while they fell from 13% to 12% in South Africa. Brazil, Costa Rica and Indonesia are the emerging countries that, on this metric, are closer to the OECD average level.

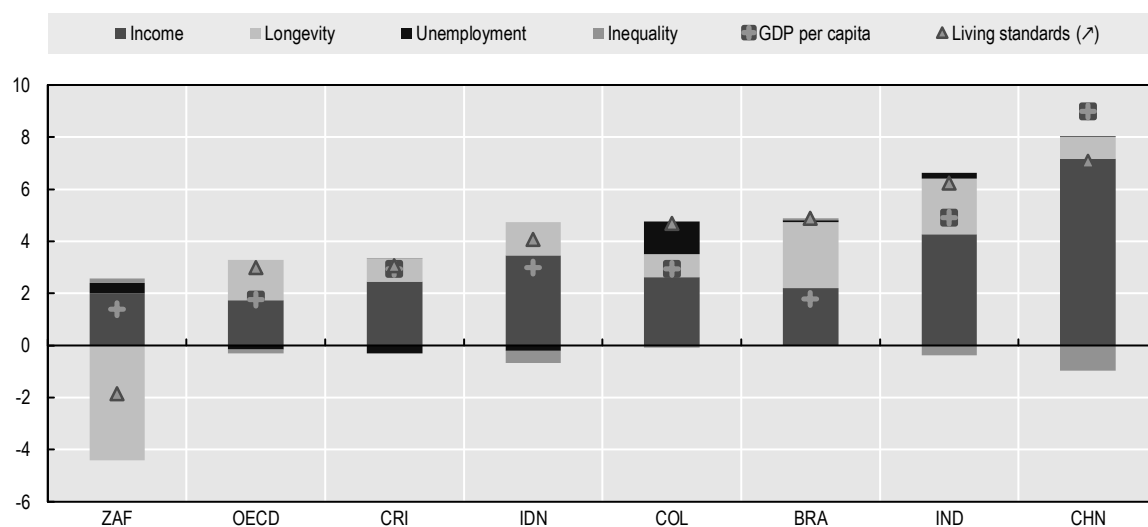
Figure 5.1. Multidimensional living standards of the median household 1991-2013



Source: World Development Indicators (2016) and OECD calculations.

Figure 5.2 sheds light on the main drivers of progress in MDLS over the period. Among OECD countries, MDLS has increased at a pace of 3.0% per year, with almost equal contributions of income and longevity growth, and smaller (negative) contributions due to higher income inequality and unemployment. South Africa is the only emerging economy where MDLS growth has been weaker than in the OECD due to lower longevity in the 1990s and 2000s during the HIV/AIDS epidemics. In other emerging countries, growth of MDLS was faster than in the OECD area, especially in India (6.2%) and China (7.1%), where income growth was the main driver of higher living standards.

Figure 5.2. The drivers of progress in living standards 1991-2013



6. Conclusions

The distribution of income and non-income dimensions in the seven emerging economies analysed in this paper is far more unequal than in OECD countries. All seven emerging economies have levels of income inequality that are higher than in the five most unequal OECD countries, with the lowest inequality (among the emerging economies reviewed here) recorded in Brazil and the highest is in South Africa. Relative income poverty (the share of people living with income below 50% of median income in each country) are also twice as high in these emerging countries than in the OECD average, with China having the highest level of relative poverty and India the lowest.

Computing inequality estimates for emerging countries that satisfy minimal comparability requirements (both across emerging countries and with respect to OECD countries) is challenging. This income inequality estimates in this paper rely on a concept of *household disposable income* (net of taxes and public transfers, to the extent that these are properly measured in the surveys used here) *corrected for household size* (using the same equivalence scale used for OECD countries) and are based on the same income components and definitions that are currently used by the OECD for its member countries. For all the emerging economies studied, these estimates were undertaken on the backdrop of an assessment of the data quality of the various surveys available for the same country (described in Annex B). This assessment has examined the methodological features of the various surveys, and compared levels and trends of various inequality indicators based on them. Based on this assessment, a set of more comparable estimates of household income and its distribution has been generated for each of these countries. These indicators provide a basis for a better understanding of the depth and trends of income inequality in emerging economies with the aim to enhance cross-country comparability.

For other dimensions of inclusive growth, the emerging economies under review tend to perform worse than most OECD economies in terms of average outcomes. In the field of education, they record lower enrolment rates in secondary education, lower attainment levels of tertiary education and lower students' test scores. In the field of labour market performance, the seven emerging economies tend to feature lower job quality, while in terms of health they have lower life expectancy. Life satisfaction ranges from a score of 4.3 in India to 6.8 in Costa Rica, where it is similar to the OECD average. In contrast, people in emerging economies report lower levels of disability, while labour force participation is higher in some emerging economies (e.g. China) than in the OECD.

For all non-income dimensions, this paper examined the distribution of well-being outcomes by gender; place of living and age. In terms of *gender gaps*, outcomes differ greatly by dimension: while self-reported disability tends to be higher for women, gender differences between countries tend to be smaller than in OECD countries in Costa Rica, China, India and Indonesia, and comparable to the OECD in the others emerging economies examined. The difference in disability rates between men and women is small in China, Indonesia and Costa Rica but higher in Colombia. Gender differences are small in life satisfaction and student test scores, but large for labour force participation.

Inequalities between *urban and rural areas* are very important across all dimensions. For education, enrolment rates at tertiary level are twice as high in urban than in rural areas in Costa Rica, and six times higher in Brazil. Rural residents are also more likely to report poor health or disability, compared to their urban counterparts, to a higher degree than in

OECD countries. The difference in self-reported disability between rural and urban areas is small in Indonesia but much higher in Colombia and Costa Rica. On the other hand, income inequality tends to be higher in urban in rural areas in all emerging economies countries except China.

While there are large inequalities by *age* in many dimensions, they tend to differ from the age-risk profile prevailing in OECD countries. In particular, poverty risks are higher for the young and tend to decline with age in several emerging economies (especially in Brazil and South Africa), while in OECD countries poverty risks are typically U-shaped in age. The opposite pattern is observed for life satisfaction, with the highest life satisfaction among young people in emerging economies as opposed to a U-shaped pattern in OECD countries.

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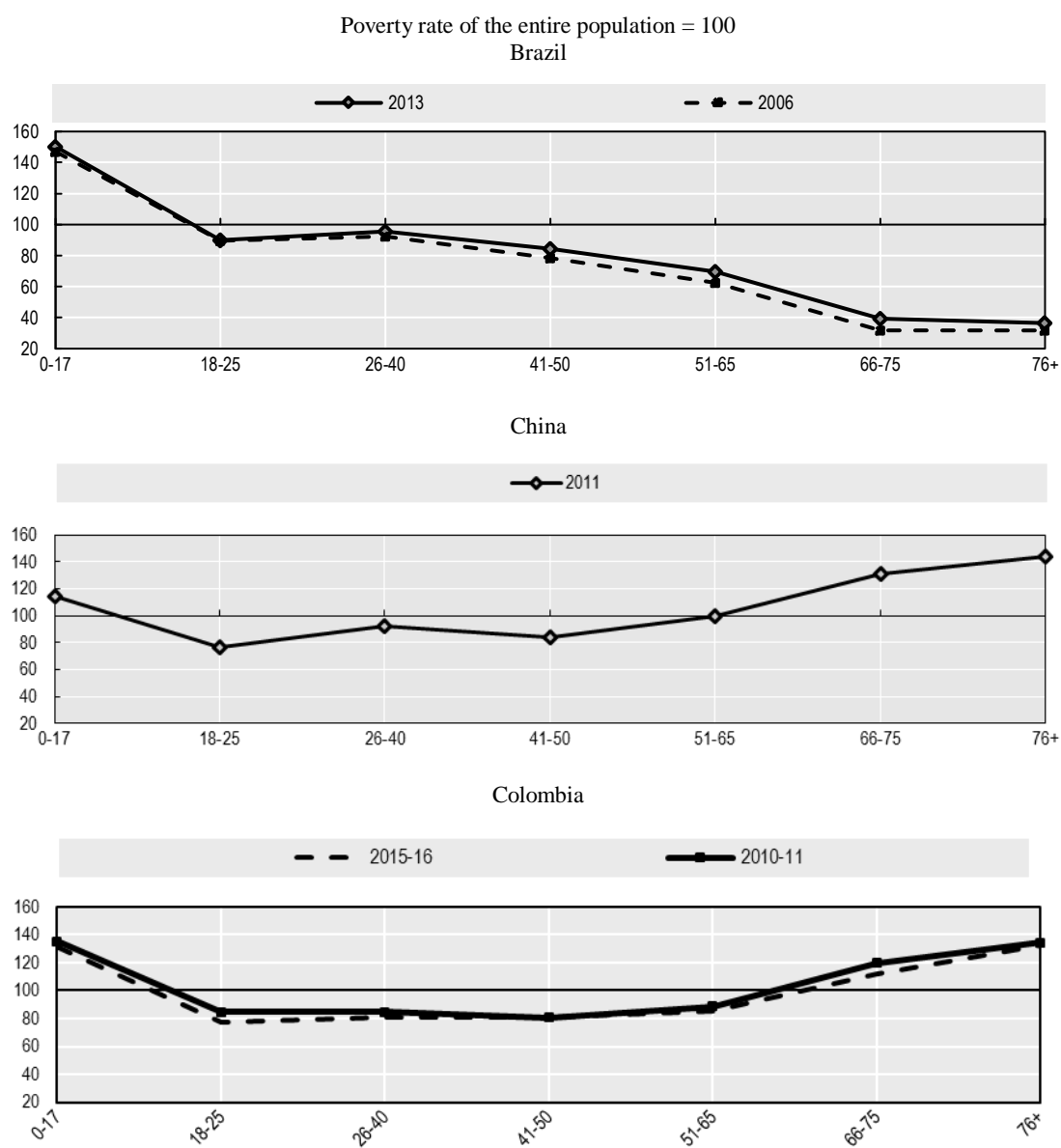
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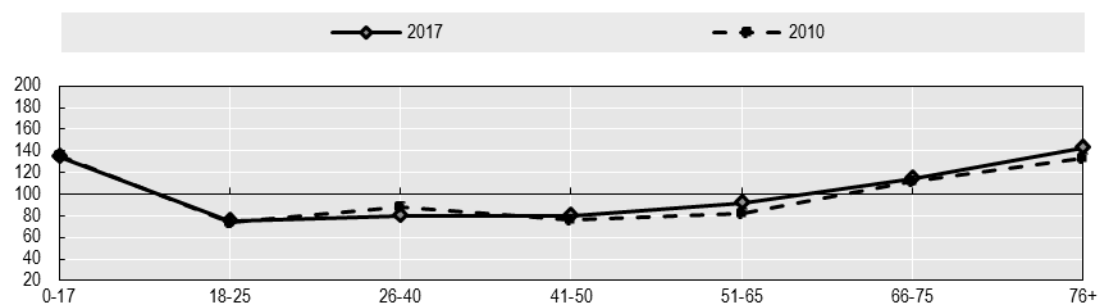
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Annex A. Additional tables and figures

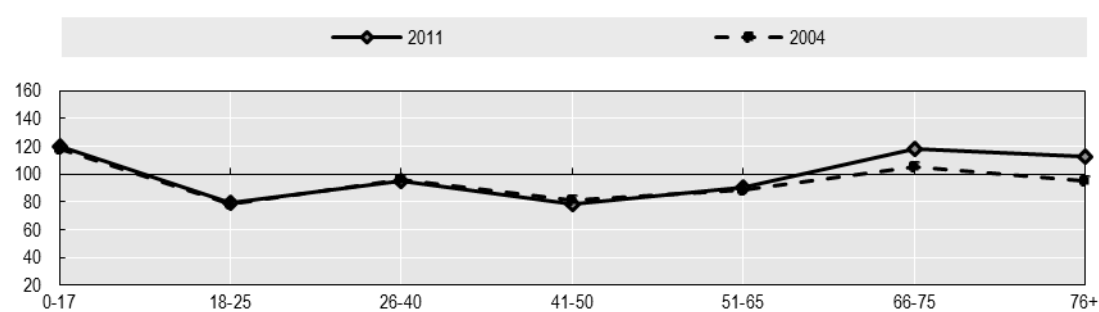
Figure A A.1. Relative poverty risk by age and country



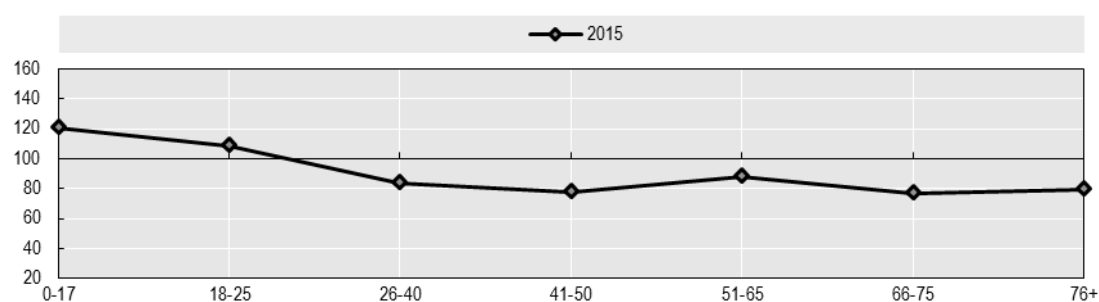
Costa Rica



India



South Africa



Annex B. Data quality assessment of statistics on the distribution of household income in selected emerging economies

This Annex presents a review of the quality of the available data on income distribution in a range of emerging countries (Brazil, China, Colombia, Costa Rica, India, Indonesia, and South Africa) covered in this paper. This review uses as reference point the conventions and definitions underpinning the OECD Income Distribution Database (IDD), and thereby assesses the possibility of producing income distributions estimates for these emerging countries that are as comparable as possible to those available for OECD countries. The conclusions of this review have led to the inclusion into the OECD IDD of estimates for Brazil, China, Costa Rica, India and South Africa since summer 2017. These estimates are sourced from a combination of official (Brazil and Costa Rica) and non-official (China, India, South Africa) surveys. Even when the primary source underpinning these estimates is a survey undertaken by a national statistical office, the underlying microdata differ from those used for national reporting as they reflect the imputation of information of taxes paid by households through micro-simulation models. This Annex first describes the key features of OECD Income Distribution Database, and then reviews statistical quality of national statistics for the six emerging countries.

The OECD Income Distribution database

In order to benchmark countries-performance in the area of income inequality and poverty, the OECD has developed over the years a statistical infrastructure which makes use of a number of standardised concepts. While inequalities and poverty are not only, or even mainly, about income, statistical information on the distribution of household incomes can be compared across all OECD member countries in a more reliable way than that for various non-monetary dimensions. This is why the [OECD Income Distribution Database](#) focuses on incomes. A number of methodological and conceptual choices have been made for the OECD IDD to ensure the highest possible degree of comparability across countries. These are discussed below and include the income definition, the unit definition, the adjustment for household needs, the poverty definition, and the reporting period.

The unit of observation is the household but all income distribution indicators refer to persons. The database covers three separate panels referring to the entire population, to the population of working age (18 to 65) and of retirement age (66 and over), respectively.

Income definition

The definition of income on a micro level is not trivial. As a matter of fact, many countries use significantly different definitions for national publications on poverty and inequality based on income, e.g. gross income (Brazil); net income before housing costs (Germany); net income after housing costs (United Kingdom); or pre-tax post-social security contribution income (France).

The definitions used in calculating these income components are based on the recommendations adopted by the “Canberra Group on household income statistics” (Franz et al., 1998; UNECE, 2011), available at www.lisproject.org/links/canberra/finalreport.pdf, and are also used by the European Union as a yardstick in the frame of inequality and “at-

risk-of-poverty indicators”.¹⁷ Figure A B.1 sets out the standard framework. In this framework, income from wages and salaries, self-employment and property sum to “factor income”; factor income plus occupational pensions gives “market income”; market income plus public and private transfers, as well as other types of cash income, produces “gross income”; finally, gross income minus personal income taxes and employees’ social security contributions gives “cash disposable income”. This last concept is used as the main measure of household well-being. The approach set out in Figure A B.1 is an accounting framework that allows different components of income to be related to each other and suitable aggregates to be derived. As of 2012, the OECD income definition includes the value of goods produced for own consumption as an element of self-employed income.

Figure A B.1. The income accounting framework

| <i>Income component</i> |
|----------------------------------------------------------------------------|
| Gross wages and salaries from dependent employment |
| + |
| Self-employment income |
| + |
| Capital and property income |
| = |
| 1. Factor income |
| + |
| Occupational and private pensions |
| = |
| 2. Market income |
| + |
| Social security cash benefits (universal, income-related, contributory) |
| + |
| Private transfers |
| + |
| Other cash income |
| = |
| 3. Gross income |
| - |
| Income tax (and employee social security contributions) |
| = |
| 4. Cash disposable income |

Note: income refer to household income, i.e. income sources of all household members are pooled together.

Source: Förster and Mira d’Ercole (2009).

Unit definition

The questionnaire used by the OECD to report income distribution indicators describes the distribution among people rather than among households. This implies that, while the definition of income is that of household income, the income of the household is attributed to each of its members, irrespectively of who in the household receives that income. Technically, it means that a couple with two children in poverty is counted four times rather than once.¹⁸ It also assumes equal sharing of resources within a household. This may

17. Before shifting to income in the mid-1990s, the European Community used consumption as a poverty yardstick, namely 50% of the mean equivalent household expenditure, arguing that “household expenditure is a more reliable indicator for permanent income” (Eurostat, 1990).

18. Focusing on individuals rather than households has also been based on the argument according to which each individual in society should be treated as “equal citizen” in the distribution (Jarvis

conceal an unequal distribution of income between men and women and between different generations within a household.¹⁹ It has been shown, however, that differences between measures based on those two reference unit definitions (households and persons) are not very large, especially under a comparative perspective (Eurostat, 1990).

Equivalence scale

In the OECD questionnaire definitions, incomes are reported on an “equivalised” basis. That is, incomes are adjusted to reflect differences in needs for households of different sizes. With the help of equivalence scales each household type in the population is assigned a value in proportion to its needs. Incomes reported in the OECD database on income distribution and poverty are adjusted by a scale which divides household income by the square root of household size. This implies that, for instance, a household of four persons has income needs twice as large as one composed of a single person.

Figure A B.2 illustrates how needs are assumed to change as household size increases, for the OECD square root scale and four alternative equivalence scales, including the two “extreme” cases of no sharing of resources within household (per-capita income) and full sharing (household income). Note that, in general, there is no accepted method for determining equivalence scales, and no equivalence scale is recommended by the OECD for general use.

Figure A B.2. Equivalence scales for adjusting incomes for needs of different household sizes

| Household size | Equivalence scale | | | | |
|--------------------------------|-------------------|-----------------------------------|----------------------------------------------------|--------------------------------------------------------|------------------|
| | per-capita income | “Oxford” scale (“Old OECD scale”) | Scale used in EU-reporting (“OECD-modified scale”) | Scale used in OECD questionnaire (“Square root scale”) | Household income |
| 1 adult | 1 | 1 | 1 | 1 | 1 |
| 2 adults | 2 | 1.7 | 1.5 | 1.4 | 1 |
| 2 adults, 1 child | 3 | 2.2 | 1.8 | 1.7 | 1 |
| 2 adults, 2 children | 4 | 2.7 | 2.1 | 2.0 | 1 |
| 2 adults, 3 children | 5 | 3.2 | 2.4 | 2.2 | 1 |
| <i>Elasticity</i> ¹ | 1 | 0.73 | 0.53 | 0.50 | 0 |

Note: Using household size as the determinant, equivalence scales can be expressed through an “equivalence elasticity”, i.e. the power by which economic needs change with household size. The equivalence elasticity can range from 0 (when unadjusted household disposable income is taken as the income measure) to 1 (when per capita household income is used). The smaller the value for this elasticity, the higher the economies of scale in consumption.

and Micklewright 1995). It also has been included in recommendation 9 in Atkinson et al. (2002) with the argument that “individuals are at the heart of our concern”.

