The Statistics Newsletter

For the extended OECD statistical network

FEATURING

+ OECD Compendium of Productivity Indicators 2018

+ Gender in Global Value Chains

+ Private philanthropy for development

www.oecd.org/sdd/statisticsnewsletter
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Weak productivity growth remains the backdrop in most OECD economies, which, in turn, means that productivity remains very much at the forefront of policy making. The OECD Compendium of Productivity Indicators - an annual publication - aims to inform the debate through the provision of a consistent set of annual estimates of labour, capital and multifactor productivity growth, unit labour costs and related indicators for OECD member countries and key partner economies, including targeted focuses on the relationships and interaction between productivity growth, firm size, globalisation and wages.

Each year, the Compendium also includes a special introductory chapter looking at specific, statistically oriented issues. This year the introductory chapter places a spotlight on the importance of granular information in analysing productivity.

The main findings of the 2018 edition are summarised below.

**Economic growth is picking up but labour productivity growth remains weak**

Global economic growth remains solid and broad-based, even though the pace has eased in recent periods. But while the upturn is set to persist into 2018, it has been modest, partly reflecting continued relatively weak labour productivity growth in most countries (Figure 1). In the OECD as a whole, labour productivity in the post-crisis period has grown at about half the rate of the pre-crisis period. And while the slowdown has been widespread across all major sectors, it has been particularly marked in manufacturing, where productivity growth rates remain well below pre-crisis levels in most countries, in particular in the Czech Republic, Finland, Hungary, Korea, Latvia, Sweden and the United States.

**Capital deepening has also been weak**

Although there are some signs that investment may be beginning to pick up, the recovery remains modest, with capital deepening, i.e. increases in capital per hour worked, from both ICT and non-ICT capital, stalling in many countries in the post-crisis period, compounding the longer term slowdown in productivity growth seen before the crisis in many countries. Slower capital deepening rates in part reflect higher employment, but are also in line with lower investment rates, especially in tangible assets, i.e. dwellings, non-residential construction, machinery and equipment and cultivated assets, which, in most countries, showed only a marginal improvement on the crisis lows and remain below pre-crisis rates (Figure 2). However, investment in intellectual...
property products, where the benefits of the investment may not accrue immediately and are often lagged, has remained more robust, marginally increasing in most countries; which may act as a catalyst for stronger economic growth going forward.

Employment growth has been a key driver of economic growth in many countries, but employment gains have occurred mainly in low productivity activities

Among advanced economies, in particular, the United Kingdom and the United States, and more recently in Mexico, Spain and Italy, the recovery in GDP growth has been largely sustained by increasing employment gains, making up for limited labour productivity growth. However, a concern that has emerged in recent years is that many jobs are being created in lower labour productivity activities, dragging down overall labour productivity.

More jobs in lower labour productivity activities has also meant more jobs with below average wages in most economies, working to weigh down on average salaries in the economy as a whole. Moreover, growth in real wages (compensation per hour worked), adjusted for inflation using the consumer price index (CPI), has also been lagging labour productivity growth in many countries in the post-crisis period (Figure 3). Indeed, real wages on this basis declined between 2010 and 2016 in some countries, such as Spain and the United Kingdom.

But even in countries where decoupling at the whole economy level has been less apparent, this is not always true at the sectoral level, which may have implications for inclusive growth. For example most sectors saw lower growth in real wages than labour productivity growth in France, and even in the United States and Germany, where real wages have begun to outpace labour productivity growth in recent periods, about one third of sectors saw real wage growth lag labour productivity growth; with potential implications for inclusive growth that may not be apparent when looking at the whole economy picture.

Figure 2. Investment rates, total economy
Gross fixed capital formation by asset type as a percentage of GDP

![Investment rates, total economy](http://dx.doi.org/10.1787/888933733372 - Source: OECD (2018), OECD National Accounts Statistics (database), http://dx.doi.org/10.1787/na-data-en)

Figure 3. Labour productivity and average labour compensation per hour, total economy, 2010-2016
GVA per hour worked and average hourly employee labour compensation, percentage change at annual rate

The 6th OECD World Forum, organised by the OECD and Statistics Korea, will examine the Future of Well-being and explore the trends that will re-shape people’s lives in the decades to come. High-level experts will intervene in roundtables and parallel sessions and will analyse three major trends – the digital transformation, the changing role of governance, and the emergence of the private sector as an important actor for ensuring sustainable and inclusive well-being.

Since 2004, the OECD World Forums have brought together thousands of leaders, experts and practitioners from a range of fields to discuss and push forward well-being measurement and policy. We are pleased to confirm that many high level speakers are attending this year’s Forum, with Joseph E. Stiglitz, Nobel Prize laureate, and Ohood bint Khalfan al Roumi, Minister of State for Happiness in the United Arab Emirates confirmed, as well as former Secretary-General of the United Nations, Ban-ki Moon, and Executive Secretary of the Economic Commission for Latin America and the Caribbean at the United Nations, Alicia Bárcena, delivering keynote addresses.

More on the Forum including a detailed programme is available at: www.oecd-6wf.go.kr

In parallel to the Forum, there will be an Exhibition where organisations with projects relevant to the Forum themes can display their work. Interested in attending or holding a stand at the Exhibition? Contact us at: wellbeing@oecd.org

Compare your income now covers social mobility

Statistics on income inequality are regularly produced by researchers and statistical offices around the world, and often make the headlines. What remains unclear is how much inequality people perceive, and what degree of inequality they regard as ideal or acceptable.