19. For a discussion of intra-household and intra-family inequality and possible effects on poverty and distribution estimates, see for example Haddad and Kanbur (1990), Jenkins (1991), Sutherland (1997) or Orsini and Spadaro (2005).

Treatment of negative income

Once the equivalent household member adjustments are done, using the equivalence elasticity under consideration, the individual components of market income showing negative values are set to zero. Conversely, taxes and transfers paid to non-profit institutions and other households are retained as negative values. Then, market and disposable incomes are calculated. The ranking of individuals is done on the basis of these new values of disposable income. Finally, mean of market income and disposable income are then computed (over all incomes e.g. zero and positive incomes).

Definition of poverty

Income poverty in the OECD database is defined according to the so-called economic distance approach, namely as a fraction of median income. The choice for one specific percentage level rather than another is arbitrary but for the overall poverty rate and poverty gap, three thresholds (40%, 50% and 60% of the median) are reported. For the detailed poverty indicators (by age and household type), the main income poverty threshold used in the OECD framework is 50% of median equivalised household disposable income.

Income poverty estimates are thus reported on a “relative” basis, i.e. with regard to the median income of each country and in each year. In addition, the OECD questionnaire also includes a more “absolute” poverty measure. In particular, income poverty rates are calculated based on a threshold fixed (“anchored”) at half of median income in the mid-1990s, and in the mid-2000s.²⁰ Furthermore, the real value of poverty thresholds expressed in purchasing power parities for actual consumption is presented.

The OECD reports two indicators to measure poverty; first, the headcount ratio, calculated as the number of individuals in the group considered with disposable household income per equivalent member below the poverty threshold, as a percentage of the total number of individuals in the group considered. Second, the mean poverty gap ratio (income gap expressed as a per cent of the poverty threshold), calculated as the difference between the poverty threshold and the mean disposable income of the poor, expressed as a percentage of the poverty threshold.

Reporting period

The OECD income data are calculated on annual basis, rather than using weekly or monthly income. One reason for adopting the year as the accounting period is that comparisons can readily be made with total income figures in National Accounts. However, in some countries, the statistical assessment is shorter (often monthly and sometimes weekly income, transferred into annual values). This is not a trivial question: it can be expected that the fluctuation among monthly incomes is higher which would lead to an over-estimation of income inequality, hence relative income poverty.²¹

20. The European Union set of social inclusion indicators includes a similar measure, namely the at-risk-of-poverty rate “anchored” in year t-3 and uprated by inflation over the following three years.

21. Some evidence exists for China: Gibson et al. (2001) analyse 1992 microdata for two urban areas in Hebei and Sichuan to demonstrate that the percentile ratio would be 1.17 times higher, and the Gini coefficient 1.23 times higher when measured for a monthly, rather than annual reference period.

Updating

The growing social and political interest on income inequality, and the dramatic effects of the economic crisis on the living standards of individuals in many OECD countries, led to the need of monitoring income distribution developments more frequently. As a result, since 2012 the OECD IDD updates and publishes data on income distribution and poverty on an annual basis and since December 2017 about three times a year.

A review of the quality of income distribution data for selected partners and accession countries

In order to preserve cross-country comparability, data from OECD accession and emerging economies' countries should ideally be harmonised using the same conventions and definitions described above. This is unfortunately not always possible: the efforts undertaken so far have allowed including in the OECD IDD estimates for China, Costa Rica, India and South Africa, but not (yet) for Colombia, Costa Rica and Indonesia. In addition, even for the emerging and accession countries that have now been included in the OECD IDD, comparability is only partial, as statistical practices may significantly differ from those that are conventionally used in OECD countries, in particular with respect to item non-responses.

The analysis conducted in this document focuses mainly on income inequality data available through household surveys. Income inequality can also rely on different sources, as for example in the World Inequality Database (WID), where survey data, fiscal data and national accounts data are combined. When available, information from the WID is presented below for selected inequality indicators. It should be born in mind, however, that estimates drawn from the WID differ from those computed by the OECD based on micro-data from household surveys in a number of respects, including differences in the underlying income concept (i.e. pre-tax vs. disposable income), in the population of reference (i.e. adults vs total population), and the assumptions made about household economies of scale (i.e. per capita vs equivalised measures).

Box A B.1. Readers' guide

For all figures in this Annex, the same naming convention is used: XXX_YYY_ZZZ, where:

- XXX refers to the name of the source from which data are derived;
- YYY refers to the institution/organisation that serves as intermediary (or repository) between data producers and users. YYY often to institutions (e.g. LIS) harmonizing the original national data to enable cross-national comparisons. When there are no intermediaries, the acronym NAT is used;
- ZZZ refers to the institution/organisation that analyses and publishes the data. If the data are published by a national source, the acronym NAT (i.e. National) is used

Departures from this label convention (e.g. when additional details are needed to identify the series) are included in brackets next to the survey name (XXX). For example the series "PNAD (extreme poverty below USD 1.9/day) _NAT_SEDLAC" refers to extreme poverty rates as defined by the share of the people living below 1.90 USD per day in 2011

PPP calculated on the Brazilian PNAD survey (run by the Brazilian National Statistical Office IBGE) as released by SEDLAC.

Brazil

Available data sources used for reporting on income inequality and poverty

OECD reporting

OECD estimates of income inequality and poverty for Brazil are sourced from the household survey Pesquisa Nacional por Amostra de Domicílios (PNAD) conducted by the national statistical office (Instituto Brasileiro de Geografia y Estadísticas, IBGE), as available in LIS for the years 2006, 2009/2011 and 2013. While PNAD asks respondents about their income gross of any taxes paid (with no information separately reported on the total amount of taxes paid), the micro-data available through LIS are based on the Brazilian micro-simulation model (BRAHMS) applied to the original PNAD records to estimate the amount of taxes paid.

Table A B.1. Characteristics of the PNAD dataset, Brazil

| | |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | National Household Sample Survey / Pesquisa Nacional por Amostra de Domicílios - PNAD |
| Responsible institution | Brazilian Geographical and Statistical Institute / Instituto Brasileiro de Geografia e Estatística (IBGE) |
| Coverage | Population living in dwelling units (private dwellings and housing units in collective ones). Since 2004, the survey covers all areas of Brazil, including the rural areas of the North Region which were not previously included in the survey. |
| Sampling | Three stages probabilistic sampling: municipalities (primary units), census-based groups (secondary units), and dwellings (tertiary units). |
| Sample size | PNAD's sample in 2012 consisted of 147 203 households, with 362 451 individuals. |
| Non-response error | 2.7% of households in occupied sampled dwellings were not interviewed. |
| Year to which income refers | 1976-2016 |
| Break in the series | The survey was not carried out in 1970, 1980, 1991 and 2000 (census years) and 1994. |
| Household | In the survey, three units are identified: a dwelling (place of residence structurally separate and independent, consisting of one or more rooms; a household or dwelling unit (a private dwelling for accommodation of one person or a group of persons related by kinship, domestic service or cohabitation norms, or one accommodation unit in a collective dwelling; members are defined as persons who use the dwelling as their usual residence, and on the date of interview were present or temporarily absent for a period not longer than 12 months); a family (a group of persons linked by relationship, domestic dependence or cohabitation norms living in the same dwelling unit as well as people who live on their own in a dwelling unit). |
| Period over which income is assessed | Monthly |
| Income definition | Income amounts were collected gross of taxes and contributions. Does not include imputed rents |

Reporting by national and international sources

In addition to the decennial population census (the last in 2010), two main sources provide information of income-poverty and (per capita) income distribution: PNAD and *Pesquisa Mensal d'Emprego* (PME). While the PNAD covers different sources of household income, PME covers only (personal) earnings in the six main metropolitan areas. Due to its monthly periodicity, PME provides a more up-to-date but less detailed picture than PNAD. National

reporting of inequality statistics is generally based on PNAD: both IBGE and IPEA (Instituto de Pesquisa Econômica Aplicada) use PNAD annual data from 1976 for reporting on inequality.

PNAD was revised in 1992, based on a simpler definition of employment and the introduction of new question on migration. This revision prevents comparisons with data for earlier years; in addition, PNAD data for 1994 and 2000 are either not comparable or unpublished. Household income is measured as the sum of incomes earned by all families living in the same household; family income is the sum of the income streams earned by each family member (excluding lodgers, domestic employees and their relatives). Before 1992, the survey did not collect information on the relation among family members: as a result, if two lodgers constituted a separate family in the same household, their incomes were included in household income; since 1992, if the second family is exclusively constituted of lodgers (or domestic employees and their relatives), their incomes are excluded from household income. On the other hand, if the second family is constituted by relatives or friends of the reference person (“agredados”), their income is included in household income.

Although there are a number of caveats about the precision with which rural and informal sector incomes are captured through the PNAD questionnaire, recent comparisons between PNAD income and consumption expenditure data with information from other surveys suggest that the income distribution from the PNAD are valid. However, PNAD questions for income sources other than earnings are insufficiently disaggregated and detailed.²²

PNAD-data are used for computing estimates of income and poverty by CEPAL, SEDLAC and The World Bank PovCalNet database (<http://data.worldbank.org/country/brazil>).

Comparison of key indicators from OECD reporting and alternative sources

Gini coefficients

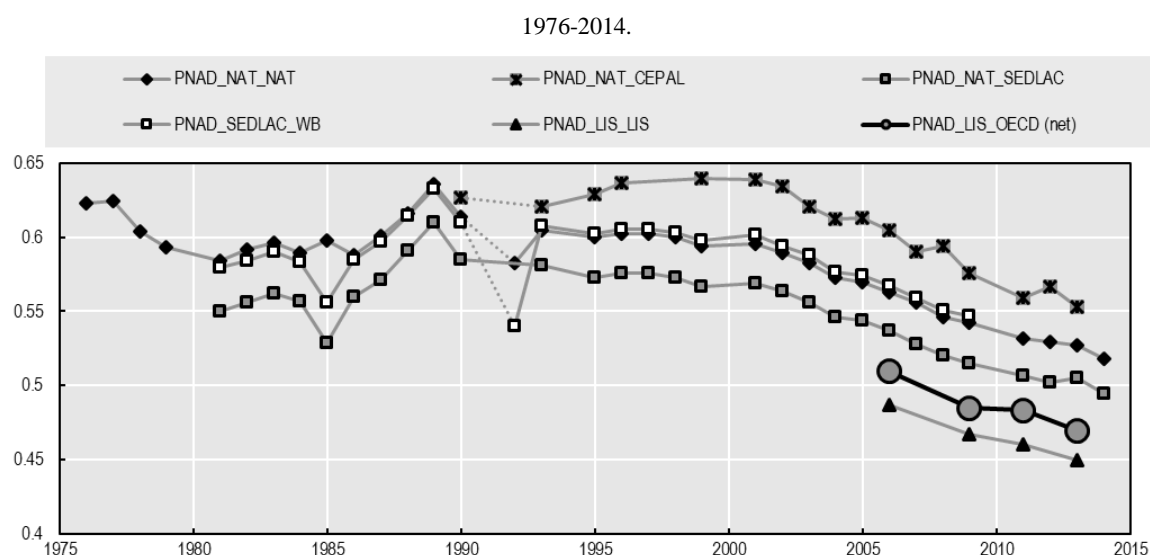
All data sources indicate a decline of the Gini coefficient in Brazil since 1998/99, particularly since the mid-2000s (Figure A B.3). Longer-term data from IPEA show that income inequality fluctuated in the early 1980s, increased in 1987 and fell in 1990; then, following a period of stability in the mid-1990s, inequality started to decline in the late 1990s. The main difference between sources is that the decline in the mid-1980s shown by the World Bank and SEDLAC is not present in the IPEA series.

In terms of levels, CEPAL reports significantly higher income inequality than other sources. The Gini coefficient reported by CEPAL is 17% higher (7 points) than the OECD estimate (based on net income) and 5% (around 3 points) higher than the IPEA estimate. This reflects CEPAL’s imputation of missing data and correction of data for underreporting relative to National Accounts totals. In addition, the Gini reported by CEPAL and the World Bank is based on per capita income, which tends to lead to higher Gini compared to measures based on equivalised income. The Gini coefficient reported by SEDLAC, based on equivalised amounts, is 5% higher than the OECD estimate based on net income and 10% higher when the LIS methodology is used. The lower levels reported by LIS reflect the exclusion of zero incomes.

22. For example, the PNAD questionnaire asks only one question (namely, what was your net income in the previous month) to self-employed people in the informal sector (e.g. a small farmer in rural areas), Source: <http://unstats.un.org/unsd/methods/poverty/RioWS-poverty-in-Brazil.pdf>.

Pre-tax Gini estimates from the WID (not shown in Figure A B.3) also indicates a decline from the early 2000s, with the lowest level attained in 2014 (0.616), followed by an increase in 2015 (0.625).

Figure A B.3. Trends in Gini coefficient in Brazil



Note: Data sourced through SEDLAC refer to cash income only.

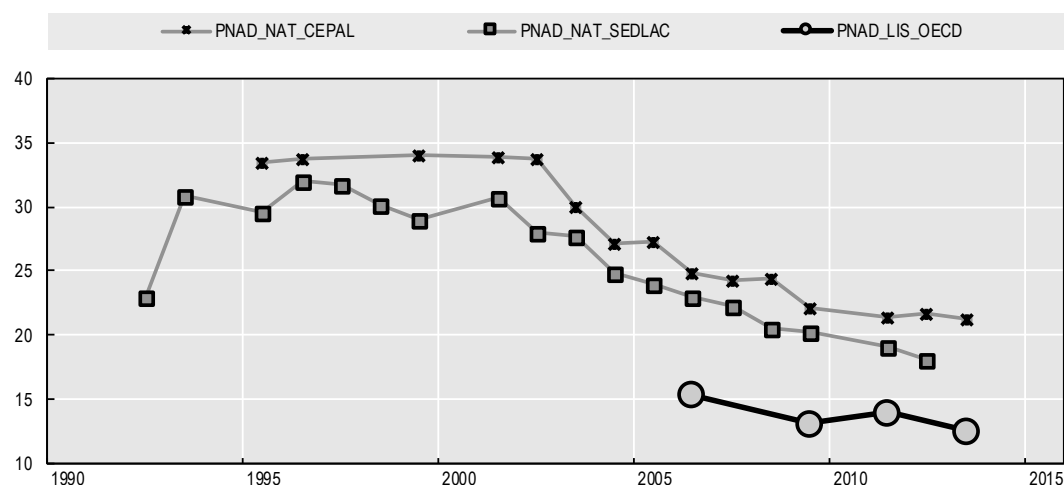
Income quintiles

Income inequality in Brazil has also been declining since the mid-late 1990s when considering the quintile share ratio (S80/S20) available from both SEDLAC and CEPAL, although with some differences in specific years (Figure A B.4). Both sources show a large decline in the S80/S20 ratio between 1995 and 2012/13 – from a level of 29.5 (33.5 in the case of CEPAL) to 18 in 2012 (21.3 for CEPAL in 2013). The shorter series available from OECD estimates shows a decline between 2006 and 2009, an increase in 2011 and a new decline in 2013. Conversely, SEDLAC data suggest a uniform decline over the same period, while CEPAL data indicate a rebound in 2012.

Levels of the S80/S20 ratio in the most recent period are similar in the OECD, SEDLAC, and CEPAL estimates, with lower OECD estimates in 2006 (4.7, compared to 5.5 and 5.3 for SEDLAC and CEPAL respectively) and 2009.

Figure A B.4. Trends in income quintile ratio in Brazil

1991-2013.



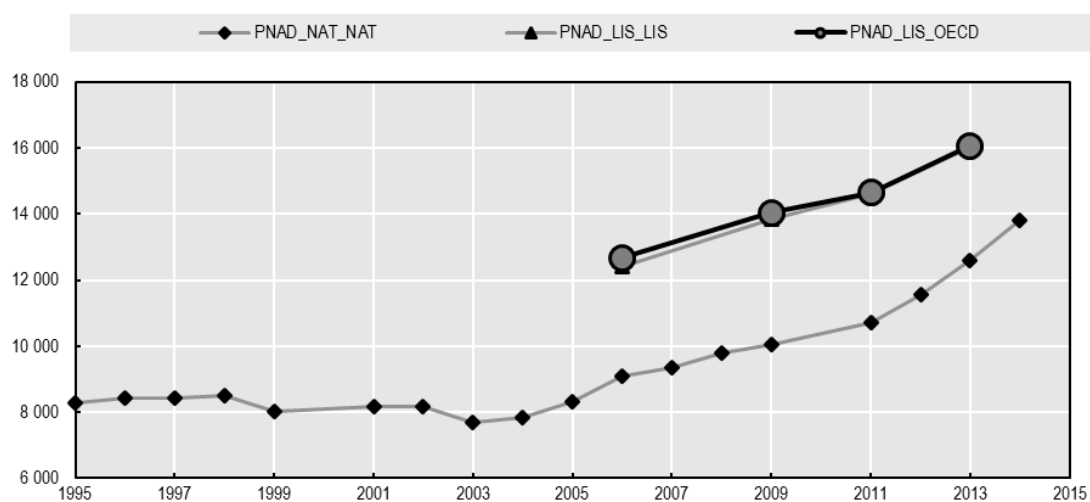
Source: OECD calculations are based on data from LIS Data Center.

Mean income

According to all sources, mean household income in real terms increased continuously since the mid-2000s. OECD estimates indicate an increase of 26% between 2006 and 2013, slightly lower than the 30% increase reported by LIS and, to a more significant degree, the 40% reported by IPEA. IPEA statistics covering a longer time period show stagnant mean income between the mid-1990s and mid-2000s, and rises since then. Levels of mean household income differ according to data sources, with IPEA showing a mean income (per capita) which is 30% lower than the (equivalised) income computed by LIS and the OECD.

Figure A B.5. Trends in mean household income in Brazil

National currency, 2010 prices.