With the objective of better understanding people’s perceptions of income inequality, in 2015 the OECD launched a web-tool called Compare your income (compareyourincome.org), which allows users to compare their perceptions of where they fit in their country’s income distribution with the reality.

Based on the most recent data from the OECD Income Distribution Database (http://oe.cd/idd), Compare your income strives to present OECD data in an innovative way, while gathering information allowing the OECD to conduct analysis on whether people have a good appreciation of income distribution inequality in their country.

Three years after its debut and with more than 2 million users having used Compare your income, the web tool has been updated to include new questions on economic mobility across generations. Users are asked to compare their financial situation with that of their parents at the same age, and to let us know whether they think children today will be better or worse off financially than their parents in the future. The updated web tool, launched on 15 June, was accompanied by the release of the OECD report A Broken Social Elevator? How to Promote Social Mobility (http://dx.doi.org/10.1787/9789264301085-en).

This updated version covers not only OECD countries, but also selected emerging economies — including Brazil, China, Costa Rica, India and South Africa — and is available in eleven languages. The questions related to perceptions of economic mobility data come from the Pew Research Center (pewresearch.org), a non-advocacy, global fact tank.

Visit Compare your income today and see how your perceptions measure up to reality!
Gender in Global Value Chains

How does trade affect male and female employment?

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Recent years have seen growing concerns that the impact of globalisation may have created winners and losers and that more concerted efforts are needed to Make Trade Work for All. A significant focus of these efforts has been at the sectoral level and on the skills and occupations of the workers affected. However, partly reflecting limited data, there has been considerably less commentary on the gender impact of globalisation, particularly concerning whether the impact of structural shifts created by globalisation have had a disproportionate impact on female employment rates, when compared to the economy as a whole.

Preliminary analyses produced by the OECD (Figure 1) show that the share of male employment that is directly (i.e. employment in exporting firms sustained through exports) and indirectly (i.e. employment sustained through upstream supplies to exporting firms) dependent on trade is much higher than that of women (on average 37% of full time equivalent - FTE - jobs compared to 27% across OECD countries).

Moreover, there are strong gender differences in the way in which male and female employment is supported by exports. In nearly all economies, women’s share in employment sustained by exports is significantly higher in indirect channels (i.e. at the upstream suppliers of firms that subsequently export) compared to direct channels (i.e. at the exporting enterprises themselves). For example, in Germany, women’s share of jobs sustained through direct manufacturing exports was just over 20% in 2014, but close to 35% of jobs that are indirectly sustained by trade (Figure 2).

The nature of the upstream participation also differs significantly between men and women (Figure 3). Whilst most upstream jobs are in the services sector for both men and women, for women this is disproportionately the case. In Germany for example, less than 20% of female upstream jobs are in industrial and goods sectors (agriculture, utilities, construction, manufacturing and mining), while nearly half (45%) of male upstream jobs can be found in these industries.

To some extent, the results are not altogether surprising, as variations in the participation of male and female employees in GVCs are largely accounted for by differences in female labour participation across industries (and the relative contribution of these industries to total trade). Female participation rates for example are much higher in services such as health and education than in say manufacturing, a sector where on average only 1 in 4 employees in OECD countries is female.

However confirming ‘a prioris’ and providing empirical estimates of dependencies is not without merit. For example, in sectors and countries that have seen significant growth through integration in GVCs, existing gender employment gaps may translate into rising whole economy gender wage gaps, thus exacerbating inequalities and reinforcing the importance of increasing female participation in these sectors. But equally the data reveal the importance of looking through the value chain and recognising the scope for participation, and potential wage growth in upstream sectors.
The analysis of female employment in global value chains was produced via a combination of the Inter-Country Input-Output tables from the OECD-WTO TiVA (http://oe.cd/tiva) and now-cast TiVA (http://oe.cd/tiva-nowcast) databases for the years 2008-2014, and a vector of labour input by industry, measured in hours worked as reported in the National Accounts, broken down by gender. The breakdown by gender was derived from Labour Force Surveys, which is the only source that produces such breakdowns at a sufficiently detailed level to support such analysis, using a combination of total employees (male/female) broken down by industry, corrected for the average weekly working hours, to adjust for the fact that in many countries, women work fewer hours on average. Further details on the methodology are described in the accompanying note.3

Further work

It is important to consider the various caveats that underpin this work, and indeed all other current analyses of the impact of global value chains on employment, which means that the estimates should be viewed as upper-bounds. This reflects two factors. First, because they are based on industry averages, current TIVA indicators over-estimate the domestic value-added content of exports and the indirect domestic contribution (because within each industry, those firms that account for exports typically also have (much) higher imports than non-exporting firms). Second, the analyses do not correct for the higher labour productivity (and thus lower jobs per unit of value-added) that exporting firms typically display.

The OECD Statistics and Data Directorate, in collaboration with statistical offices in Member States, is working to develop more granular data and additional information to address these concerns, as part of the work conducted in the context of the OECD Committee on Statistics and Statistical Policy’s Expert Group on Extended Supply and Use Tables. An important component of this work involves the separate identification of different types of firms (e.g. exporting and non-exporting firms) in national Supply-Use and Input-Output tables (which form the core input, together with bilateral trade statistics for the construction of Inter-Country Input-Output tables), including their employment, labour productivity and wages (within industries). With such information, much more precise and detailed analyses could be made going forward.