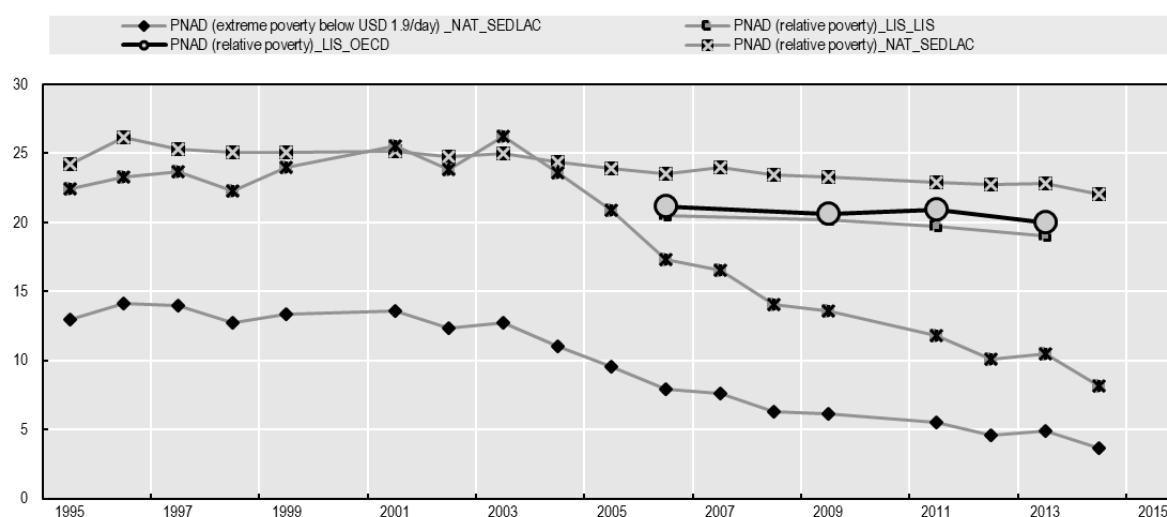


Poverty rates

Figure A B.6 shows changes in the income-poverty headcount based on various sources and definitions. Extreme poverty based on both international thresholds (people living on less than USD 1.90 per day in 2011 PPP, as reported by the World Bank) and national ones (people who cannot afford a basket of goods providing a minimum calorie intake, as reported by IBGE and IPEA) show a marked decline since the early- 2000s, from levels of around 25% and 13%, respectively, to 5% and 8% in 2013. Levels of extreme poverty in Brazil are much lower than in Asian Emerging Economies in Asia and lower than in Colombia but higher than in Costa Rica.

Relative poverty (based on threshold set at 50% of the median) did also decline since the late 2000s, but much less than extreme poverty. Relative poverty as measured by OECD is fairly similar to the indicators published by LIS (20% and 19% respectively) but below the rate reported by SEDLAC, 22% in 2014. The decline (between 1 and 1.5 points) is similar across all sources.

Figure A B.6. Trends in poverty rates in Brazil



Metadata

Main methodological differences across different sources are summarised in Table A B.2.

Table A B.2. Differences among sources, Brazil

| | CEPAL | National source (IPEA) | LIS | SEDLAC | World Bank |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Survey | PNAD | PNAD | PNAD | PNAD | PNAD |
| Year to which income refers | 1990, 1993, 1995-1996, 1999, 2001-2009, 2011-2013 | 1976-2013 | 2006, 2009, 2011, 2013 | 1981-2013 | 1981- 2013 |
| Period over which income is assessed | Yearly | Monthly | Yearly | Monthly | Yearly |
| Equivalence scale | Per capita | | Equivalised income (household income divided by the square root of household size) | Equivalised income (household income by $(A+\alpha_1.K1+\alpha_2.K2)\theta$, where A is the number of adults, K1 the number of children under 5 and K2 the number of children between 6 and 14; In the benchmark case, $\alpha_1=0.5$, $\alpha_2=0.75$ and $\theta=0.9$) | Per capita |
| Treatment of negative, zero income, missing values and extreme values | CEPAL assigns income to households that fail to report income | Negative values includes, missing values set to zero | Missing and zero incomes are bottom-coded at 1% of equivalised mean income and top-coded at 10 times median of non-equivalised income | Exclude negative and zero incomes for income but includes zero income for poverty | |
| Recorded income | Market income | Market income | Disposable income (estimated based on micro-stimulated amounts computed by experts at University of Pernambuco (Centro de pesquisas ageu magalhaes and University of Essex. | Combination of gross and net income (income data net of wage tax but not of other direct taxes; wage taxes are often greater than other direct taxes) | Market income |
| Other data features | | | Some benefits not collected separately (Bolsa Familia, old- age benefit), and some not collected at all (family wage, unemployment benefit, wage bonus, annual bonus for pensioners, 13th month wage, holidays bonus) | Data adjusted to match National Accounts totals | |

Summary evaluation

Overall, all income distribution indicators reviewed here highlight long-term declines in income inequality and poverty. Level-differences between indicators from different sources mainly reflect the adjustments made by CEPAL to the PNAD data, the adjustments made by LIS and OECD for accounting for taxes paid by households, differences between per capita and equivalised income, and the specific income items considered by different institutions.

*China**Available data sources used for reporting on income inequality and poverty**OECD reporting*

Official measures of income inequality in China rely on the *Integrated Household Survey* conducted by the National Bureau of Statistics (NBS). While the welfare concept

(household disposable income) and methodological features of this survey would allow computing indicators comparable to those available for other countries in OECD databases, it has not been possible so far to get access to the micro-records of this source. As a consequence, the estimates of income distribution and poverty for China shown in this paper were computed based on micro-data from the China Family Panel Studies (CFPS), available for the income year 2011. The main characteristics of this survey are presented in Table A B.3 below.

Table A B.3. Characteristics of the CFPS dataset, China

| Name | China Family Panel Studies – CFPS |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Responsible institution | Institute of Social Science Survey (ISSS) of Peking University |
| Coverage | All households living in a residential community and having at least one family member of Chinese nationality. The survey covers 25 provinces/municipalities/autonomous regions in China (excluding Hong Kong, Macao, Taiwan, Xinjiang, Tibet, Qinghai, Inner Mongolia, Ningxia and Hainan) and 94.5% of the Chinese total population. Thus, CPFS can be regarded as a nationally representative sample. |
| Sampling | Three stages probabilistic sampling: municipalities (primary units), census-based groups (secondary units), and dwellings (tertiary units). |
| Sample size | 13 453 households and more than 55 000 individuals in 2012. |
| Non-response error | 2.7% of households in occupied sampled dwellings were not interviewed. |
| Year to which income refers | 2011 |
| Break in the series | Three waves of the survey are available: 2010, 2012 and 2014. However, data from different waves are not fully comparable, due to changes in the concepts and definitions of key variables between waves. Only data collected through the 2012 wave are suitable to compute OECD-type indicators of income distribution and poverty. |
| Household | Households defined as an economically independent dwelling unit with at least one family member of Chinese nationality. Household or family members refer to 1) all immediate relatives who are economically interdependent; 2) all non-immediate relative who are economically related and have been living in the household continuously for at least three months. A key criterion used to identify family relationships is economic rather than residence; people who have left home for school or work but have retained close economic relationship with other members of the household are treated as family members. |
| Period over which income is assessed | Weekly, monthly and annual, depending on the income item. |
| Income definition | All income sources reported net of regular income/enterprise taxes. They include wages, transfers, self-employment income, agricultural income, capital income, and in-kind income |

Reporting by official sources and other international agencies

Until recently, China lacked an official survey providing information on the distribution of household income across the entire territory of the country. Due to the impact of the Chinese urban-rural dual structure, the household surveys conducted by the statistical office (NBS) had traditionally been conducted separately in urban and rural areas. The coexistence of different survey schemes between urban and rural populations has increasingly being recognised as inappropriate for understanding inequalities in China. Due to rapid urbanisation and the large-scale migration of workers from rural to urban areas in China, the coverage of migrant population pose a specific challenge for Chinese household surveys, due to the difficulty of covering this "floating population" and of obtaining good income information.

In the absence of country-wide estimates, researchers relied in the past on different techniques to combine information from NBS surveys referring to the urban and rural population. This approach had however its own limitations, due to the different income

concepts used by the two surveys (“net” income in the rural household survey, disposable income in the urban survey)²³, breaks in the published series, and limited country-coverage.²⁴ The income concept adopted by NBS has also been broadened over time: thus, part of the recorded increase in average income of Chinese households reported in surveys may reflect an improved definition of disposable income.

Since 2013, NBS has been using a new “urban-rural integrated” sampling framework to build a nationwide household survey system to describe changes in urban-rural, interregional, and inter-sector income disparities between different social groups. The implementation of the integrated household survey led to a break in the NBS series, due to the impact of changes in the sample coverage, in the conceptualisation of “urban” and “rural” areas, and in the definition of disposable income.

The NBS Integrated Household Survey is the most comprehensive and accurate source of income inequality and poverty in China. However, published NBS estimates are not suited for OECD comparative reporting. First, national measures of inequality published by NBS are based on the concept of income per capita rather than equivalised income per consumption unit (as is done for OECD countries). Second, NBS does not publish detailed distribution tables at the national level but only summary indicators.²⁵ Finally, NBS does not publish poverty rates for China as a whole. While these problems could be solved by computing OECD-type estimates from the microdata underlying these measures, NBS generally does not make the datasets available to researchers.²⁶

Due to the unavailability of micro-data from the NBS Integrated Household Survey, most studies used alternative, publicly-available non-official sources, such as the China Household Income Project (CHIP), a panel survey carried out as part of a collaborative research project on incomes and inequality in China organised by Chinese and international researchers, with assistance from NBS.²⁷ In 2010, the Institute of Social Science Survey (ISSS) at Peking University launched the China Family Panel Study (CFPS), a nationwide panel survey covering approximately 16 000 households living in 25 province-level units.

23. The main differences between the two income concepts are that payments to social security funds were not deducted from net income; while medical insurance payments were treated as income in the rural survey but as negative expenditure in the urban survey. According to the National Bureau of Statistics (NBS), aligning the income concept for rural areas to the one used for urban one would lower rural disposable income by 5.7% relative to than the definition used in the rural survey. As social security only started to emerge in rural areas in 2005, it is unlikely that the difference was significant prior to that date.

24. While in both cases samples were drawn from the lowest administrative unit (“village committees” and “neighbourhood committees” respectively), not all of China is covered by these committees, implying that combining NBS rural and urban surveys did not yield complete coverage of the population of China.

25. The NBS has recently released current and retrospective estimations of Gini coefficients of per capita household income at the national level based on the official urban and rural household surveys. When estimating the national Gini coefficients, the NBS also used information from personal income tax records to correct downward bias of estimation.

26. In the past, some authors obtained access to NBS microdata (Chen and Ravallion, 2004).

27. Microdata from CHIP 2002 are available on the LIS website, where variable definitions have been harmonised as far as possible in order to facilitate cross-country comparisons of earnings, income and poverty (www.lisdatacenter.org/news-and-events/first-chinese-dataset-in-lis).

The CFPS takes advantage of its panel structure and questionnaire design combining “main” questionnaires (separate for adults and children) and “additional” questionnaires focusing on specific population groups. The second and third waves of the survey were conducted in 2012 and 2014, and microdata are available for public use upon request.²⁸

Both CHIP and CFPS have broad spatial coverage and include rural-urban migrants (since the 2002 wave in the case of CHIP), thus allowing to estimate nationwide income distribution. Both surveys ask questions on detailed income sources, thus allowing for a detailed breakdown of income streams. The CHIP data collection of income components takes advantage of a subsample of the NBS household survey, where information on major income sources is derived from bookkeeping by respondents who are regularly monitored by NBS enumerators, with additional income components collected by supplementary interviews. The CFPS income data are collected by interview only, and most questions are answered in ranges (rather than absolute values) to improve response rates.

Chinese data on income inequality and poverty are also available from the LIS database, based on the 2002 wave of CHIP. The World Bank also publishes nation-wide Gini coefficients (<http://data.worldbank.org/data-catalog/world-development-indicators>) based on the work by Ravallion and Chen (2007) and drawing on the Rural Household Surveys and the Urban Household Surveys conducted by NBS.

Comparison of key indicators from OECD reporting and alternative sources

Gini coefficients

The overall pattern of income inequality in China is one of increases since the 1980s followed by stability since the early 2000s.

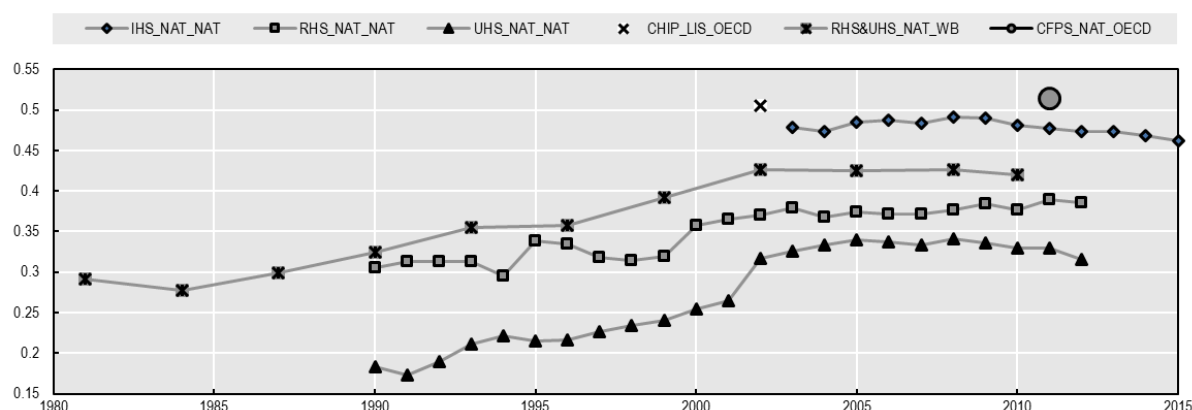
The Gini coefficient in rural areas increased from 0.28 in 1990 to 0.36 in 2000 (Figure A B.7) – an increase of 0.8 percentage points per year during this period – mainly reflecting unbalanced development of the rural non-agricultural sector and township-village enterprises across regions and provinces. Since 2000, the upward trend in income inequality in rural areas slowed down compared to the previous decade, with the Gini coefficient increasing from 0.36 to 0.39 from 2000 to 2012. Since 2012, income inequality in rural areas was broadly stable, as a result of the spread of non-agricultural activities across regions, provinces and counties, of increasing proportion of labourers migrating from less to more prosperous regions and of government policies to raise the income of rural households.

Data from the Urban Household Survey (UHS) show an increase of the Gini coefficient in urban areas from 0.18 in 1990 to 0.32 in 2012 (i.e. around 1 percentage point per year over the last two decades), a steeper rise than the one recorded in rural China. After the Asian financial crisis and with the entry into the WTO, China experienced a significant increase in income inequality in urban areas: from 2000 to 2005, the Gini coefficient of urban household income increased, on average, by 2 percentage points per year. Thereafter, it decreased steadily, tapering off at 0.316 in 2012.

28. Microdata are available upon request at: www.isss.edu.cn/cfps/EN/Data/.

Figure A B.7. Trends in Gini coefficient in China

1981-2015.



The NBS nation-wide Gini coefficient, based on the Integrated Household Survey (IHS) and available since 2003, shows that inequality in per capita incomes peaked in 2008, edging down since then to 0.46 in 2015. This slight fall results from a variety of factors, including faster growth in wages, larger health care reimbursements for people at the lower end of the distribution, and higher transfers from migrant workers in urban areas to their households in the countryside.

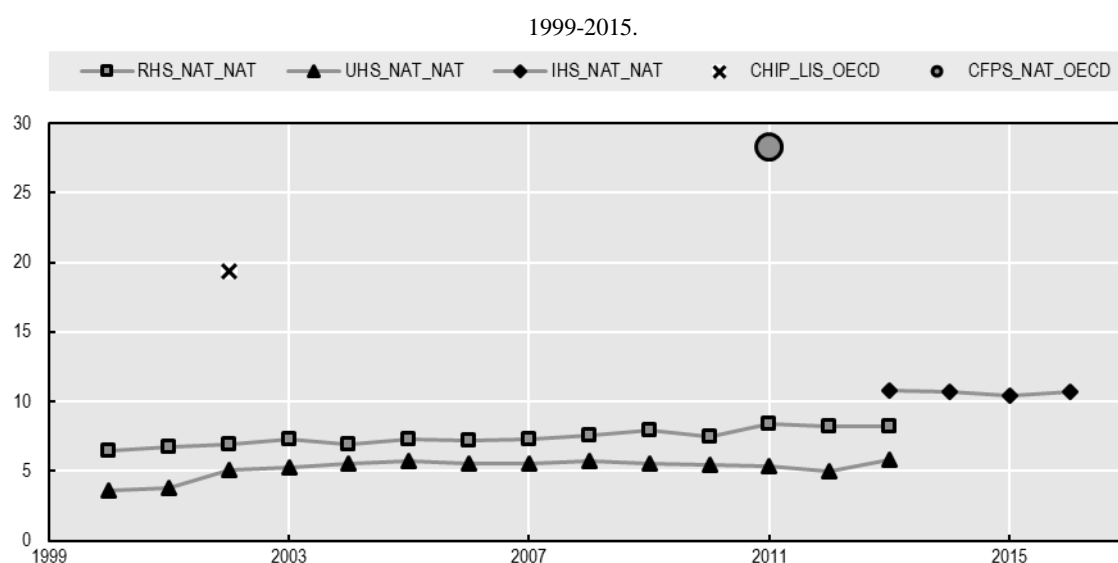
Country-level Gini coefficients estimated by the World Bank are 10% lower than those published by the NBS, although they show a similar trend over time (with the Gini index increasing steadily from the early 1980s to the mid-2000s and then slightly declining after 2008). The Gini coefficient based on CHIP (as available on LIS) was 0.51 in 2001, well above the World Bank's estimate of 0.43. The Gini coefficient estimated by the OECD based on CFPS survey is 0.51 in 2011, only slightly higher than the NBS official estimate (0.48). Differences in levels are likely to reflect differences in the underlying surveys, in the definition of income and equivalence scale used, and other methodological differences.

Pre-tax Gini estimates from the WID (not shown in Figure A B.7) also point to a steady increase in income inequalities, from 0.35 in 1980 to 0.55 in 2015.

Income quintiles

According to official statistics from the Rural Household Survey (RHS), per capita net income of people in the bottom 20% of the distribution in rural areas tripled from 2000 to 2013, while that of the richest 20% increased fourfold (Figure A B.8). As a result, the quintile ratio (i.e. S80/S20) rose by 1.7 points, from 6.5 to 8.2. In urban areas, over the same period, per capita disposable income increased 2.7 times for people in the lowest quintile and four times for those in the top quintile. The income quintile ratio in urban areas rose by 1.3 points (from 3.6 to 4.9). Conversely, the urban-rural gap in quintile ratio fell in the mid-2000s and widened again as of 2011, reflecting the significant increase in income inequality in rural areas and a roughly symmetrical decrease in urban ones.

Figure A B.8. Trends in income quintile ratio in China



Official NBS data show a nation-wide income quintile ratio stable at around 10 from 2013 to 2016. This level (based on per capita income) is lower than those (based on equivalised disposable income) available through LIS (close to 20 in 2001) and computed by the OECD based on CFPS (at 28 in 2011).

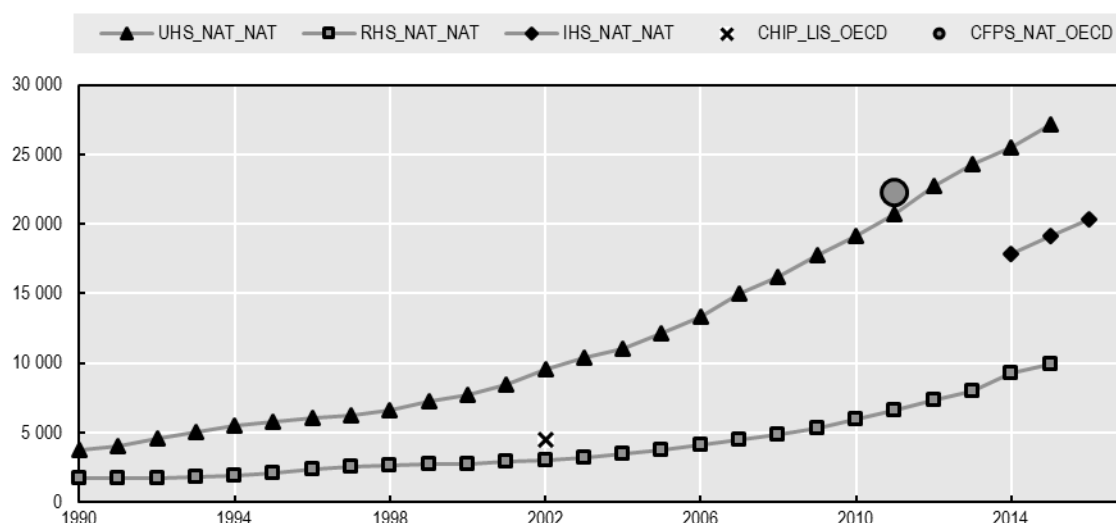
Mean income

NBS data show that, over the past three decades, mean household income has increased strongly both in urban and rural China, with a stronger increase in the former than in the latter (Figure A B.9). China's urban-rural income gap is a central factor underlying national income inequality in recent years.²⁹ By 2002, per capita income for urban households was, on average, more than three times higher than that for rural households. Since then, the urban-rural income ratio (the ratio of average per capita income of urban households to that of rural households) has remained above 3.

29. Urban-rural differences arise in part from China's household registration or hukou system, established during the Maoist era. The hukou system is an internal passport system that was initially adopted in the late 1950s to control domestic population movements, especially from rural to urban areas. For many years, individuals who wished to move their place of residence were required to apply to the relevant bureaucracies for permission, and approvals were tightly controlled. Since the mid-1990s, the hukou system has undergone a series of reforms that have led to a reduction in constraints on geographic mobility and the rapid increase of rural-urban migration. In fact, earnings from migrant work have become an important source of income in rural areas, contributing to rural income growth and moderating the urban-rural income gap. Nevertheless, barriers to permanent relocation (e.g. such as employment discrimination, high housing costs, and low access to public services like education and health care) continue to affect rural migrants. Consequently, most rural-urban migration is temporary or short-term.

Figure A B.9. Trends in mean household income in China

National currency, 2010 prices.



In recent years, changes in the urban-rural income gap have been driven by the very rapid growth in urban incomes. Between 2010 and 2015, while rural incomes increased at an average annual rate of more than 10% in real terms, urban incomes grew by 14%, in constant prices. Part of the gap is explained by differences in rural-urban wages and labour earnings. Labour earnings, however, are only part of the story. The urban-rural income gap also reflects differences in non-wage income, as urban non-employment incomes (e.g. pensions, government transfers, and returns on private assets such as interest income and rents on non-financial assets) have increased rapidly in recent years (NBS, 2016).

Poverty rates

Official poverty data are only published for rural China, which has been the focus of much of China's poverty alleviation efforts. The official poverty line for rural households was set at 200 yuan per person per year in 1978, updated it annually using the rural consumer price index (CPI). By the late 1990s, the share of people with income below this line had fallen below 5%. In 2000, the government introduced a "low income line" of 865 yuan per year per person as an alternative cut-off, also adjusted annually by the rural CPI, which in 2008 replaced the old line for calculating rural poverty. In 2011, the government raised again the official rural poverty line to 2 300 yuan (in 2010 prices). This new poverty line, which was 92% higher than the previous one, was used to calculate the rural poverty rate in 2010; since then, this threshold has been adjusted annually by the rural CPI.

Based on this line, the number of poor in rural China was 122 million in 2011, or 12.7% of the rural population. A large share of the low-income people in China is close to the poverty line, as revealed by the sensitivity of poverty measures to changes in the poverty line. When the government adopted the new poverty line in 2011, the 2010 poverty rate increased from less than 3 to 17%. Estimates of relative income-poverty (below 50% of the median income) based on CHIP data available through LIS show that more than 25% of the Chinese population fell below the poverty line in 2011. Based on CFPS, 29% of the total population had income below 50% of median income in the same year (Figure A B.10).

Figure A B.10. Trends in poverty rates in China

1978-2013.

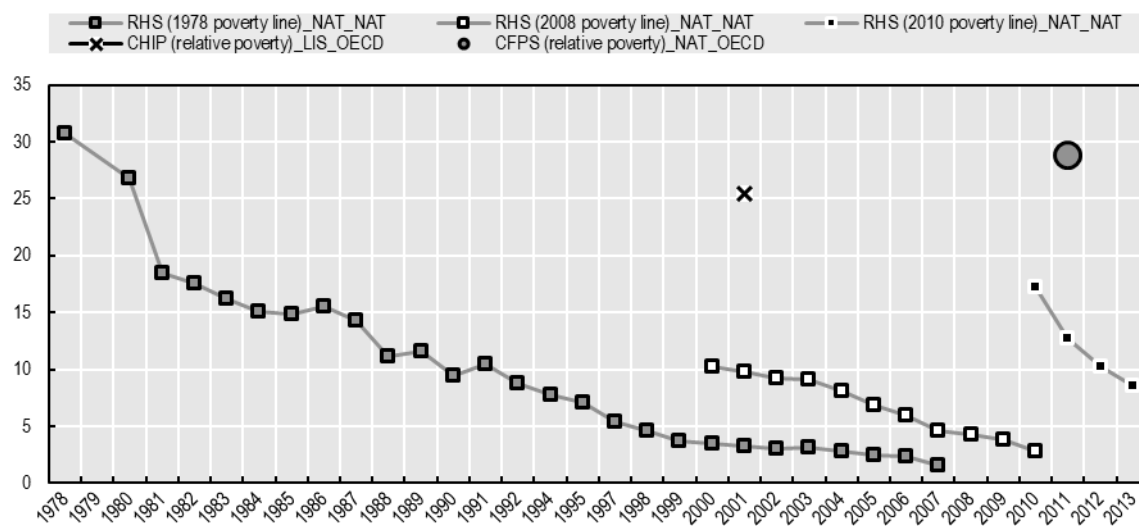
*Metadata*

Table A B.4 summarises some of the main methodological characteristics of different sources.

Table A B.4. Differences among sources, China

| | Institute of Social Science Survey (ISSS) of Peking University | National Bureau of Statistics (NBS) | National Bureau of Statistics (NBS) | National Bureau of Statistics (NBS) | LIS |
|-----------------------------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Survey | China Family Panel Studies (CFPS) | Urban Household Survey (UHS) | Rural Household Survey (RHS) | Integrated Household Survey (HIS) | China Household Income Project (CHIP) |
| Year to which income refers | 2010, 2011, 2012, 2014 | 1955-2012 | 1954-2012 | 2013- | 1988, 1995, 2002, 2007 |
| Period over which income is assessed | Yearly | Yearly | Yearly | Yearly | Yearly |
| Sample size | 55 000 individuals in 2012 | 66 000 households | 74 000 households | Basic: 2 million households; Extensive (i.e. diaries): 160 000 households | 81 109 individuals |
| Equivalence scale | | Per capita | Per capita | Per capita | |
| Data structure | Panel | Rotating sample | Rotating sample | Rotating sample | Cross-sectional |
| Treatment of negative, zero income, missing values and extreme values | CFPS reports raw info from respondents | n.a. | n.a. | n.a. | n.a. |
| Recorded income | Market income, income in kind, imputed income | Market income | Market income | Market income, limited in-kind income, some imputed income (self-consumption) | Market income |
| Data access | Public | Non-public | Non-public | Non-public | Public |
| Other data features | | People in the household and household composition; cash income and expenditure; expenditure on major items; employment of household members; housing conditions; possession of consumer durables. | Basic condition; housing conditions, income, consumption expenditure, consumption of major consumer goods, durable goods owned. | Income and expenditure; employment, social security, housing, family operations, production investment, factors influencing income distribution. | Urban survey: incomes surveyed individually, except for items that cannot be attributed to individuals. Rural survey: data on wages and salaries collected on individual basis, other income items collected at household level. |

Summary evaluation

A full comparison between OECD data based on the China Family Panel Studies (CFPS) and NBS estimates at national level cannot be conducted due to the lack of long time series, the use of different concepts (i.e. per capita vs equivalised income) and differences in definitions in the surveys underlying these measures. Due to the unavailability of microdata from the NBS Integrated Household Survey, estimates for China included in the OECD Income Distribution Database are based on the CFPS, as this source presents several advantages compared to other publicly available Chinese surveys: notably, it collects detailed income data, allows assess recent levels of inequality and poverty, and is nationally representative.

Colombia

Available data sources used for reporting on income inequality and poverty

Income distribution and poverty indicators for Colombia are available from the National Administrative Department of Statistics (DANE) using the Gran Encuesta Integrada de Hogares (GEIH) survey, carried out every year since 2008. The GEIH replaced the Continuous Household Survey (ECH) by integrating three household surveys (ECH, which compiled information the labour market; ECV, for information on living conditions; and ENIG, for income and expenditure). In reality, GEIH incorporated only some modules of ECV and ENIG. The move from ECH to GEIH included a change from a paper questionnaire to an electronic one, a change in geographical coverage (from 13 to 23 areas and more municipalities), and in survey respondent (from people present at the time of the interview, providing information on other members, to direct response by all people those aged 10 and above (12 and above in urban areas)).³⁰

Estimates on income inequality and poverty for Colombia are also available from CEPAL, SEDLAC, LIS database and the World Bank PovCalNet database. All these data repositories rely on the same national survey (GEIH and ECH for previous years). Information of disposable income is not available in GEIH and is simulated by LIS based on information on taxes paid by households. Table A B.5 compares the different national surveys available in Colombia.

OECD estimates for Colombia were provided by DANE based on data from the Gran Encuesta Integrada de Hogares (GEIH). GEIH income are reported before personal income taxes but after social contributions. DANE also carries out the Encuesta Calidad de Vida (ECV). ECV does report taxes, it does not account for social contributions, which were considered as expenditure imputed by DANE rather than as mandatory income deductions. The ECV started in 1997 and was conducted in 2003, 2008 (when the survey became bi-annual); since 2010 ECV is conducted on an annual basis.

30. The sampling frame of GEIH was also revised in 2009 and 2011 to reflect the 2005 census and population projections, in order to better sample the working population and better reflect its demographic characteristics. According to DANE, this revision affected the comparability of poverty measures but not of those on income inequality www.dane.gov.co/files/noticias/Metodologia_pobreza_dane_DNP.pdf

Table A B.5. Different national surveys available in Colombia

| | Continuous Household Survey (ECH) | Gran Encuesta Integrada de Hogares (GEIH) | Encuesta Calidad de Vida (ECV) |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Responsible institution | National Administrative Department of Statistics (DANE) | National Administrative Department of Statistics (DANE) | National Administrative Department of Statistics (DANE) |
| Coverage | Non-institutional civilian population residing in the 13 major cities and metropolitan areas | Non-institutional civilian population residing in the 23 major cities and metropolitan areas | Non-institutional civilian population resident throughout the national territory, excluding the rural part of the new departments. |
| Sampling | Probabilistic, stratified, with unequal clustering, multi-staged and self-weighted, based on the Population and Housing National Census of 1993, with continuous updates | Two-stage stratification sampling, from the cartographic inventory and registry obtained from the Master Sample of Households, with ongoing updates for new dwellings and buildings. | Two stages probabilistic sampling: census-based groups (primary units), and dwellings (secondary units). |
| Sample size (households) | Monthly: 13 500 households; annual: 162 000 | Monthly: 20 000 households; annual: 271 620 | 1 120 census-based groups and 13 440 dwellings |
| Years survey is available | 2000-2005 | 2007-2015 | 1997, 2003, 2008, yearly since 2010 |
| People interviewed in each household | Interviews conducted with each household member or, if not present, with a relative of the household head | Interviews of people aged 18 or above, and of children aged 10-17 who are working or looking for work | Household members aged 15 and older having information about other members. Household members present at the time of the interview provide their own information. |
| Period over which income is assessed | Monthly for wage, salaries and commissions. Other income streams are reported for the last 12 months. | Monthly amounts for labour and other regular incomes (rental income, pensions and alimony); annual amounts for other incomes | Survey conducted in July. Income received in the previous month |
| Income definition | Gross incomes | Gross incomes, no information on taxes and contributions, social assistance incomes | Gross incomes, taxes |

*Comparison of key indicators from OECD reporting and alternative sources**Gini coefficients*

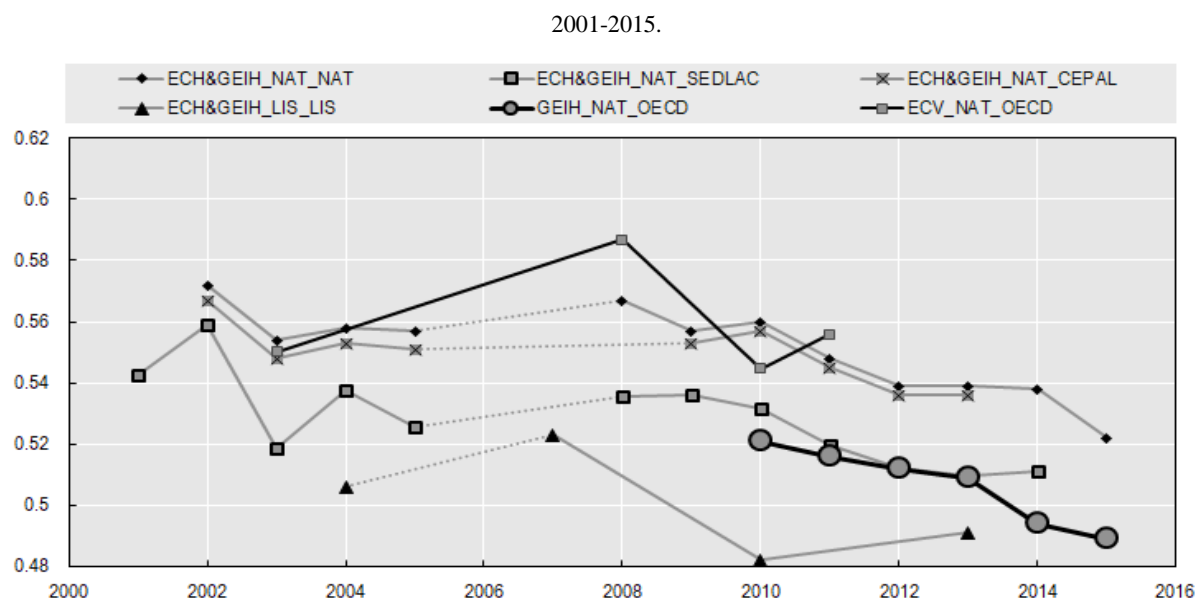
The OECD series of Gini coefficients, computed by DANE based on GEIH, describes a considerable fall in income inequality between 2010 and 2015.

Trends in income inequality based on alternative sources, show a decline in income inequality since the late-2000s, but divergent trends since then depending on the sources used. Overall, Data based on the ECV show a substantial increase in the Gini between 2003 and 2008 (by 4 points). LIS estimates indicate an increase in the Gini in 2013 while statistics by DANE, CEPAL and SEDLAC show stability between 2012 and 2013.

Differences in the inequality levels reported by various institutions reflect differences in the definition of income, the equivalence scale and other methodological issues. DANE estimates are based on income per capita including imputed rent from home ownership. CEPAL adjusts survey data to match totals in the household income account of National Accounts; however, the Gini coefficient reported by CEPAL is not systematically higher than the one available from national statistics, probably reflecting DANE's own adjustment to National Accounts as well as imputations for missing values. Gini estimates from LIS tend to be lower (between 9% and 14%) than those reported by DANE, reflecting exclusion

of zero incomes from the analysis.³¹ Gini estimates based on ECV in 2013 are similar to those available from GEIH, but higher values in previous years (between 2% and 4%, i.e. 1 or 2 Gini points). SEDLAC estimates are 5 or 6% lower (a difference of 3 points) than those reported by DANE.

Figure A B.11. Trends in Gini coefficient in Colombia



Income quintiles

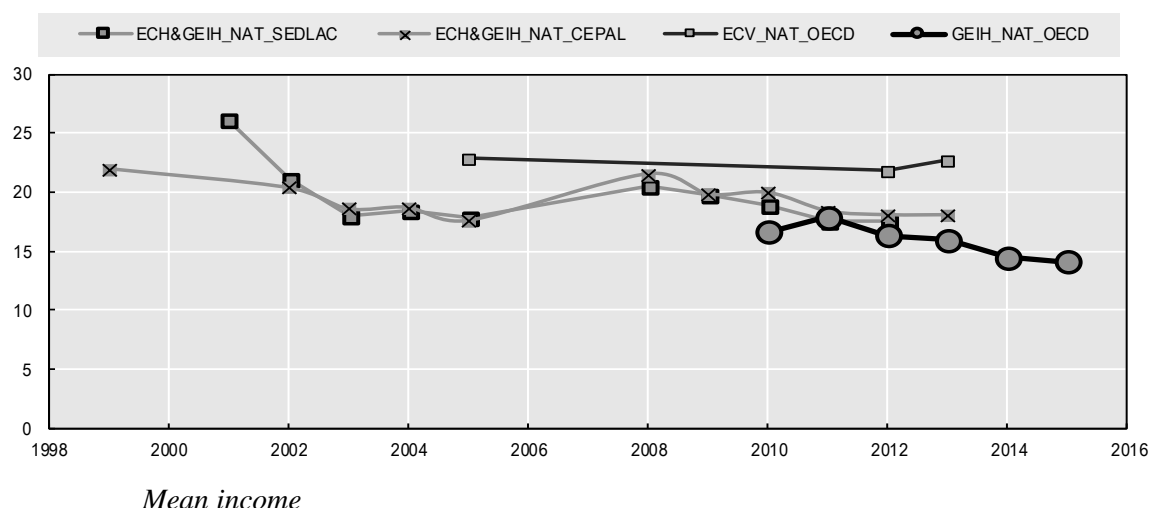
According to DANE estimates for the OECD using data from GEIH, the S80/S20 ratio fell from 17:1 to 14:1 between 2010 and 2015.

SEDLAC and CEPAL estimates report similar levels and trends of the S80/S20 ratio, up to the latest year available 2012 and 2013, respectively. During the early 2000s, the S80/S20 declined until 2004. The S80/S20 ratio grew between 2004 and 2008, followed by decline or stability since then. Estimates based on ECV suggest higher levels and a small increase between 2012 and 2013.

31. In Colombia, a large number of observations with zero income refer to people with missing values rather than true zero income. This applies particularly to respondents who are no longer working, but received some income from labour in the past month, and to respondents reporting the total amount of wage income and social insurance subsidies (food, transport, family, education subsidies) without any information on either of the two separately.

Figure A B.12. Trends in income quintile ratio in Colombia

1999-2015.

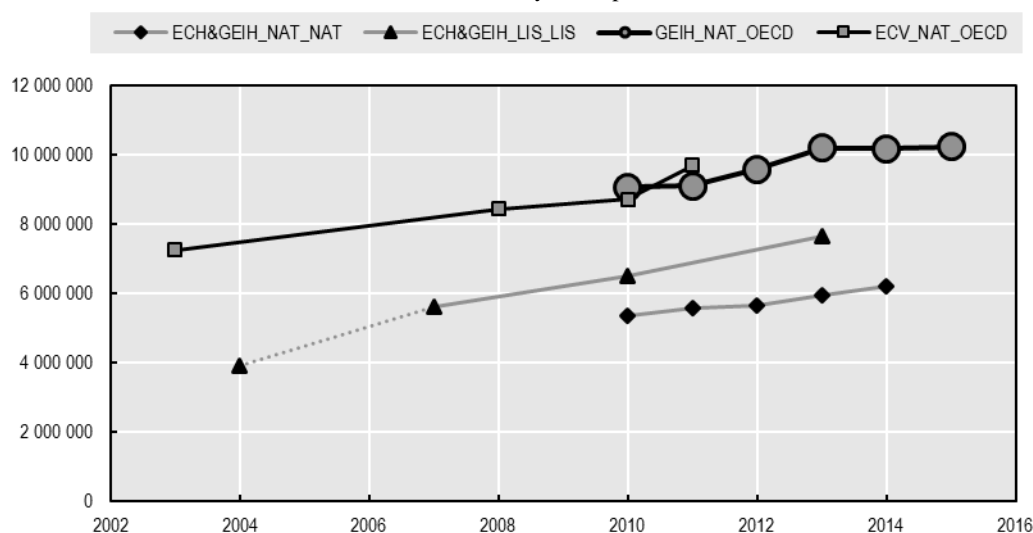
*Mean income*

The OECD series indicates that mean income has increased by 13%, in real terms, between 2010 and 2015.