Figure 2. Share of women in direct and indirect domestic employment sustained by manufacturing exports, 2014

Source: Estimates produced by the OECD
Global Revenue Statistics
Providing comparable tax revenue data for countries around the globe

Statistics on public revenue - and on tax in particular - are essential for assessing economic structures, designing tax and customs policies, and implementing administrative reforms. As the importance of taxation in international trade and development grows, so does the need for comparable tax data.

The Global Revenue Statistics project provides reliable, detailed, and comparable data on public revenues for more than 80 countries, within and beyond the OECD. It is based on four annual publications – Revenue Statistics in OECD Countries, Revenue Statistics in Africa, Revenue Statistics in Asian Countries, and Revenue Statistics in Latin America and the Caribbean – presenting comparative analysis over time. The publications also present country-specific tables reporting tax revenue as well as tax-to-GDP ratios, broken down by selected tax categories (income, goods and services, payroll, property, social security contributions) and by level of government (central/federal, regional/state, local, as well as social security contributions and supra-national where relevant). Finally, the publications provide tailored insights into tax revenue priorities in each region and into tax systems in participating countries. The data produced for each publication feed the Global Revenue Statistics Database (launched in June 2018), which provides the largest public source of comparable tax revenue data, produced in partnership with participating countries and regional organisations and with the financial support of the European Union.

Global Revenue Statistics contributes directly to the Sustainable Development Goals and the UN Financing for Development agendas. With an increasing number of participating countries around the globe, Global Revenue Statistics provides an important evidence-base for dialogue, learning and joint action in support of domestic resource mobilisation and is a critical resource for policy makers and researchers seeking to understand different revenue sources in the context of a country’s domestic priorities.

Global Revenue Statistics builds on two core OECD strengths: producing high-quality, harmonised statistics; and providing a forum for technical and policy dialogue amongst peers in the area of taxation and public revenue statistics. It is based on a longstanding, internationally-recognised methodology – the OECD Interpretative Guide – developed by and for tax policy makers and aligned with the System of National Accounts (2008 SNA), the European System of Accounts (2010 ESA), and the International Monetary Fund Government Finance Statistics Manual (GFSM2014). Global Revenue Statistics data are produced in co-operation with participating countries, through a collaborative process that improves data quality and comprehensiveness, allows for adapting to countries’ specificities, and supports countries in addressing data challenges.

For more information, visit: http://oe.cd/global-rev-stats-database
Women and men in decision making

The number of women holding decision-making positions has been increasing gradually over the last ten years, from politics to business and media. However, data reveal that gender imbalance in decision-making positions is still prevalent across a number of areas. The European Institute for Gender Equality (EIGE) provides comparable statistics for the 28 EU Member States on decision-making that can be used to analyse the current situation and trends in gender balance.

Progress towards gender balance in politics is slow and uneven. The latest data show that in national parliaments across the EU, women account for less than a third of the members (30%). This figure varies considerably across Member States, from 45.8% in Sweden to 11.6% in Hungary. The proportion of women among senior ministers in national governments (i.e. those with a seat in the cabinet) across the EU was 29.3% in 2018.

The share of women on the boards of the largest listed companies has more than doubled from 11.9% in 2010 to 25.3% in 2017. However, the progress has been concentrated in just a few countries such as France, Germany and Italy, where governments have taken legislative or other forms of action. At the most senior levels of top management, men still hold a large majority. For example, only 5.5% of CEO positions are held by women.

Rethinking Urban Sprawl: Moving Towards Sustainable Cities

This report provides a new perspective on the nature of urban sprawl and its causes and environmental, social and economic consequences. This perspective, which is based on the multi-dimensionality of urban sprawl, sets the foundations for the construction of new indicators to measure its various facets. The report uses new datasets to compute indicators for more than 1100 urban areas in 29 OECD countries over the period 1990-2014. It then relies on cross-city, country-level and cross-country analyses of these indicators to provide insights into the current situation and evolution of urban sprawl in OECD cities. In addition, the report offers a critical assessment of the causes and consequences of urban sprawl and discusses policy options to steer urban development to more environmentally sustainable forms.

The report reveals growing urban sprawl in most of the 29 OECD countries examined. While urban areas have become denser on average, the share of land allocated to very low density areas has also grown, and today 60% of urban space is sparsely populated.

Private philanthropy for development: how much, for whom, and for what purpose?

Highlights from a recent data survey
Cécile Sangaré (cecile.sangare@oecd.org) and Tomáš Hos (tomas.hos@oecd.org), Development Co-operation Directorate, OECD

In recent years, private philanthropic foundations have increasingly gained importance when it comes to financing for development. The Addis Ababa Action Agenda for Financing for Sustainable Development and the SDGs (Goal 17) recognise private philanthropy as an important player in development and call for greater transparency and more data on the spending of these private actors for development.

Many foundations already engage in various data sharing and transparency initiatives. However, while these initiatives improve transparency across private philanthropy, there is a lack of internationally comparable data on foundations’ activities for development. This is a major obstacle for analysing foundations’ contributions to development co-operation and their relation to other financial flows such as Official Development Assistance (ODA).

A key step forward was made in 2010 when the Bill and Melinda Gates Foundation (BMGF) engaged in regular reporting to the OECD on its development grant making and program-related investments, following the Development Assistance Committee (DAC) statistical standards on development finance. For the first time, its development financing could be presented in comparison with ODA and other flows in support of development. Currently, almost 100 countries and international organisations report on a regular basis to the OECD-DAC system. Beyond BMGF’s data, the collection and availability of internationally comparable and reliable statistics on other foundations’ activities remained, however, rather limited.

Data survey on Private Philanthropy for Development

To address this data gap, the OECD Development Co-operation Directorate (DCD) carried out its first ever data survey on Private Philanthropy for Development during 2016-17. The survey collected activity-level information on charitable expenditures of more than 140 philanthropic foundations all over the world during 2013-15, using a simplified version of the DAC template to ensure

\[
\begin{array}{lcc}
\text{United States} & \text{Health} & \text{Population & reproductive health} \\
\text{Global Fund} & 12.9 & \\
\text{PRIVATE FOUNDATIONS} & & \\
\text{United Kingdom} & 4.8 & \\
\text{IDA} & & 4.7 \\
\text{Gavi, the Vaccine Alliance} & & 4.6 \\
\text{IADB} & 2.6 & \\
\text{Germany} & & 2.1 \\
\text{EU Institutions} & 1.8 & \\
\text{Japan} & 1.8 & \\
\end{array}
\]

Note: In figure 1 core contributions to multilateral organisations are excluded to avoid double counting with the outflows from these organisations. For example, in the case of the private foundations, the amount excludes the BMGF’s core support to Gavi, the Vaccine Alliance (USD 1.55 billion in 2015). IDA stands for the International Development Association and IADB for the Inter-American Development Bank.

comparability. The template sought detailed information on the amounts, geographical and sectoral distribution, channels and modalities of delivery of foundations’ financing and also other qualitative data (e.g. contribution to climate action and women’s empowerment). The data survey provided a unique source of information and contributed to shedding light on private philanthropy for development.

Philanthropic flows are rather modest compared to ODA, but in key sectors such as health, private foundations appear to be significant actors.

Foundations provided USD 23.9 billion for development over the period 2013-15, i.e. on average USD 7.96 billion per year. While philanthropic funds remain relatively modest compared to ODA (5% of the three-year total), foundations have already become major partners in some specific areas. For example, in the health and reproductive health sectors during 2013-15, foundations’ support was the third-largest source of financing for developing countries, following the United States and the Global Fund to Fight AIDS, Tuberculosis and Malaria. Focusing on the health sector alone, private philanthropic foundations were the most significant source of development finance.

The sources of philanthropic giving for developing countries are highly concentrated. Almost three-quarters (74%) of the funds were provided by foundations based in the United States and 49% of the total relates to the BMGF only.

Philanthropies favour investing in stable, middle-income economies and through large, established partners, such as international organisations and NGOs.

The report shows that 67% of philanthropic funds that could be allocated to country of destination were targeted to middle income countries, such as India (7% of the total), Nigeria, Mexico, People’s Republic of China, Ethiopia or South Africa. Only a third of the these funds benefited the least developed countries (28%) and other low-income countries (5%).

In addition, almost all philanthropic financing (97%) was implemented through intermediary institutions, also referred to as “channels of delivery”. The report shows that a substantial amount, especially in the health and reproductive health sectors, was channelled through international organisations and large international NGOs, such as Gavi, the Vaccine Alliance, the World Health Organisation (WHO), Path International, the United Nations Children’s Fund (UNICEF) and Rotary International.

Health and reproductive health were by far the main sectors targeted by philanthropic foundations, followed by education and agriculture.

Approximately 53% of the philanthropic funds targeted health and reproductive health sectors. Infectious
Figure 4. Main channels of delivery of foundations’ giving, 2013-15

- NGOs, civil society, PPPs, networks and for-profit private sector: USD 11.9 billion (50%)
- Universities, teaching institutions, research institutes and think tanks: USD 5.3 billion (22%)
- Multilateral organisations: USD 4.4 billion (19%)
- Government agencies, official sector: USD 0.4 billion (2%)
- Direct giving (not channelled): USD 0.8 billion (3%)
- Other unspecified channels: USD 0.7 billion (3%)


Figure 5. Sectoral distribution of foundations’ giving, 2013-15, USD billion

- Health & reproductive health
  - Bill and Melinda Gates Foundation: USD 2.1 billion
  - Other foundations: USD 10.5 billion
- Education
  - Bill and Melinda Gates Foundation: USD 1.9 billion
  - Other foundations: USD 1.2 billion
- Agriculture
  - Bill and Melinda Gates Foundation: USD 1.7 billion
  - Other foundations: USD 0.2 billion
- Government & civil society
  - Bill and Melinda Gates Foundation: USD 1.7 billion
  - Other foundations: USD 0.1 billion
- Environmental protection
  - Bill and Melinda Gates Foundation: USD 1.1 billion
  - Other foundations: USD 0.9 million
- Other social infra. & services
  - Bill and Melinda Gates Foundation: USD 0.9 billion
  - Other foundations: USD 0.8 billion
- Humanitarian assistance
  - Bill and Melinda Gates Foundation: USD 0.7 billion
  - Other foundations: USD 0.7 billion
- Banking & financial services
  - Bill and Melinda Gates Foundation: USD 0.7 billion
  - Other foundations: USD 0.7 billion
- Other
  - Bill and Melinda Gates Foundation: USD 2.2 billion
  - Other foundations: USD 10.4 billion