DANE reports an increase of 16% between 2010 and 2014. Estimates based on the ECV show an increase of 34% between 2003 and 2011. LIS estimates show an almost doubling between 2004 and 2013 (albeit with a methodological change in between).

Figure A B.13. Trends in mean household income in Colombia

National currency, 2010 prices.

*Poverty rates*

Absolute income poverty has fallen considerably over the past decade. Estimates produced by DANE suggest that the incidence of absolute income poverty fell from 47.4% to 28.5% in the decade to 2014. Extreme (absolute) poverty rates also halved whether using the international or the national threshold used by DANE, falling from 15% in 2002 to 6% in

2013 according to the international poverty line, and from 18% in 2002 to below 8% in 2014 using the DANE definition.³²

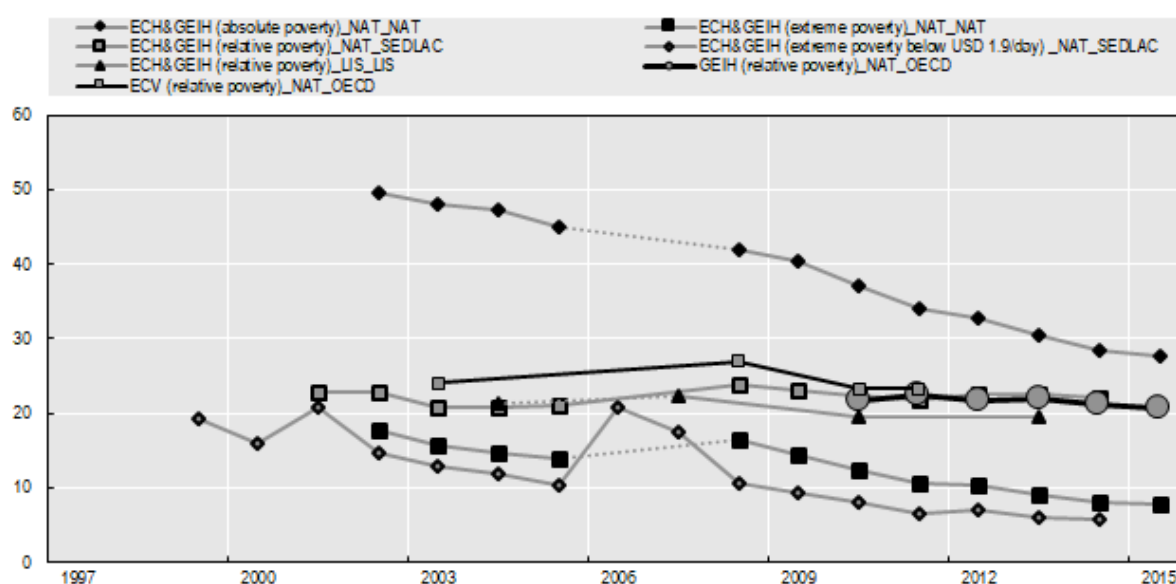
The OECD series indicates that relative poverty³³ has fallen between 2010 and 2015, by 1 percentage point.

According to LIS and ECV data, relative poverty estimates were broadly stable since the early/mid-2000s but declined since 2007/8. A similar pattern is reported by SEDLAC.

In terms of levels, the OECD estimate based on GEIH for 2013 (around 23%) is similar to the one by SEDLAC for 2013 and ECV for 2011.

Figure A B.14. Trends in poverty rates in Colombia

1999-2015.



32. Extreme poverty according to the international definition measures the percentage of the population living below USD 1.90 per day in 2011 PPPs; levels of extreme poverty are higher in Colombia than in other Latin American countries but lower than in Bolivia, Honduras and emerging economies in Asia. An individual is considered “poor” according to DANE if he/she lacks the income required to cover a basic family food basket and other basic needs (e.g. health care expenses, education and clothing), and as “extremely poor” if he/she lacks the income to consume a minimum number of calories. DANE threshold is defined as follows: first, current per capita expenditure is computed, adjusted to account for regional differences in the cost of the family basket; households are then ordered by this measure and an iterative method is applied to select the reference population (percentiles 30 to 59), which defines the basic family consumption basket. The extreme poverty line is obtained following a normative adjustment to the minimum calorific needs; this line is computed based on the price of a basket of food goods using data (Encuesta Nacional de Ingresos y Gastos, ENIG), developed by a group of experts to revise poverty measures in Colombia (Misión para el Empalme de las series de Empleo, Pobreza y Desigualdad, MESEP).

33. Relative poverty is measured as the share of people in households with equivalised household disposable income below 50% of median income in the population.

Metadata

Table A B.6 presents the main characteristics of the different sources.

Table A B.6. Differences among sources, Colombia

| | National Administrative Department of Statistics (DANE) | CEPAL | OECD series prepared by DANE | LIS | SEDLAC |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Survey | ECV | ECH and GEIH | ECH and GEIH | ECH and GEIH | ECH and GEIH |
| Year to which income refers | 2003,2008,2010- 2011 | 2002-2005 (ECH); 2008-2013 (GEIH) | ECH for 2002- 2005, GEIH for 2008-2015 | ECH for 2004. GEIH for 2008, 2010, 2013 | 2001-2005 (ECH); 2008- 2013 (GEIH) |
| Sample size (households) | 25 364 households (2011) | | 231 178 households (2015-16) | 57 356 households (2012) | 57 356 households (2012) |
| Equivalence scale | Per capita | Per capita | Equivalised income (total household income divided by the square root of household size) | Equivalised income (total household divided by the square root of household size) | Equivalised income (total household income divided by $(A+\alpha_1.K1+\alpha_2.K2)\theta$, where A is the number of adults, K1 the number of children under 5 and K2 the number of children between 6 and 14. In the benchmark case $\alpha_1=0.5$, $\alpha_2=0.75$ and $\theta=0.9$ |
| Treatment of negative, zero income, missing values and extreme values | | Income assigned to households that fail to report income | Imputation for negative values, correction for extreme values and false zeroes, imputed rent included. No adjustment to national accounts since 2009 | Missing or zero incomes bottom-coded at 1% of equivalised mean income and top-coded at ten times the median of non- equivalised income | Negative and zero incomes excluded for income, zero income excluded for poverty |
| Breaks in series | | 2006-2007 | 2006-2007 | 2006-2007 | 2006-2007 |

Summary evaluation

Two sources are suitable for analysis of income inequality and poverty in Colombia: ECV and GEIH. GEIH is the data source for official income inequality and poverty estimates in Colombia. ECV is the official source for multidimensional poverty indices. GEIH does not collect data on income tax, however it does collect data on health contributions, which can be used to estimate employees' social security contributions and contributions to occupational pension schemes. Therefore, current OECD estimates for Colombia do not fully comply with the IDD's Terms of Reference. DANE and the OECD are discussing possibilities to impute the missing income tax information.

Costa Rica

Available data sources used for reporting on income inequality and poverty

OECD reporting

OECD income distribution and poverty indicators for Costa Rica have been provided by the Instituto Nacional de Estadística y de Censo (INEC) using the household survey Encuesta Nacional de Hogares (ENAHO) for the years 2010 to 2017.

National reporting and reporting by other international agencies

Annual household surveys used to measure inequality have been carried out by the Costa Rican statistical office (INEC) since 1976. From 1976 to 1986, INEC carried out the Encuesta Nacional de Hogares, Empleo y Desempleo (ENHED) on a quarterly basis (in March, July and November). The ENHED included only salaries and wages. In 1987, a methodological change took place and the survey was renamed Encuesta de Hogares de Propósitos Múltiples (EHPM); in 2010 another methodological change gave rise to the Encuesta Nacional de Hogares (ENAHO). The EHPM used a sample based on the 1984 census and included additional sources of income such as capital income and transfers. The EHPM changed its sample and weights in 2000, impairing over-time comparability. In addition, data from the 2001–09 waves are not comparable with those from the years 2010–12, due to a number of changes in the sampling frame and the method used for measuring incomes. The ENAHO includes in-kind income, imputes non-response and adjusts for under-reporting using National Accounts.

INEC carries out another survey used to measure expenditures, income and poverty, the Encuesta Nacional de Ingresos y Gastos de los Hogares (ENIGH), which is carried out less frequently (in 1987/88, in 2004/5 and 2012/13). Previous waves did not have national coverage (1949, 1961 and 1974). The ENIGH has a more detailed coverage of income sources.

Estimates on income inequality and poverty for Costa Rica are also computed by CEPAL, SEDLAC, and available in the World Bank PovCalNet database. The World Bank estimates are sourced from ENHED, while all other sources are based on EHPM and ENAHO. Table A B.7 compares the different surveys.

Table A B.7. Characteristics of the ENAHO and alternative datasets, Costa Rica

| | Encuesta Nacional de Hogares, Empleo y Desempleo (ENHED) | Encuesta de Hogares de Propósitos Múltiples (EHPM) | Encuesta Nacional de Hogares (ENAHO) | Encuesta Nacional de Ingresos y Gastos de los Hogares (ENIGH) |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Responsible institution | Costa Rican Statistical Office (INEC) | Costa Rican Statistical Office (INEC) | Costa Rican Statistical Office (INEC) | Costa Rican Statistical Office (INEC) |
| Coverage | Nationally representative, covering both urban and rural areas. Uses the 1973 Census as a reference | Nationally representative, covering both urban and rural areas. Uses the 1984 Census as a reference | Nationally representative, covering both urban and rural area. Uses the 2000 Census as a reference | Nationally representative, covering both urban and rural areas. Uses the 2000 Census as a reference |
| Sampling | Two stages probabilistic sampling: census-based groups (primary units), and dwellings (secondary units). | Two stages probabilistic sampling: census-based groups (primary units), and dwellings (secondary units). | Two stages probabilistic sampling: census-based groups (primary units), and dwellings (secondary units). | Two stages probabilistic sampling: census-based groups (primary units), and dwellings (secondary units). |
| Sample size (households) | | 726 census-based groups and 10 890 dwellings, around 40 000 individuals | 1 120 census-based groups and 13 440 dwellings | 5 705 households |
| Response rate (in most recent year) | | Between 94.3% and 97.6% | 83,3% in 2017 | 83% |
| Year to which income refers | 1976-1985 | 1987-2009 | 2010-2017 | 1987/88, 2004/05, 2012/13 |
| Break in series | | Sample weights after the Census 2000 generate some comparability problems. 1989-2001: without implicit rent; 2001-2009: with implicit rent. | | |
| People interviewed in each household | Household members older than 15 and having information about other members. Household members present at the time of the interview provide their own information | Household members older than 15 and having information about other members. Household members present at the time of the interview provide their own information | Household members older than 15 and having information about other members. Household members present at the time of the interview provide their own information | |
| Period over which income is assessed | Survey conducted in March, July and November. Income period varies, from previous week for employees to previous month for other income | Survey conducted in July. Income period varies, left to the interviewee | Survey conducted in July. Income refers to the previous month | Past 6 months for 2004 and past 12 months for 2013 |
| Income definition | Incomes from work (excluding in-kind, bonuses or 13 th month); self-employment incomes included since 1980. | Income from work (including in-kind), self-employment incomes, and transfers. From 1991, includes also a rough measure of capital income | Regular earnings from work (salaries), including bonuses, occasional earnings and earnings from second jobs, self-employment income (both formal and informal), income in kind and services, employment-related social security benefits and allowances. Income net of social security contributions and taxes. | All income from work, capital, property rent, transfers, including income from seasonal or temporary work, from agricultural work and irregular work (e.g. construction) |
| Other data features | | Since 1995 individuals aged 5-17 counts as child workers. Adjusts for under-reporting on income based on a fixed percentage for rural and urban areas | Missing income imputed through conditional mean method (conditioning variables are area, sex, level of education, occupation) | |

*Comparison of key indicators from OECD reporting and alternative sources**Gini coefficients*

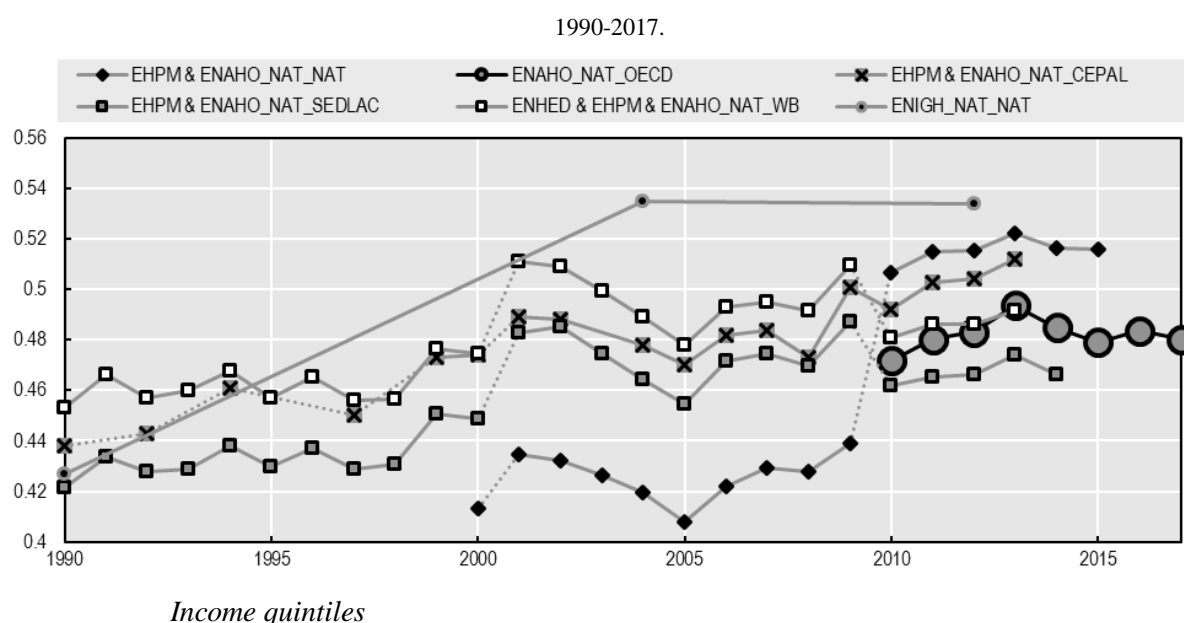
All data series for Costa Rica shows an increase in inequality over time, even though a number of methodological changes prevent long-term comparisons and suggest that the increase in each comparable period has been moderate. In the late 1990s, all sources point to an increase of around 5% to 7%, or 2 to 3 Gini points. From 2001 to 2009, the Gini coefficient was stable (using the EHPM). From 2013 and 2015, all sources, except SEDLAC, show an increase of income inequality between 2010 and 2013, followed by declines between 2013 and 2015 (using the ENAHO).

When considering other surveys from INEC, ENIGH confirm this increase in inequality but with a somewhat different timing. Several articles based on ENIGH data show a large increase in inequality between 1988 and 2004 (INEC, 2006; Loria and Umaña, 2015), although INEC indicates that the ENIGH-based Gini coefficient using per capita household gross income was stable between 2004 and 2013. ENIGH collects income information that is comparable over time, contrary to other national surveys; at the same time, it collects information on income from seasonal, irregular and temporary work, which is less likely to be reported accurately by ENAHO and EHPM.

All annual sources show that the trend in the Gini coefficient is not uniform over time, with large variations from one year to the next. For instance, the decline in the Gini coefficient between 2001 and 2005 is more than offset by a larger increase in the subsequent years, leading to an overall increase in the 2000s. Between 2006 and 2009, as well as between 2010 and 2015, increases in the Gini coefficient are followed by short periods of declines or stability.

Different data sources also point to large differences in the levels of inequality in the period previous to 2010. Between 2000 and 2009, the Gini coefficient by INEC is much lower than by other institutions. This may be because the survey did not provide a comprehensive account of some income sources (e.g. capital income). Until 2009, national statistics report a Gini 13% to 15% lower than those reported by the CEPAL and the World Bank (around 6 points of Gini), and 8 to 10% lower than SEDLAC (around 3 points of Gini). After 2010, the opposite pattern is observed, with Gini levels reported by INEC are higher than those by SEDLAC (2 to 5 points of Gini) and CEPAL (around 1 point of Gini). Gini coefficients reported by CEPAL tend to be higher than SEDLAC's because of the adjustment to national accounts and the use of per capita income instead of the equivalence scale. In 2012, INEC reports levels of the Gini coefficient 7% (around 5 points) higher when based on ENIGH than on ENAHO.

Figure A B.15. Trends in Gini coefficient in Costa Rica



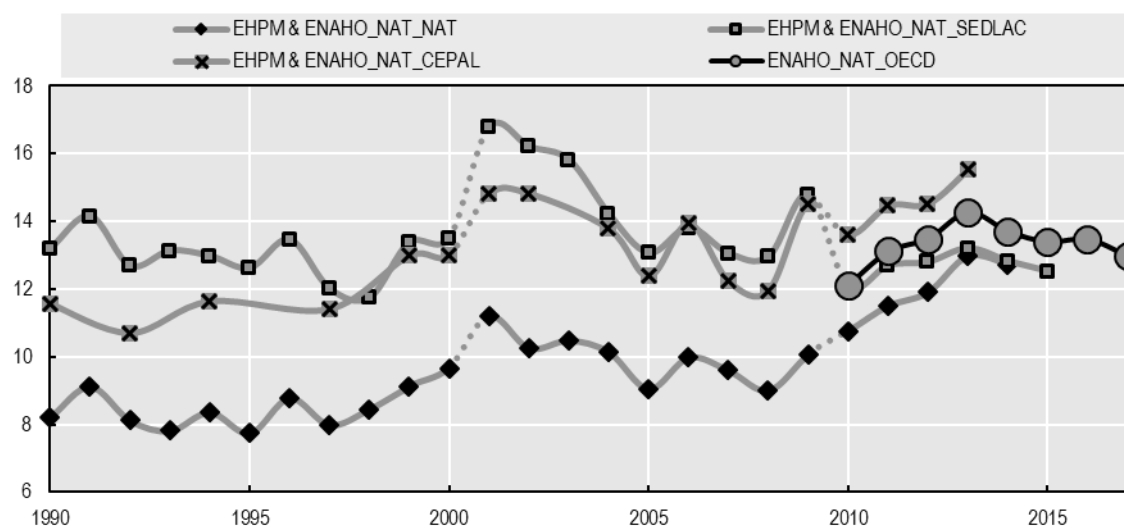
According to all published estimates, the inter-quintile ratio (S80/S20) rose between 2010 and 2013, and fell between 2013 and 2017.

Different sources confirm a relative stability in the 1990s, with an increase in the early 2000s, followed by a decline up to 2008 and an increase until 2013.

INEC estimates show a lower inter-quintile ratio than CEPAL's, although the difference narrows after 2010, when the methodological changes introduced in ENAHO improve data quality. Based on national statistics, the income of the richest 20% was 8 to 10 times higher than the income of the poorest 20% before 2009, rising to 12.7 in 2014. For CEPAL, the ratio was between 10.7 and 14.5 before 2009, and 15.6 in 2013. OECD calculations show an increase between 2010 and 2014, followed by a decline. SEDLAC's quintile share ratio (based on per capita income) is similar to the CEPAL estimates but higher in the early 1990s and early 2000s.