Figure 6. Foundations’ contribution to the SDGs (as % of total giving)

- SDG 1: 9%
- SDG 2: 15%
- SDG 3: 55%
- SDG 4: 16%
- SDG 5: 16%
- SDG 6: 16%
- SDG 7: 7%
- SDG 8: 11%
- SDG 9: 15%
- SDG 10: 17%
- SDG 11: 11%
- SDG 12: 15%
- SDG 13: 7%
- SDG 14: 11%
- SDG 15: 7%
- SDG 16: 11%
- SDG 17: 7%

Diseases (e.g. poliomyelitis, malaria, STD incl. HIV/AIDS, tuberculosis, diarrhoeal diseases) were the most targeted causes (62%), followed by 18% for reproductive health and family planning.

Foundations can play an important role in funding SDG 3 (“Good Health and Well-being”).

The survey also aimed at providing rough estimates of foundations’ possible contribution to financing the SDGs. This information is mainly based on the sectoral allocation and the descriptive information of individual activities. Overall, as shown in Figure 6, foundations seem to have the potential to contribute to the realisation of SDG 3 (“Good Health and Well-being”) in developing countries. However, the survey results also indicate that foundations’ activities also contribute to SDG 10 (“Reduced Inequalities”), SDG 4 (“Quality Education”), SDG 5 (“Gender Equality”), SDG 9 (“Industry, Innovation and Infrastructure”) and SDG 2 (“Zero Hunger”) as well.

For more findings

The main findings of the survey results are summarised in the OECD DCD working paper on Foundations’ Giving for Development\(^5\) and the OECD Report on Private Philanthropy for Development\(^6\). The data are available at a semi-aggregate level through a downloadable dataset and a data visualisation tool.\(^7\)

Statistical engagement on regular reporting

Building upon its long-standing experience on data collection, standardisation and dissemination, as well as the new relationships established through the survey, the OECD DCD has been approaching the largest foundations to sustain these statistical efforts through regular reporting to the OECD according to the DAC statistical standards.

Following the example of the BMGF, the United Postcode Lotteries (Dutch Postcode Lottery, Swedish Postcode Lottery and People’s Postcode Lottery) and the MetLife Foundation started sharing activity-level data with the OECD in 2017 and 2018 respectively. Discussions on potential data partnerships are also on going with approximately twenty other foundations.

Collecting data from a larger group of philanthropic foundations is part of the OECD DCD efforts to capture new realities in financing for sustainable development, in particular beyond traditional ODA. The survey was a key step towards more and better data on private philanthropy for development. It is expected that more foundations will engage in regular reporting to the OECD in the near future. Transparency and the availability of comparable and reliable data are central to more effective aid co-ordination, partnerships and other forms of collaboration.

More information:


Notes:

2. In the DAC statistics, the full sector name is “population policies/programmes and reproductive health”.
3. Approximately 41% of the philanthropic funds were country-allocable. The remaining 59% had a regional or multi-country scope or were unallocable in terms of geography.
4. The BMGF’s core contribution to Gavi, the Vaccine Alliance in 2015 (USD 1.55 billion) is included in the bar for the health & reproductive health sector.
The upcoming 16th edition of the IAOS Conference, to be held at the OECD headquarters in Paris, will look at "Better Statistics for Better Lives". To be held 19-21 September 2018, the conference will give participants the opportunity to discuss the most pressing problems regarding the production, dissemination, and use of official statistics. This conference will be an important driver of the agenda towards better understanding of official statistics, increasing their usefulness, addressing challenges, and finding potential options to improve statistics in a particular subject or field.

The conference programme is organised around five main themes: (i) sustainability; (ii) well-being and quality of life; (iii) the future role of official statistics; (iv) communication and statistical literacy; and (v) the measurement and impact of digitalisation and globalisation. Three keynote speakers will address the following topics:

- Branko Milanovic (Visiting Presidential Professor at the Graduate Center City University of New York and Luxembourg Income Study (LIS) Senior Scholar): Recent changes in global income distribution and their political consequences.
- Eduardo Sojo Garza-Aldape (General Director, National Laboratory of Public Policy (LNPP), Center for Economic Research and Teaching (CIDE), Mexico): SDGs, an inspiring framework to change the way we use and produce statistics. A user opinion.

The full draft programme of the conference and other information on the conference can be found at [www.oecd.org/iaos2018/](www.oecd.org/iaos2018/)

The Fourth meeting of the OECD Expert Group on Extended Supply and Use Tables (EGESUT) took place 6-7 June 2018. Extended supply and use tables (ESUTs) provide a key accounting framework for integrating disparate statistics, providing important scope for improved and coherent accounts, nationally and, via global (extended) supply and use tables, internationally, serving in turn as key building blocks of integrated international economic accounting frameworks.

They provide a mechanism for responding to a wide range of policy questions, such as the role and impact of multinational enterprises, small and medium sized enterprises, and other types of firms in global value chains, and on the relationship between trade, investment and productivity. In addition, ESUTs provide an ideal vehicle to respond to questions on the impact of globalisation on jobs, wages, and the environment.

The fourth meeting of the group brought together representatives from 11 countries. Efforts by Austria, Belgium, Canada, Chile, Costa Rica, Denmark, Korea, Mexico, the Netherlands and the United States all confirmed the importance of capturing heterogeneity, especially for analyses of global value chains, with results revealing significantly different levels of integration when comparing conventional SUTs with Extended SUTs. For example, in the Netherlands the import content of exports of SMEs is 19% while that of large firms is 41%. For more information on the work of the EGESUT, please see its Terms of Reference ([www.oecd.org/sdd/its/Extended-supply-Use-Tables-ToR.pdf](www.oecd.org/sdd/its/Extended-supply-Use-Tables-ToR.pdf)) or the OECD webpage on Enterprises in Global Value Chains with additional reports ([www.oecd.org/sdd/its/enterprises-in-global-value-chains.htm](www.oecd.org/sdd/its/enterprises-in-global-value-chains.htm)).
World Energy Prices
The newest statistical database of the International Energy Agency

In May 2018, the International Energy Agency (IEA) released the first edition of World Energy Prices (www.iea.org/statistics/prices), containing end-use prices for gasoline, diesel, electricity and other selected energy products, for over 100 countries. Energy prices vary from one country to another depending on the availability of resources, government policies and level of economic development. With its global coverage, the new database complements the OECD Energy Prices and Taxes (http://data.iea.org/payment/products/111-energy-prices-and-taxes-quarterly.aspx), filling a gap not currently covered by other international data sources.

The database was developed researching and assessing available country-specific data to derive internationally comparable annual average national prices by product and end-user. The initial focus is on transport fuels and electricity, although further enhancements are ongoing. Data were obtained from official sources – in some cases from direct country submissions. The documentation (http://wds.iea.org/wds/pdf/WorldEnergyPrices_Documentation.pdf) includes sources, descriptions of the country-specific methodologies and – for key economies – an overview of the national energy price framework, with information on taxes and subsidies.

As an example of the insights that can be derived from these data, Figure 1 shows how end-use gasoline prices varied greatly across countries: from 0.24 USD/l in Saudi Arabia to over six times that amount in Norway (1.77 USD/l). Both of these countries are crude oil exporters, and the price difference between them is mainly determined by national policy decisions in the form of taxes and/or subsidies. More visualisations and data by country can be found at www.iea.org/publications/freepublications/publication/WorldEnergyPrices2018Overview.pdf.

Thanks to this release, the share of global energy consumption covered by IEA information on prices significantly increased – to 96% of global consumption for gasoline, 94% for automotive diesel, 90% for electricity in households, and 54% for electricity in industry. Further efforts will look at filling remaining gaps, such as those for Africa, and expanding the products covered.

For questions and comments, please write to prices@iea.org. For more information on energy statistics, please visit www.iea.org/statistics.

Figure 1 - Gasoline prices in 2017*

USD/litre

*This map is without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

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Innovations in computing and machine learning are expected to shape the digital transformation, affecting labour markets, firm dynamics and productivity growth, while also increasingly providing sources of new smart data that can give insights on digital transformation. Based on work by the Microdata Lab of the OECD Directorate for Science, Technology and Innovation (STI) as part of the measurement strand of the OECD Going Digital project (www.oecd.org/going-digital), this note provides policy relevant and statistical insights concerning open-source software, namely the R statistical language. This analysis used web-scraping and text-mining techniques to extract author names and download figures for all R packages hosted on CRAN (the Comprehensive R Archive Network) between October 2012 and December 2017. Further information was obtained on location and latest professional affiliation for the top 1,000 most downloaded package authors, using web-scraping and manual search.

Some background on R

Ross Ihaka and Robert Gentleman of the University of Auckland began working on R in 1992, with an “R Core Team” created in 1997, whose members were able to modify R source code. Uptake of the software has grown spectacularly since then, with monthly downloads increasing more than 500-fold to 32 million between October 2012 and December 2017, at which point over 12,000 distinct packages were available for download.

According to Kaggle’s 2017 survey¹, R was the second most used language by data scientists (after Python, and ahead of SQL), and, perhaps not surprisingly given that it was specifically designed for statistical analysis, the most widely used by statisticians.

Free assets and services in the System of National Accounts: the case of open source software

Within the 2008 System of National Accounts, by convention, and indeed conceptually, because there is a zero-price and no single owner who receives economic benefits, open-source software is not included on the balance sheets.

However that is not to say that it has no value. From a consumer’s perspective it clearly does, as witnessed by its large take-up; and the same is true for almost 13,000 people who have authored or co-authored R packages. Lerner and Tirole (2002)², for example outlined several motivations for taking part in open-source projects, including: improving one’s job performance; intrinsic pleasure of solving challenging problems; ego gratification from peer recognition; and potential for job offers in the future linked to their open source work.

As such there is a growing recognition that, even if the value of the assets and the services they provide is outside of the scope of GDP, estimates of their utility to consumers would be very useful for measures of material well-being and to feed discussions on consumer surpluses created by digitisation. Indeed this is exactly what is being investigated by an OECD Advisory Group looking at the measurement challenges of digitisation on macro-economic statistics.³

Figure 1. Professional affiliation of top 1,000 R package authors, by count (left) and weighted by downloads (right), as a percentage share, October 2012 – December 2017
Notwithstanding the challenges inherent in imputing a utility reservation price for free assets and services a first step in this direction is to look at counts – numbers of producers and numbers of users, and indeed where they are.