Figure A B.16. Trends in the inter-quintile income ratio in Costa Rica

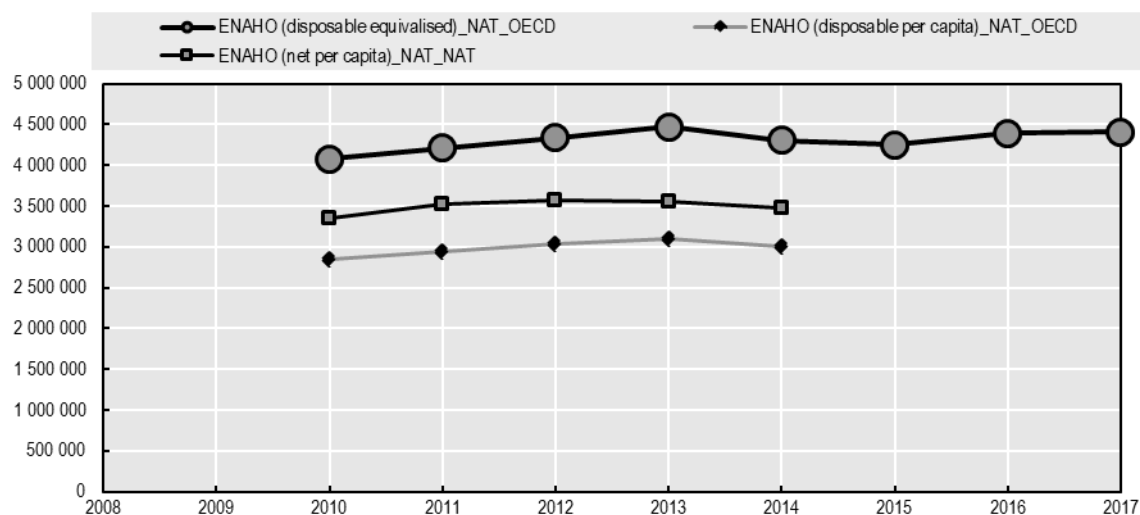
1990-2017.

*Mean income*

Data on mean household income for Costa Rica are only available since 2010, showing a small increase or stability over the past decade. OECD estimates point to an increase of around 8% between 2010 and 2017.

Figure A B.17. Trends in mean household income in Costa Rica

National currency, 2010 prices.



Poverty rates

Measures of absolute poverty for Costa Rica show diverging trends.³⁴ Absolute poverty increased slightly in the mid-2000s followed by a decline, with a poverty rate in 2009 (at 18.5%) similar to the level prevailing in 2003. Since then, absolute poverty has increased, with ups and downs, to a level of 21.7% in 2015.

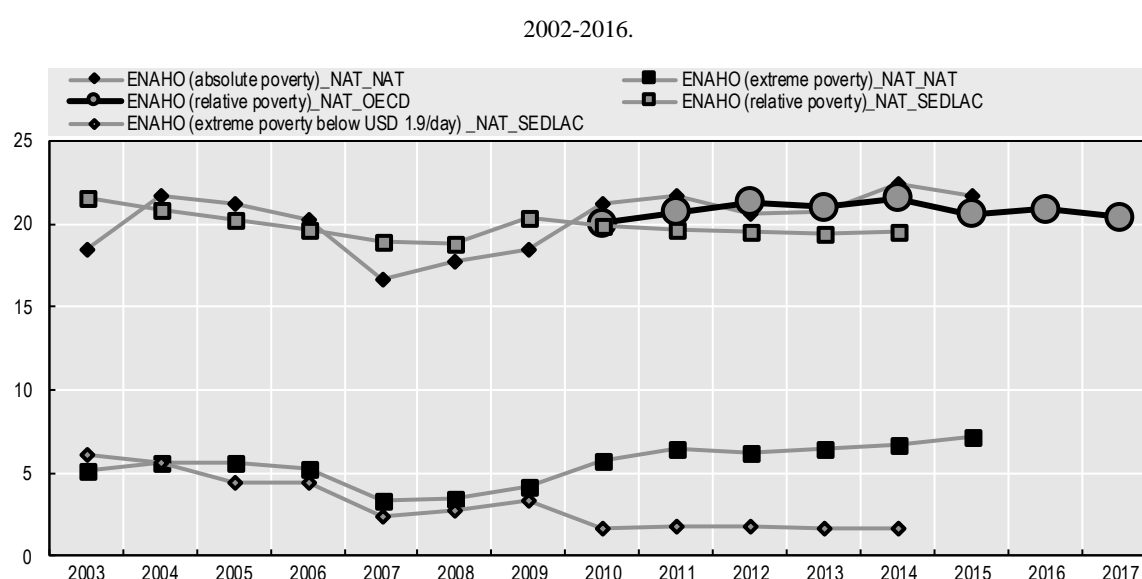
Official extreme poverty is defined by the national government as the population having per capita income equal or below the per capita cost of a basic basket. Estimates for 2015 measured extreme poverty at 7%. The official extreme poverty rate fell between 2003 and 2007 and rose between 2007 and 2015.

Using the international poverty line of USD 1.9 a day, extreme poverty fell from 6% in 2003 to 1.7% in 2013, which is one of the lowest rates in Latin America.

Relative poverty was fairly stable, with somewhat different patterns between estimates calculated by the OECD and SEDLAC. OECD estimates indicate a small rise in relative poverty between 2010 and 2014 and a fall between 2014 and 2017. SEDLAC estimates point to a small but steady decline between 2009 and 2014, which is the latest year available.

OECD and SEDLAC levels of relative poverty estimates are similar. In 2014 (the latest common year with available data) relative poverty estimates are 21.5 and 19.5, respectively.

Figure A B.18. Trends in poverty rates in Costa Rica



34. National total poverty rates calculated by INEC are based on the share of the population not being able to afford a basic basket of goods and services based on their income per capita, but who have an income per capita which is still above the per capita cost of the basic basket.

Metadata

Table A B.8 below presents the main characteristics of these different sources in terms of methods.

Table A B.8. Differences among sources, Costa Rica

| | OECD | SEDCLAC | World Bank | Costa Rican Statistical Office (INEC) | CEPAL |
|-----------------------------------------------------------------------|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Survey | ENAHO | EHPM and ENAHO | ENHED, EHPM, ENAHO | EHPM and ENAHO | EHPM and ENAHO |
| Equivalence scale | Square root of household size | Based on both equivalised and per capita income. Equivalised household income obtained by dividing total income by $(A + \alpha_1 K_1 + \alpha_2 K_2)\theta$, where A is the number of adults, K1 the number of children under 5 years of age, and K2 the number of children between 6 and 14. In the benchmark case, $\alpha_1 = 0.5$, $\alpha_2 = 0.75$, and $\theta = 0.9$ | Per capita | No equivalence scale | Per capita |
| Treatment of negative, zero income, missing values and extreme values | Includes zero incomes, sets missing values to zero, adjust for extreme values | Excludes missing values and zero income, does not adjust for extreme values | Adjust for missing values, excludes negative and zero incomes | Adjust for under-reporting as well as missing values and extreme values | Sets negative income to zero, adjust for missing values and does not eliminate extreme values |
| Recorded income | Net monetary income | Gross income; main categories of non-labor income are pensions, capital income and benefits, and transfers | Gross income | Gross income (sum of total gross primary income of all household members, with each income item multiplied by a coefficient to adjust for under-reporting. Includes income from home ownership, cash transfers and non-monetary transfers | Gross income (wages, both money and kind), self-employment income (including the consumption value of home-made products), property income, retirement and other pensions, other transfers received by households |
| Adjust for under-reporting | No | No | No | Yes | Yes |

Summary evaluation

ENAHO is the most appropriate source for annual monitoring of inequality on a regular basis; data are, however, available only from income year 2010.

India

Available data sources used for reporting on income inequality and poverty

Official data on inequality for India are based on the Household consumer expenditure survey (CES) included in the National Sample Survey (NSS) undertaken by the National Sample Survey office (NSSO).³⁵ Measures of consumption-based inequality drawn from the NSSO survey are included in a range of national reports, and are also available from The World Bank PovCalNet database (<http://data.worldbank.org/country/india>).

35. See <http://catalog.ihnsn.org/index.php/catalog/3996/study-description> for more information on frequency of the survey.

The only primary source of information on income inequality is the non-official *India Human Development Survey* (IHDS), conducted by the National Council for Applied Economic Research and the University of Maryland in 2004-05 and 2011-12. OECD indicators on income distribution and poverty for India have been computed using the IHDS micro-records available through LIS, and are included in the OECD IDD. Main characteristics of the IHDS survey are reported in Table A B.9.

The IHDS is designed to collect detailed income data at the household level. Survey participants are asked about over 50 different income items, which are then grouped into eight major income types (agricultural wages, non-agricultural wages, salaries, non-farm business income, net agricultural income, remittances, property and other income, public benefits received); a variable for total household income is also reported. Data are collected through direct interview of the household member most knowledgeable about household matters. The household questionnaire collects information on number and demographic characteristics of household members, sources of income, members personally receiving wages and public transfers, expenditure patterns, and other information pertaining to the household.

Table A B.9. Characteristics of the IHDS dataset, India

| | |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name of survey | India Human Development Survey (IHDS) [http://ihds.info] |
| Responsible institution | Data producers: University of Maryland, College Park, USA (UMD), http://ihds.umd.edu/ and National Council of Applied Economic Research, New Delhi (NCAER), www.ncaer.org/ Data provider (2011): ICPSR www.icpsr.umich.edu/icpsrweb/DSDR/studies/36151 Data provider (2004): ICPSR www.icpsr.umich.edu/icpsrweb/DSDR/studies/22626 |
| Coverage | Persons living in private households, non-institutionalised population. Out of the 35 Indian states, 33 states are covered by IHDS survey (the two remote island states of Andaman & Nicobar and Lakshadweep are not covered). |
| Sampling | Multi-phase random stratified sampling. Primary sampling unit (PSU) is the village or urban centres. |
| Sample size | 41 554 households (2004); 42 152 households (2011) |
| Units non-response | Close to nil in IHDS-II. |
| Year to which income refer | 2004; 2011 |
| Household | People sharing the same kitchen for 6 months or more. Family members (such as husbands or sons) who have been away for more than 6 months are not considered as household members. |
| Period over which income is assessed | Last 12 months preceding the interview. |
| Unit of time | Annual amounts received in the last 12 months. |
| Income definition | Information on wage and salary income is provided by each household member. Other income sources are reported at the household level. For income from farm, animal-care and non-farm business activities, a link to the household member(s) involved in the activity is also available. Similarly, household level public incomes received are linked to the individual(s) receiving them. Reported amounts are based on "take home pay", i.e. net of taxes and contributions. Note though that income tax payments are very small (2011 survey). |

Comparison of key indicators from OECD reporting and alternative sources

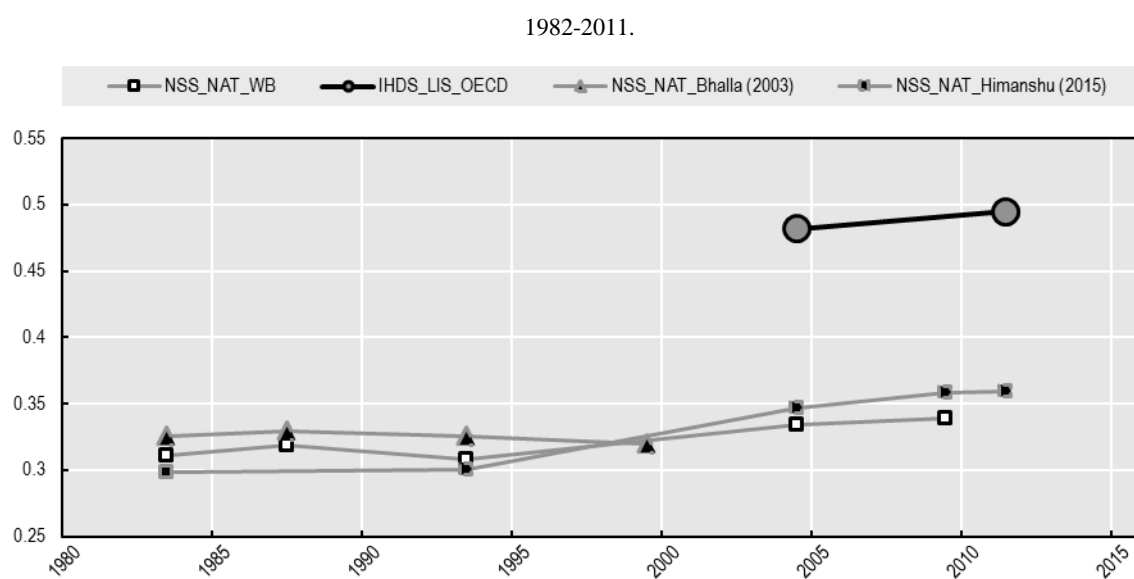
Gini coefficients

The Gini coefficient for India, as computed by the OECD based on IHDS (at around 0.50 in 2011-12), is well above the consumption-inequality measures from official data (NSSO) reported by other sources (at around 0.35), e.g. those included in World Bank databases (Figure A B.19). The value of the Gini coefficient computed for OECD reporting puts India among the high-inequality emerging countries.

Both OECD and official sources indicate a modest increase in the Gini coefficient since 2004. For earlier years, World Bank data show broad stability of the Gini coefficient in the 1980s, and an increase (from around 0.31 to 0.34) since the early 1990s. The broad stability of inequality in the 1980s is confirmed by other estimates based on the NSSO consumption survey (Bhalla, 2003; Himanshu, 2015).

Pre-tax Gini data from WID (not shown in Figure A B.19) suggest steady inequality in the early 1980s (at around 0.40) followed by increases that became stronger in the past 15 years, with inequality reaching a peak of 0.60 in 2014.

Figure A B.19. Trends in Gini coefficient in India

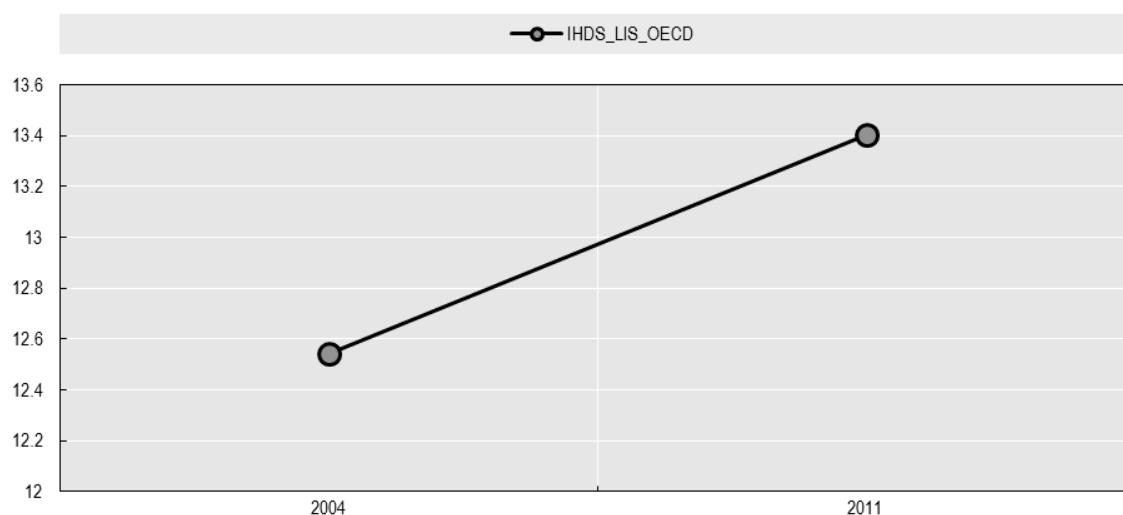


Income quintiles

Other inequality measures also suggest an increase in income inequality. The inter-quintile ratio S80/S20, as computed by the OECD, increased from 12.5 in 2004 to 13.4 in 2011.

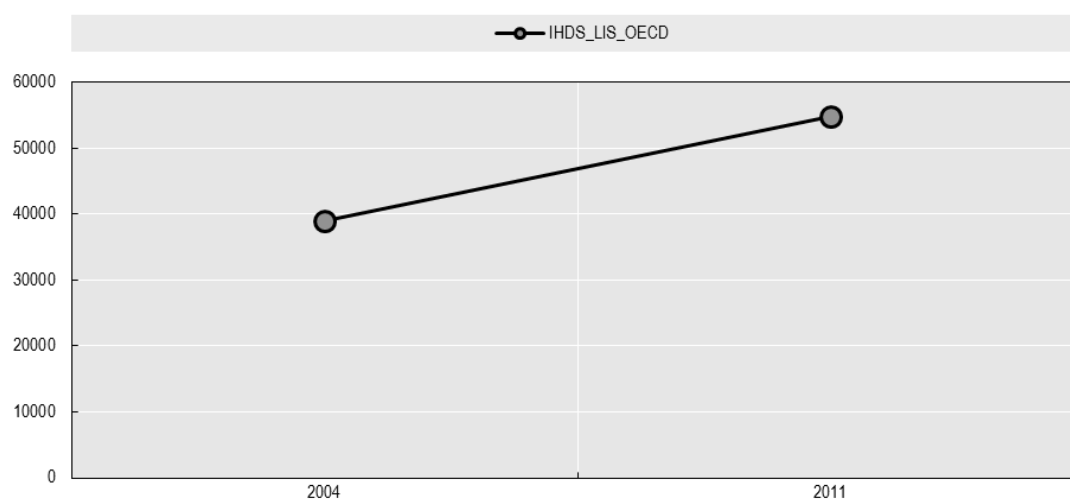
Figure A B.20. Trends in income quintile ratio in India

2004 and 2011.

*Mean income*

Between 2004 and 2011, OECD estimates of mean equivalised household income show a real (CPI-deflated) cumulative increase of 41%, as compared to an increase of 58% in GDP per capita.

Figure A B.21. Trends in mean household income in India

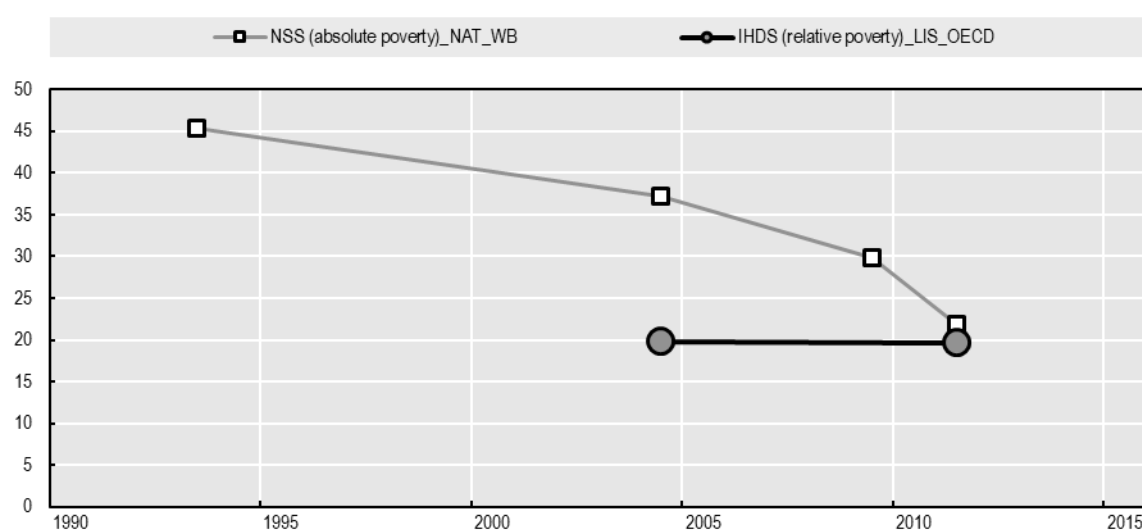


Poverty rates

OECD estimates of relative-income poverty (based on a threshold set at 50% of median income) were stable at around 20% between 2004 and 2011. Conversely, World Bank estimates of (consumption-based) extreme poverty (based on a threshold of USD 1.9 per day, in PPP terms) fell by around 15 points over the same period; by 2011, the World Bank poverty headcount had reached a level that is only marginally higher than the relative-income poverty rate computed by the OECD. Between 1993 and 2004, World Bank estimates of extreme poverty fell by around 8 percentage points.