From a production perspective, over 65% of the R authors are affiliated to universities and research institutions. 27% are affiliated to private institutions (such as RStudio, AT&T Labs, Microsoft, Facebook, Google or Novartis), and a further 3% to both a research institution and the private sector. When weighted by downloads, the private sector share increases to over 30%, and the share of authors affiliated jointly to private and research institutions jumps up to almost 20%.

Free assets and services in international ‘trade’

Identifying the institutions where assets are produced is an important aspect of the System of National Accounts, and so too is whether the services provided by those assets are used abroad (imported and exported).

Looking at the geography of R package development, almost 40% of the top 1,000 most downloaded authors (who, again, represent about 90% of all downloads) are currently US residents, followed by Germany (10%), the United Kingdom (7%), Canada and France (both 5%). The centrality of US authors is even more accentuated when packages are weighted by downloads: US authors make up 57% of downloads, followed by Switzerland (6%), Austria and the United Kingdom (5%), and Germany (4%).

Figure 2 shows the difference between countries’ shares of package authorship (weighted by downloads) and the proportion of packages downloaded by users in these countries, for the top and bottom 10 countries. The graph shows that the main net contributors (surplus countries) are the US, Austria, Switzerland and New Zealand. The main net “consumers” (deficit countries) are China, India, Japan, Korea and Brazil. The latter pattern suggests that emerging economies may be benefitting significantly from the availability of easily-downloadable free software, and provides some insights on the scale of knowledge spillovers within OECD countries and between OECD and emerging countries. France and Germany also appear among the highest net “consumers” of packages, at the same time as being some of the top producers.

Limitations and further research

The findings presented rely on downloads being an accurate measure of package importance. However, downloading a package does not necessarily reflect how frequently it is used. Direct analysis of code scripts, for instance using GitHub data, may provide a different metric of package popularity. In addition, these findings may not reflect patterns in other coding languages. For instance, the importance of New Zealand is likely to be at least in part the result of R having been developed in New Zealand originally; other languages may have different geographical specificities. As such, more research is needed on other coding languages to better understand innovation patterns in open-source software.

1. Kaggle is an online platform that runs statistical prediction and analysis competitions. See the full survey here: www.kaggle.com/surveys/2017
4. RStudio, Inc. is a private company which produces open source software for R, including RStudio, the most popular environment for using R.
Foreign direct investment (FDI) is an important channel for exchanging capital, goods, services, and knowledge across countries. Assessing the trends in FDI is therefore important for understanding the pace and extent of globalisation.

The OECD tracks and analyses the latest developments in FDI globally and within OECD and G20 economies. The analysis and accompanying data are published every 6 months in FDI in Figures (www.oecd.org/investment/statistics.htm). Each issue also includes analyses that use the OECD’s comprehensive FDI statistics by partner country and by industry for OECD countries. This enables, for example, examination of the role FDI plays in diversifying the host economy by comparing the sectoral distribution of inward FDI to the sectoral distribution of the economy as a whole. The April 2018 (www.oecd.org/daf/investment-policy/FDI-in-Figures-April-2018.pdf) issue contains a special focus on inward FDI by ultimate investing country (UIC), a dataset unique to the OECD. In the past, FDI flows have always been presented by immediate investing country, but presentation by UIC shows the country of the investor who controls the investment, reaps the rewards, and bears the risks. Analysis of these data reveal that countries like Luxembourg and the Netherlands become smaller investors than indicated by standard statistics, while countries like the United States, Germany, and Canada become larger investors (Figure 1).

Presentation by UIC also identifies the share of “round-tripping” in FDI, i.e. when funds that have been channeled abroad by resident investors are returned to the domestic economy in the form of FDI. Round-tripping is of interest because it does not yield the benefits normally associated with FDI and may indicate problems in a country’s investment policy regime. For example, some economies have controls on capital movements or exchange rates that may lead domestic investors to round-trip to have more flexibility in managing their capital. While round-tripping was present in every country examined, it is not significant in most, and accounts for less than 5% of inward investment.

The April 2018 issue also touches upon developments in the shares of global GDP, inward FDI, and outward FDI of OECD and G20 countries since the start of the global financial crisis. Most OECD countries accounted for a smaller share of global GDP in 2017 than they had in 2007, while some of the non-OECD members of the G20 accounted for a larger share as they have grown more quickly. Given the diverging rates of growth between OECD countries and these emerging economies, it is not surprising that the latter saw an increase in their share of global inward FDI stocks while shares decreased in most OECD countries. Some of the non-OECD G20 countries also became larger outward investors, particularly China, while, once again, the share of global outward FDI decreased for most OECD countries. Despite these changes, most OECD countries still account for larger shares of inward and outward FDI than of GDP, indicating that they remain among the more financially integrated economies in the world.

Source: OECD Foreign Direct Investment Analysis and Data www.oecd.org/investment/statistics.htm
The Challenges of Globalisation in the Measurement of National Accounts

“The Challenges of Globalisation in the Measurement of National Accounts” – organised by the Conference on Research in Income and Wealth (CRIW) and held in Washington DC 9-10 March 2018 – provided a forum for economists, data providers and data analysts to present research on more meaningful national and multinational measurement in the face of growing globalisation of economic activities.