Figure A B.22. Trends in poverty rates in India

1993-2011.



Metadata

Table A B.10 compares some of the main characteristics of the non-official IHDS survey and the NSSO survey of household consumption conducted every five years. While the NSS has much broader sample size, its welfare metric (per capita household consumption) differs from the one used for OECD reporting (equivalised household income).

Table A B.10. Differences among sources, India

| | OECD | World Bank |
|-----------------------------------------------------------------------|---------------------------------------------------------------|-----------------------|
| Survey | IHDS | NSSO |
| Year to which income refers | 2011-12 (most recent) | 2009-10 (most recent) |
| Period over which income is assessed | 12 months preceding the interview | n.a. |
| Number of households interviewed | Around 42 000 | Around 200,000 |
| Equivalence scale | 0.5 (square root of household size) | 1 (per capita) |
| Treatment of negative, zero income, missing values and extreme values | Negative values set to zero, no imputation for missing values | n.a. |
| Recorded income | Income net of taxes and contributions | Not available |

Summary evaluation

Overall, while the available information does not allow conducting a more detailed comparison between IHDS and the NSSO CES survey, the IHDS is used as the basis for the estimates for India included in the OECD Income Distribution Database as this source is nationally representative, provides detailed income data, and allows monitoring changes in inequality and poverty every 6 years (a frequency that is broadly similar to that of the NSSO (every 5 years)).

Indonesia

Available data sources used for reporting on income inequality and poverty

OECD reporting

Provisional income distribution and poverty indicators for Indonesia were computed by the authors based on the Indonesian Family Life Survey (IFLS) for the years 2000, 2007 and 2014. Total household income is obtained by adding labour income, farm business income, non-farm business income, asset income, some cash transfers and taxes. The IFLS, conducted by the research organisation RAND in 1993, 1997, 2000, 2007 and 2014, provides individual and household level data on economic well-being (consumption, income, and assets) and on a range of other aspects. It has, however, only a limited coverage, with around 80% of the Indonesian population living in 13 of the 28 provinces of the country.

A more extensive coverage would be provided by the National Socioeconomic Survey (SUSENAS) conducted by the national statistical office (BPS). However, preliminary income estimates using the special income and consumption module were only calculated for one year, 2005, and there are access restrictions to the income module for further years. Income includes wages and salaries received both in cash and in kind, income from agricultural business, livestock, forestry and fisheries, income from non-agricultural business and income from property, interests, dividends and other capital income. Income is gross income.

National reporting and reporting in other international agencies

The Central Bureau of Statistics (BPS) as well as other national agencies (BAPPENAS) base their estimates of inequality and poverty on the SUSENAS consumption module. SUSENAS is a large-scale multi-purpose survey initiated in 1963-1964 and fielded every year or two since then. Since 1993, SUSENAS surveys cover a nationally representative sample typically composed of 200 000 households for the core module and on a subset of households, around 65 000 for the consumption module. Around 10 000 households are followed using the consumption and income module each year since 2003. Official statistics on economic inequality are based on consumption.

In addition to SUSENAS, PBS conducts the National Labour Force Survey (SAKERNAS) since 1976. SAKERNAS is a household-based survey of persons aged 15 years and older that captures characteristics of the workforce. SAKERNAS, first fielded in 1976, 1977 and 1978, has become annual since 1986. SAKERNAS has undergone a number of changes in terms of coverage, frequency of enumeration, number of households sampled and type of information collected. The survey was held quarterly from 1986 to 1993, every August) from 1994 to 2001, and quarterly since 2002.³⁶

36. Lloyd and Smith (2001) provide measures of wage inequality based on SAKERNAS.

Indonesian data on Income and poverty are available from The World Bank PovCalNet database, based on the SUSENAS indicator of consumption per capita. The World Inequality Database (WID) reports inequality estimates based on pre-tax income sourced from tax data.

Table A B.11. Characteristics of the IFLS dataset, Indonesia

| IFLS | |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Responsible institution | RAND (www.rand.org/) |
| Coverage | Representative of about 83% of the Indonesian population and contains over 30 000 individuals living in 13 of the 27 provinces in the country. The survey exclude far eastern provinces, Aceh, and three provinces on each of the major islands of Sumatra, Kalimantan, and Sulawesi |
| Sampling | Stratified random sampling, with households selected after classifying enumeration areas into strata, selecting areas from each stratum, and surveying households from each of the randomly selected enumeration areas (321 enumeration areas selected from each of the 13 provinces based on SUSENAS) |
| Sample size (households) | 58 325 household members |
| Available years | 1993/94, 1997/98, 2000, 2007/08, 2014/15 |
| People interviewed in each household | IFLS1 conducted interviews with the household head and his spouse; two randomly selected children of the head and spouse aged 0 to 14; an individual age 50 or older and his/her spouse, randomly selected from remaining members; a randomly selected 25% of household members; an individual aged 15 to 49 and his/her spouse, randomly selected from remaining members. |
| Response rate (most recent year) | 88% of initial households are interviewed in all four waves. |
| Definition income | Salary, non-labor income, and the value of all other benefits |

Comparison of key indicators from OECD reporting and alternative sources

Gini coefficients

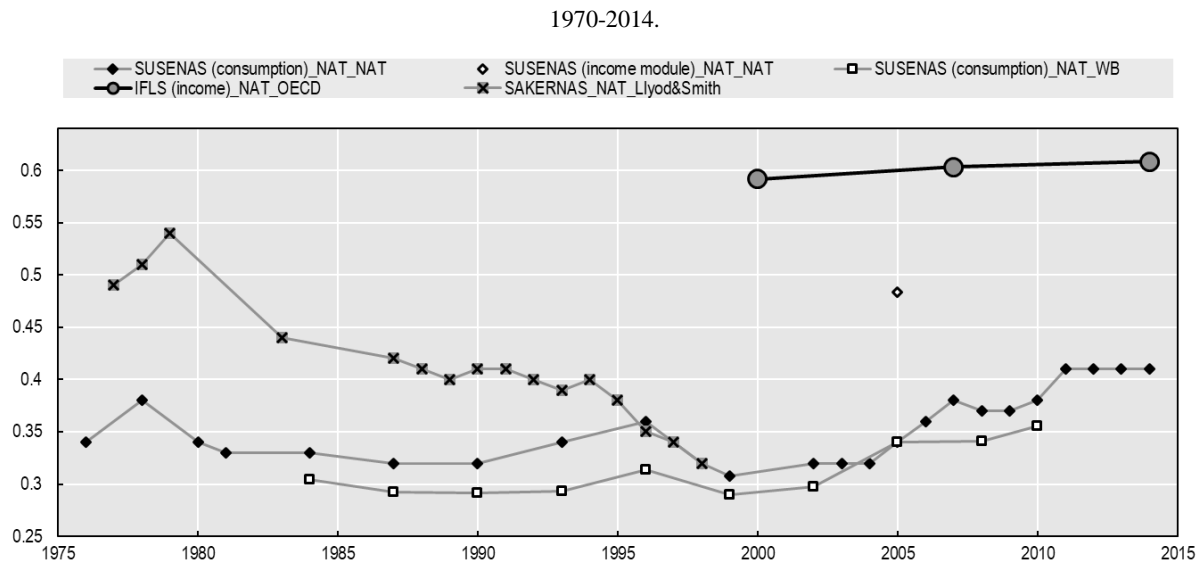
The Gini coefficient based on consumption available since the mid-1960s shows a continuous increase in inequality from the end of the 1990s until 2011, when it peaked at above 0.40. While the SUSENAS-based Gini coefficient is low relative to other countries, it has increased significantly and is now similar to other Asian countries. The World Bank report an increase similar to the one showed by BPS, but its level is 6-7% lower for all years except for 2005.

Two measures of inequality based on income are presented in Figure A B.23. First, the Gini for labour earnings based on SAKERNAS and, second, the Gini for household income based on the IFLS. The SAKERNAS trend on labour income inequality for the years 1976 to 1997 indicates a decline in wage inequality since the 1980s. Wage inequality fell by more than consumption inequality over that same time period, while being substantially higher (between 50 to 60% higher) than consumption inequality until 1995. The IFLS data show a small increase (2%) in the Gini coefficient between the 2000 and 2014, as compared to a 33% increase in consumption inequality over the same period. In terms of levels, the IFLS Gini coefficient based on income is 50% higher than that based on consumption; at 0.6, the level of income inequality in Indonesia is higher than in other emerging economies in Latin America and Asia, but lower than in South Africa.

As a comparison, WID estimates show a Gini coefficient for income of around 0.4 in the early 1990s, i.e. 7 Gini points higher than the Gini based on consumption and reported by BPS. Evidence on income inequality for Indonesia is limited. Nes (2010) reports estimates similar to those shown in Figure A B.23 using the IFLS, while Nugraha and Lewis (2013)

report a Gini of 0.41 based on net income using SUSENAS 2009; Cameron (2000, 2010) provides similar estimates for Java in 1990, at around 0.42.

Figure A B.23. Trends in Gini coefficient in Indonesia



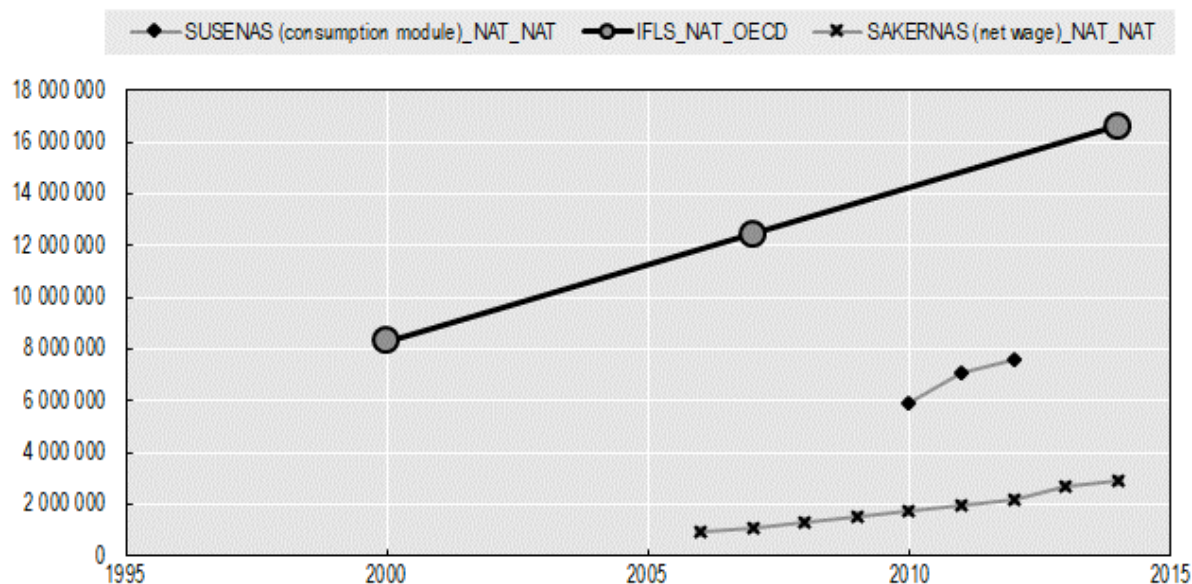
Note: BPS-SUSENAS based on consumption, World Bank based on consumption. SAKERNAS based on Lloyd and Smith (2001).

Mean income

According to both IFLS and national statistics, real mean household income has been rising since 2000. National statistics based on SUSENAS indicate an increase of 22% between 2010 and 2012. Between 2000 and 2014, mean income measured by IFLS has almost doubled.

Figure A B.24. Trends in mean household income in Indonesia

National currency, 2010 prices.



Note: Data for SAKERNAS (?) refers to the annual average of the monthly net wage perceived by regular employees.

Poverty rates

Indonesia experienced a drastic reduction of extreme poverty over the past 30-40 years. According to BPS, absolute poverty rates fell from 60% to 11% from 1970 to 1996.³⁷ The 1997 economic crisis greatly increased the number of poor people, with national statistics showing a doubling of poverty rates (to 24%) in 1998. This increase also reflected an increase of the poverty line, to take into account a broader definition of basic needs. Poverty declined since 1999, reverting to levels preceding the Asian crisis, but increased slightly in 2005-06, owing to inflation. The pace of poverty reduction slowed in recent years: from 2006 to 2010, poverty rates declined by 1.2% per annum, a pace which declined to just 0.5% per annum after 2010.

Likewise, extreme poverty, based on the international poverty line of USD 1.90/day, fell from over 70% of the population in the mid-1980s to 16% in 2009, i.e. a pace of 2.4 points per year. Levels of poverty are higher based on the international threshold than when using the national poverty line. Extreme poverty is higher than in China and in other emerging economies in Latin America and Asia with lower GDP per capita (e.g. Cambodia,

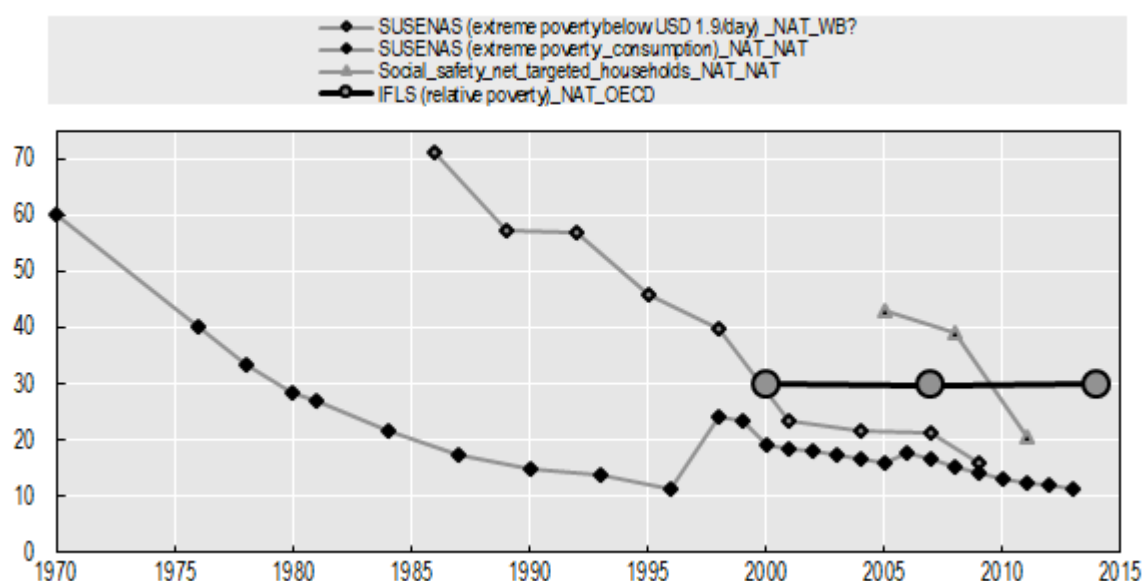
37. Poor people according to the national definition are those with monthly consumption expenditure below what is needed to purchase items (food and non-food) essentials for life. The national poverty line in March 2014 was set at a minimum spending of 302 735 rupiah (USD 25) per month for an individual, with differences between rural and urban areas and among regions, and is regularly adjusted, at least once a year, to reflect inflation in both food and non-food items. There is, however, a discussion whether the poverty line does capture the extent of those who are really in needs. There is much debate about the appropriate threshold that should be used to measure poverty. Another definition of poverty is used by Indonesian authorities for targeting social assistance; based on this measure, the proportion of households who are targeted by social safety nets because they are considered poor has been halved between 2005 and 2011, but (at 21%) remains substantial.

Vietnam), but similar to South Africa and lower than in India. In addition, the proportion of near poor people is high in Indonesia, with 42% of the population living on less than USD 3.9 a day (2011 PPP) in 2012.

Relative poverty, based on a threshold set at 50% of median income and computed from IFLS data, (at 30%) is also higher than for other emerging economies, and has stagnated since 2000.

Figure A B.25. Trends in poverty rates in Indonesia.

1970-2014.



Note: OECD calculation measures Relative poverty (OECD definition) using data from IFLS.

Metadata

Table A B.12 compares summarises some of the main methodological characteristics of different sources.

Table A B.12. Differences across sources, Indonesia

| | The National Socioeconomic Survey (SUSENAS) | The National Labour Force Survey (SAKERNAS) | IFLS |
|--------------------------------------|------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Year to which income refers | 1963-2015 | 1976, 1977, 1978, 1982, 1986, 1989-2012 | 1993/94, 1997/98, 2000, 2007/08, 2014/15 |
| Period over which income is assessed | May | August | September-March |
| Timing of the survey | Special modules conducted every 3 years until 2002, yearly thereafter | Yearly | Every 3 years until 2000; every 7 years since then |
| Sample size (households) | 285 900 households in the core module of 2008, 66 000 in the special modules | About 200 000 households | 58 325 household members |
| Response rate (most recent year) | | 69% (2012) | 88% of initial households are interviewed in all four waves. |
| Other data features | Information is included on a special module on income and consumption | | Education, migration, and labour market outcomes; marriage, fertility, and contraceptive use; health status, use of health care, and health insurance; relationships among co-resident and non-resident family members; processes underlying household decision-making; transfers among family members and inter-generational mobility; and participation in community activities. Transfer information is available since the year 2000. |
| Definition income | Food and non-food expenditure | Net wages | Salary, non-labor income, and the value of all other benefits |
| Break in series | | | |

Summary evaluation

Access restrictions to the SUSENAS income module limit the possibility to use it as a source for the OECD database. The other possible source for Indonesia, the IFLS dataset, is relatively up-to-date and undertaken regularly, and has a quite large sample size (albeit much smaller than that of SUSENAS). Downsides of IFLS are that it is not nationally representative, and that it provides little information on transfers received and taxes paid by households. Preliminary estimates from the SUSENAS income module for 2005 and from IFLS differ greatly, and more information would be necessary to understand the causes of these differences. Missing values for some income components are high for the IFLS. Further consultation with BPS and national researchers on the quality of the data will be needed before estimates for Indonesia could be included in the OECD database.

*South Africa**Available data sources used for reporting on income inequality and poverty*

Official estimates on income inequality and poverty for South Africa are released by Statistics South Africa (SSA) based on the Income and Expenditure Survey (IES) and the Living Conditions Survey (LCS). The OECD has been working with SSA to derive estimates of income inequality and poverty based on OECD specifications from the 2005/06 IES, 2008/09 LCS and 2010/11 IES. These data, however, are currently affected by large number on items non-responses; resulting estimates highlighted several odd

features (in particular on the incidence of taxes across the population), and were deemed as unsuitable for inclusion in the OECD IDD. National reporting on income inequality by SSA has undergone a range of methodological changes, which are described in Box A B.2. below.

Because of this, provisional income distribution and poverty indicators for South Africa have been calculated on the basis of the National Income Dynamics Survey (NIDS) conducted by the Southern Africa Labour and Development Research Unit (SALDRU) of the University of Cape Town's School of Economics, whose micro-records for the years 2008, 2010, 2012 and 2014-2015 are available through the Luxembourg Income Study (LIS) database.³⁸ Because of differences in the treatment of missing values for the income variables, income levels and inequality based on the 2014-15 wave are not comparable with previous waves: for this reason, only estimates referring to 2014-15 are presented in this paper and included in the OECD IDD.³⁹

Key characteristics of NIDS are detailed in Table A B.13. The NIDS includes four questionnaires:

- An household questionnaire, providing information on demographic characteristics of all the household members, total household income, grants, expenditure on food and non-food items, ownership of durable goods, lands and agricultural goods, and experience of negative events (e.g. death of family members).
- An adult questionnaire, providing information on demographic characteristics, labour market participation, income from employment, capital income, social security transfers from public sources, current transfers received and paid, levels of education, health conditions, emotional health, household decision-making, well-being, social cohesion and wealth.
- A proxy questionnaire, i.e. a reduced form of the adult questionnaire administered to a knowledgeable household member in case of absence of an adult household member.
- A child questionnaire, providing information on demographic characteristics of 0-14 year-old household members, their family situation, their health status and education).

Total household income can be calculated on the basis of information available in the adult, proxy and household questionnaires. Information on income taxes is not available at individual level, but it is reported as an expenditure item under the “Non-food spending and consumption” section in the household questionnaire. Additionally, the household

38. Summary indicators of income inequality available on the LIS website differ from those included in this report (despite the use of a common data source) due to differences in methodological assumptions: first, the OECD definition of disposable income includes inter-household transfers paid, while LIS exclude them; second, negative values of market income components reported by people interviewed are retained by LIS while they are set to zero by the OECD.

39. Other non-official surveys providing information on income inequality and poverty are: i) the Project for Statistics on Living Standards and Development (PSLSD), conducted in 1993 by SALDRU (with the assistance of the World Bank); and ii) the All Media Products Survey (AMPS) conducted by the South African Audience Research Foundation (SAARF) since 1975, but only recently used for analyses by researchers at the Stellenbosch University.

questionnaire asks a question on total income net of taxes, while the adult questionnaire asks questions on gross income.

Table A B.13. Characteristics of the NIDS dataset, South Africa

| | |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name of the survey | National Income Dynamics Survey (NIDS) (www.nids.uct.ac.za/) |
| Responsible institution | Southern Africa Labour and Development Research Unit (SALDRU), University of Cape Town's School of Economics |
| Coverage | Non-institutional civilian population |
| Sampling | Stratified two-stage cluster sample design. In the first stage, primary sampling units (PSUs) are selected from SSA's Master Sample of PSUs; in the second, non-overlapping samples of dwelling units are selected within each PSU. |
| Sample size | 37,396 individuals (in 2014-15) |
| Units non-response | 32.8% in 2008, 37.5% in 2010, 30% in 2012, 26% in 2014-15 |
| Year to which income refers | 2008; 2010; 2012; 2014-15 |
| Household | A household can be compared to a "roof" or compound/homestead/stand where individuals are either members, residents or both. An individual is considered a household member if living in the household for at least 15 days during the last 12 months or arrived at the household in the last 15 days and the household becomes their usual residence. Resident members are people living in the household for more than four nights a week. Additionally, household members and residents must share food from a common source with other household members. |
| Period over which income is assessed | Monthly for salary. Other payments are reported for the last 12 months and for the last month |
| Income definition | Gross income (adult questionnaire), net income and income taxes are surveyed in the expenditure section of the household questionnaire |

Box A B.2. Methodological changes in SSA reporting

Until 1994, the Population Census conducted by Statistics South Africa (SSA) was the only data source available to analyse income inequality and poverty in the country, as coverage of the Income and Expenditure Survey (IES) and of the October Household Survey (OHS) was limited to households in metropolitan areas, and excluded people residing in the Transkei-Bophuthatswana-Venda-Ciskei states (Yu, 2012).

After 1994, SSA extended the sample of IES and OHS to represent the whole country. In addition, SSA launched several new surveys: the annual General Household Survey (GHS) in 2002 and, since 2000, the Labour Force Survey (LFS, quarterly since 2008), replacing OHS. Since 1994, SSA has conducted three Census (in 1996, 2001 and 2011) and two Community Surveys (CS, in 2007 and 2016).

Since 1994, IES has been conducted in 1995, 2000, 2005/06 and 2010/11. Before 2005 the survey was run together with OHS (until 2000) and LFS (since 2000), with questionnaires administered to the same household at approximately the same time. In 2005, SSA introduced major methodological changes to the IES methodology; the primary goal of IES became to identify items to include in the CPI basket, and IES was no longer conducted together with OHS/LFS. To fill the information gap caused by this change, SSA designed the Living Conditions Survey (LCS), carried out in 2008/09 and 2014/15, alternating every 2.5 years with IES.

Although the Census, LFS and GHS contain questions on household income, they are less suited for income inequality analyses (Yu, 2008), due to the high shares of households that

either do not respond to the income question (6.5% of households in 1996) or report zero income (23.5% in 2001) in the Census ; and to the use of questions limited to “income from the main job” in the LFS and GHS.

SSA publishes on its website estimates of the Gini coefficient, mean household income and poverty based on IES 2005/06 and 2010/11 and LCS 2008/09 and 2014/15. Measures of income shares sourced from IES 2006 shown in the following section have been computed by the OECD based on microdata downloaded from the website of the University of Cape Town.

South African data on income and poverty are available from the World Bank PovCalNet database (<http://data.worldbank.org/country/south-africa>) based on IES. Table A B.14 below presents the characteristics of the main national surveys available in South Africa.⁴⁰

Table A B.14. Differences among sources, South Africa

| | Statistics South Africa (SSA) | Southern Africa Labour and Development Research Unit (SALDRU), University of Cape Town |
|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| | IES and LCS | NIDS |
| Years survey is available | 1995, 2000, 2005/06, 2008/09 (LCS), 2010/11, 2014/15 (LCS) | 2008, 2010, 2012, 2014-15 |
| Period over which income is assessed | Wages, salaries and/or income from other sources are reported for the last 12 months, taxes are reported over the previous month | Monthly for salary. Other payments are reported for the last 12 months and for the last month |
| Sample size | 27 527 households | 43 220 individuals |
| Treatment of negative income, zero income, missing values and extreme values | No treatment | n.a. |
| Income definition | Gross income (net income if gross income cannot be recalled). Taxes are included in the expenditure section | Gross income (adult questionnaire), net income and income taxes surveyed in the expenditure section of the household questionnaire |

1. As this data quality assessment focuses on understanding the evolution of income distribution and poverty, the information on PSLSD is reported for completeness, but it is not included in the analysis of the trends.

Comparison of key indicators from alternative sources

Gini coefficients

Income inequality in South Africa is among the highest in the world whatever the source used. Estimates of the Gini coefficient reported by SSA (sourced from IES and LCS⁴¹ and based on a concept of gross household income per capita) are close to 0.68 in 2015, with a slight but steady decline from 2006 (0.72)⁴². The OECD estimate for 2014-15, sourced from

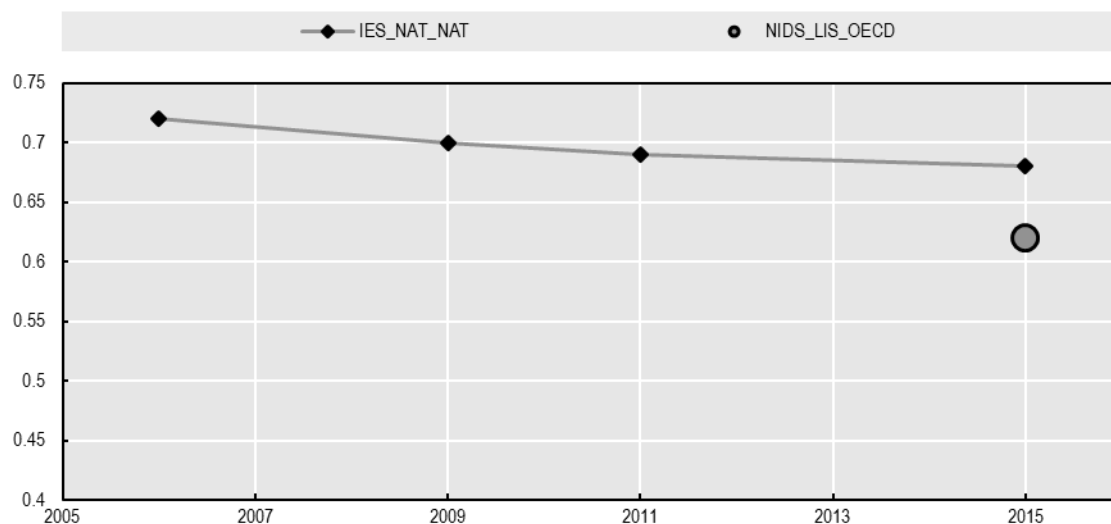
40. Information shown in Table A B.14 refers to the latest available survey unless otherwise specified.

41. In the charts of this section the acronym IES refers to both IES and LCS.

42. “The Gini based on expenditure yielded a lower level than the Gini derived using income data. In 2006 it was 0.67, dropping to 0.65 for both 2009 and 2011, and then had a further small drop to 0.64 in 2015” (SSA 2017).

NIDS and based on the concept of equivalised disposable income (at 0.62), is only marginally smaller (Figure A B.26).

Figure A B.26. Trends in Gini coefficient in South Africa

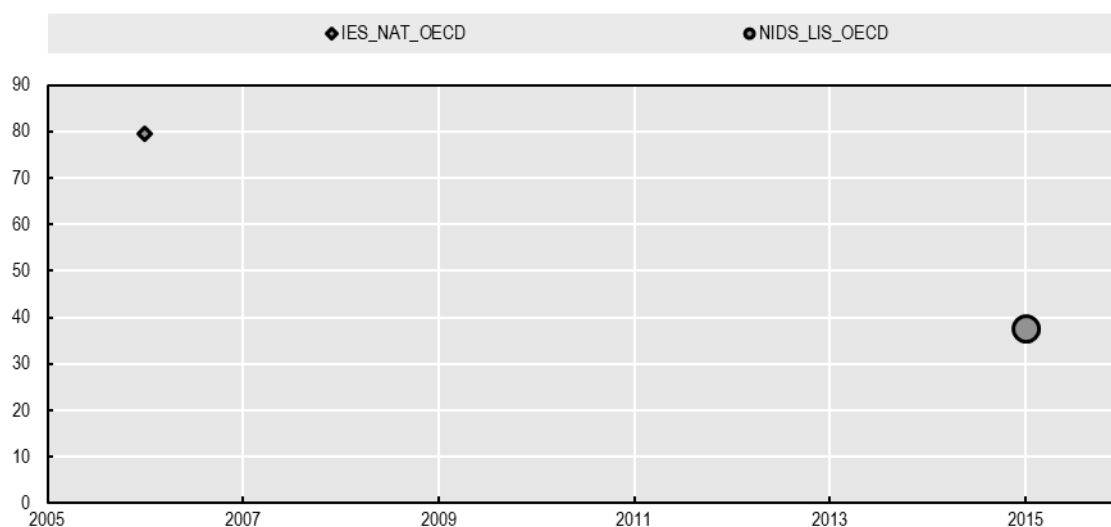


Source: Statistics South Africa (2017), “Poverty Trends in South Africa: An examination of absolute poverty between 2006 and 2015” and OECD Income Distribution Database <http://stats.oecd.org/Index.aspx?DataSetCode=IDD>.

Income quintiles

When considering other inequality measures, such as the S80/S20 inter-quintile ratio, exploratory calculations run by the OECD on IES 2005/06 show that the income of people in the highest quintile was almost 80 times higher than that of the lowest quintile in 2006, higher than more recent values based on NIDS⁴³.

43. Official estimates of S80/S20 inter-quintile ratio are not available.

Figure A B.27. Income quintile ratio in South Africa

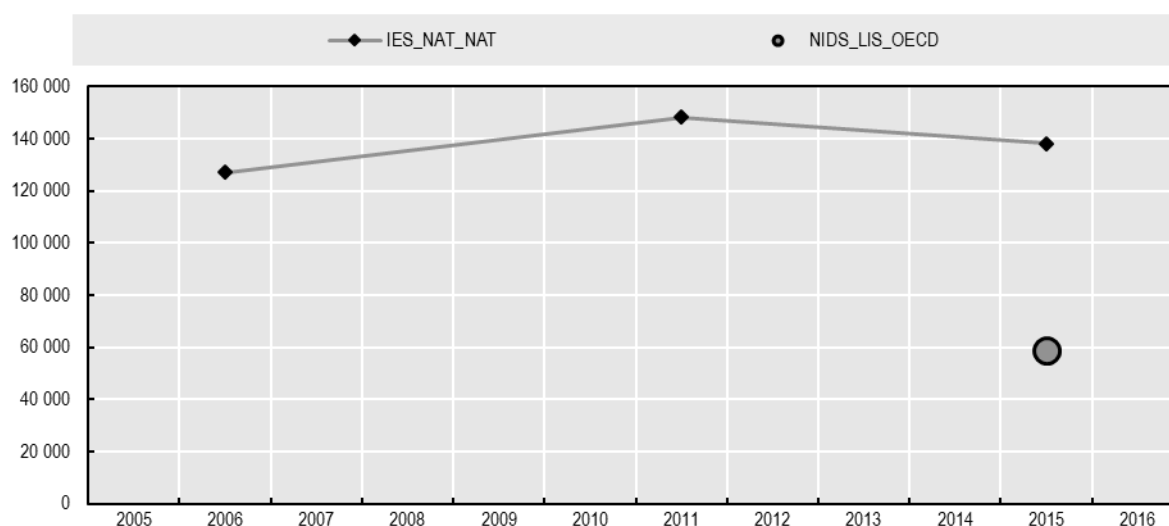
Source: Statistics South Africa (2017), “Poverty Trends in South Africa: An examination of absolute poverty between 2006 and 2015” and OECD Income Distribution Database <http://stats.oecd.org/Index.aspx?DataSetCode=IDD>.

Mean income

Official estimates of mean household income show an increase between 2006 and 2011, followed by a slight decrease in 2015. IES and LCS estimates are significantly higher than those available for 2015 through NIDS, partly due to different income definition (per capita gross income in IES and LCS, equivalised disposable income in NIDS) (Figure A B.28).

Figure A B.28. Trends in mean household income in South Africa

National currency, 2015 prices.



Source: Statistics South Africa and OECD Income Distribution Database <http://stats.oecd.org/Index.aspx?DataSetCode=IDD>.

Poverty rates

Measures of poverty in South Africa are computed by SSA based on three poverty lines:

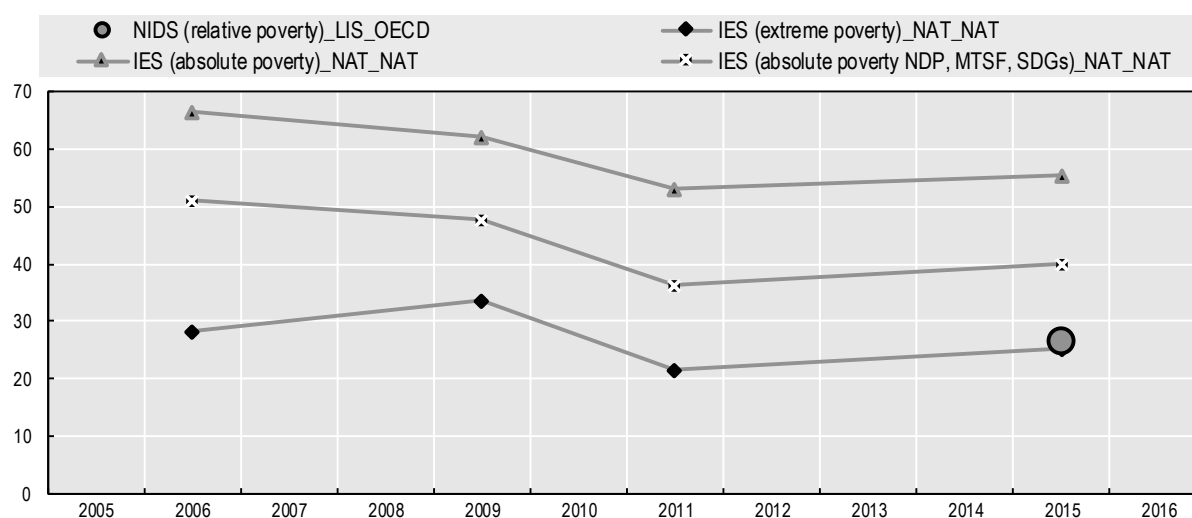
- the food poverty line (FPL), i.e. “the level of consumption below which individuals are unable to purchase sufficient food to provide them with an adequate diet” (under nourishment or inadequate pattern), which is used by SSA to define “extreme poverty”;
- the lower-bound poverty line (LBPL), which “includes non-food items, but requires that individuals sacrifice food in order to obtain these” and it is commonly used for the country's poverty reduction targets outlined in the Medium Term Strategic Framework (MTSF);
- the upper-bound poverty line (UBPL), which includes individuals who cannot purchase an adequate basket of both “food and non-food items” and is considered by SSA to estimate “absolute poverty”.

FPL poverty (“extreme poverty” in SSA reports) increased from 28.4% in 2006 to 33.5% in 2009, before dropping to 21.4% in 2011 and slightly increasing to 25.2% in 2015. A similar pattern characterises the LBPL poverty indicator, which fell from 51% in 2006 to 36.4% in 2011 before increasing to 40% in 2015. Absolute poverty (based on the UBPL) fell from 66.6% in 2006 to 62.1% in 2009 and 53.2% in 2011, but increased to 55.5% in 2015. While the decline in 2011 was driven by “a combination of factors ranging from a growing social safety net, income growth, above inflation wage increase, decelerating inflationary pressure and an expansion of the credit” (SSA, 2014)⁴⁴, the 2011-15 increase reflected “factors such as low and anaemic economic growth, continuing high unemployment levels, low commodity prices, higher consumer prices (especially for energy and food), lower investment levels, greater household dependency on credit, and policy uncertainty”(SSA, 2017).⁴⁵ Although South Africa has adopted three national poverty lines for the official statistical measurement of poverty, the LBPL has emerged as the preferred threshold (SSA 2017).

The OECD-type measure of relative-income poverty for 2014-15, defined as the percentage of people whose income falls below 50% of the median income, sourced from NDIS, stands at 26.6%, close to official estimates of extreme poverty.

44. Source: Poverty Trends in South Africa: An examination of absolute poverty between 2006 and 2011, Statistics South Africa, 2014

45. Source: Poverty Trends in South Africa: An examination of absolute poverty between 2006 and 2015, Statistics South Africa, 2017.

Figure A B.29. Trends in poverty rates in South Africa

Source: Statistics South Africa (2017), “Poverty Trends in South Africa: An examination of absolute poverty between 2006 and 2015” and OECD Income Distribution Database <http://stats.oecd.org/Index.aspx?DataSetCode=IDD>.

Summary evaluation

While, overall, the IES carried out by SSA would provide a better basis for computing income distribution estimates, the limited “data cleaning” of micro-data do not allow producing credible estimates. Estimates sourced from NIDS, while based on a smaller sample size, are included in the OECD IDD as placeholder until better quality official data become available.