The System of National Accounts 2008, the international standard for compiling national accounts, focuses on economic units that are resident in a particular economic territory. Multinational enterprises are, by contrast, generally organised as conglomerates in which a parent corporation controls chains of subsidiaries that are resident in many different countries. Such enterprises actively locate their resources, including inherently mobile knowledge-based capital such as R&D, and organise the provision of corporate services so as to increase the value of the enterprise.

These locational decisions do not necessarily correspond to what one considers as the location of production from an economic substance point of view. They often lead to intra-company transactions and pricing that are motivated more by taxation and regulation than by economic incentives. Consequently, the allocation of value added across countries may in turn be distorted. In addition, the rapidly changing nature of global production arrangements has given rise to new types of producers (e.g. “factoryless goods producers”). Together these phenomena may create varieties of “offshoring bias” in conventional calculations of GDP, productivity, and their sectoral decomposition.

Papers presented at the conference amongst others address the following issues:

• expanding the set of measures available for analysing trade and investment flows, global value added chains, and the impact of outsourcing;
• conceptual and measurement work that uses disaggregated data along with appropriate methods of aggregation to develop better and internationally comparable measures of multinational economic activity; and
• the development of measures and methods that allow us to disentangle distortions created by the organisation and tax structure of multinational enterprises, to better understand the real economic changes that are occurring under the surface of these entities.

The conference papers can be found at: http://conference.nber.org/confer/2018/CRIWs18/summary.html.

The meeting was organised by Nadim Ahmad, OECD; Brent Moulton, former Bureau of Economic Analysis; Research Associate J. David Richardson, Syracuse University; and Peter van de Ven, OECD.

2nd OECD Regional-Global TIVA Initiatives Workshop

Recent years have seen a significant take-up in international efforts to develop measures of Trade in Value Added, driven by growing demands for better, more comprehensive, and more timely data on global value chains, their drivers and impacts. Examples of initiatives include OECD-WTO TIVA, Eurostat’s FIGARO, North American TIVA, APEC TIVA, WIOD, Regional IO tables for Latin America co-ordinated by CEPAL, and many others.

A key challenge in this respect is to capitalise on the various initiatives to arrive at a single consistent internationally-recognised benchmark data set of TIVA and underlying global and regional supply-use and input-output tables, which was the purpose of the OECD workshop on Regional-Global TIVA Initiatives.

At this second annual meeting of the leading players in the field, held at the OECD in Paris on 7-8 June 2018, representatives from each initiative reiterated their support for the overarching principle of developing consistent estimates and agreed to continue to work towards a harmonised set of input data and methods for compiling regional and global inter-country supply-use and input-output tables, supported by the creation of a Global Data Hub for the exchange of national supply-use tables, bilateral trade data, and corresponding metadata. The Group also supported the creation of a handbook for developing global supply-use tables that would provide best practice, but also as a tool for users and for data producers to understand the compilation process, assumptions used, methodology and adjustments made to original data sources. More information is available at: www.oecd.org/sdd/its/regional-global-tiva.
OECD Employment Outlook 2018

Economic growth is picking up and unemployment has reached record lows in some OECD countries but wages continue to stagnate. Unless countries can break this cycle, public belief in the recovery will be undermined and labour market inequality will widen, according to this new OECD report.

The OECD Employment Outlook 2018 says that the employment rate for people aged 15-74 in the OECD area reached 61.7% in the OECD area at the end of 2017. For the first time there are more people with a job today than before the crisis. The employment rate in the OECD is expected to reach 62.1% by the end of this year and 62.5% in the fourth quarter of 2019. Some of the strongest improvements occurred among disadvantaged groups, such as older workers, mothers with young children, youth and immigrants.


OECD-FAO Agricultural Outlook 2018-2027

Global agricultural production is growing steadily across most commodities, reaching record levels in 2017 for most cereals, meat types, dairy products and fish, while cereal stock levels have climbed to all-time highs, according to an annual report from the OECD and the UN Food and Agriculture Organisation (FAO). The report stresses that agricultural trade plays an important role in promoting food security, underscoring the need for an enabling trade policy environment.

OECD-FAO Agricultural Outlook 2018-2027 sees weakening growth in global demand for agricultural commodities and food, while anticipating continuing productivity improvements in the sector. As a result, prices of main agricultural commodities are expected to remain low for the coming decade.

www.agri-outlook.org/

International Migration Outlook 2018

Migration flows to OECD countries have dropped slightly for the first time since 2011, with around 5 million new permanent migrants in 2017, down from 5.3 million in 2016. This trend is mainly due to a significant decrease in humanitarian migration as a result of the decline in new asylum applications, with 1.2 million applications in 2017 compared to 1.6 million in 2016, according to this new OECD report.

The 2018 International Migration Outlook says only about half of asylum applications are now registered in Europe, while a very large increase has been recorded in the United States (+ 26%), Australia (+ 29%) and Canada (+ 112%). OECD member countries currently host around 6.4 million refugees, more than half of whom are in Turkey. The top three countries from which asylum seekers have come are Afghanistan, Syria and Iraq.

www.oecd.org/migration/mig/international-migration-outlook-1999124x.htm
# Forthcoming meetings

Unless otherwise indicated attendance at OECD meetings and working parties is by invitation only.

## OECD

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## Other meetings

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