Re-engineering the Japanese Statistical System
by the Ministry of Internal Affairs and Communications of Japan

Be a Part of the Future ABS: Collaborating with the Public to Enhance the Future of ABS Online
by the Australian Bureau of Statistics

A Long-Standing Statistical Cooperation Program with China
by Statistics Canada
The Statistics Newsletter is published by the OECD Statistics Directorate.

This issue and previous issues can be downloaded from the OECD website: www.oecd.org/std/statisticsnewsletter

Editor-in-Chief: Martine Durand
Editor: David Brackfield
Editorial and technical support: Sonia Primot

For further information contact: the Editor, the Statistics Newsletter, std.statnews@oecd.org

Readers are invited to send their articles or comments to the email address above.

Deadline for articles for the next issue: 30th November 2012
The Japanese statistical system is highly decentralised, and the Director-General for Statistical Standards (DGSS) of the Ministry of Internal Affairs and Communications (MIC) is responsible for coordinating statistical activities. Some quality assurance processes have been carried out mainly through the examination of statistical surveys by the DGSS of the MIC for over 60 years, and now comprehensive measures for quality assurance have been promoted through the full revision of the Statistics Act in 2007 and development of the Master Plan pursuant to the act. This article introduces the re-engineering of the Japanese statistical system in terms of quality assurance.

Overview of the Japanese Statistical System

The Japanese statistical system is highly decentralised; Outline of Japanese Official Statistics, www.stat.go.jp/english/index/outline/contents.htm. There are 10 primary ministries producing statistics (see Figure 1). The ministries produce and disseminate statistics for their own policy purposes and there is not a single budget for statistics in Japan.

In Japan, the DGSS of the MIC has the responsibility for coordinating the policies, surveys, budgets and standards under the decentralised system so as to maintain and improve the total quality of official statistics. The DGSS of the MIC has the following functions, based on the Statistics Act (Act No. 53 of 2007) and other legislation. These functions essentially have resided in the MIC for over 60 years:

1. Planning and promotion of basic statistical matters
2. Examination and coordination of statistical surveys
3. Establishment and revision of statistical standards
4. Coordination of international statistical activities

The Examination of Statistical Surveys

The examination of statistical surveys is a key tool for coordination, because the ministries shall, when intending to conduct a statistical survey, submit their plans to the MIC, undergo the examination and obtain approval from the MIC in advance. This examination has been performed since 1947, and it has played an important role in quality assurance of official statistics in Japan. The DGSS of the MIC examines survey plans of the ministries to ensure quality of surveys as well as to reduce the burden on survey respondents by eliminating duplication. In addition, the DGSS of the MIC furnishes the financial authority with opinions on statistical activities so that the opinion is reflected on the budget, if necessary.

Figure 1. The Japanese statistical system

(1) Ministry of Justice; (2) Ministry of Finance; (3) Ministry of Education, Culture, Sports, Science and Technology; (4) Ministry of Health, Labour and Welfare; (5) Ministry of Agriculture, Forestry and Fisheries; (6) Ministry of Economy, Trade and Industry; (7) Ministry of Land, Infrastructure Transport and Tourism; and (8) Ministry of Environment
Examples of points to be checked in the examination are as follows: Need for Surveys, Respondents, Questionnaire, Methodology, Dissemination, Standards to be Used, and Preservation of the Statistical Data.

The DGSS of the MIC compiled a manual that includes the points and ensured that the statistical ministries were notified of its existence. The points are compatible with the lines of the National Quality Assurance Framework (NQAF) for which the template was approved by the United Nations Statistical Commission in 2012.

The examination by the DGSS of the MIC is equivalent to audits in the NQAF, and it has a beneficial effect on quality assurance of official statistics.

The Full Revision of the Statistics Act

In 2007, in order to respond to the changing industrial structure and survey environments, the Japanese Statistics Act was thoroughly revised.

Fundamental Principles

The fundamental principles of the new Statistics Act are related to the quality of official statistics (Article 3). In sum, they are as follows:

- Production of official statistics with appropriate and reasonable methodologies
- Provision of official statistics on a wide scale for the public
- Protection of confidential information collected for producing official statistics

These principles are compatible with the “Fundamental Principles of Official Statistics” adopted by the UN Statistical Commission in 1994 and the philosophy of the NQAF. They assure impartiality and objectivity, accessibility, and statistical confidentiality, respectively.

Establishment of the Master Plan

The act provides that a five-year Master Plan Concerning the Development of Official Statistics be established through consensus of all the ministers (a Cabinet decision) to ensure comprehensive and systematic developments of statistics by the government as a whole. Under the act, the MIC draws up the draft, and each fiscal year compiles the enforcement status of the act including the implementation of the Master Plan, publicizes the outline, and reports it to the Statistics Commission (a third party organisation to conduct neutral, fair and specialised research and deliberation). The Commission may evaluate the progress and give advice to each statistical ministry if necessary (Articles 4 and 55). This mechanism is a kind of PDCA (Plan - Do - Check - Act) cycle (see Figure 2). This enhances coordination.

The act also prescribes that the government shall revise the Master Plan approximately every five years, taking into account the changes in socioeconomic circumstances concerning statistics, based on evaluation of the effects of measures taken for the development of official statistics.

Other New Provisions of the Act

The following provisions were also stipulated newly in the act:

- Publication of release calendars and methods of dissemination: The act stipulates obligations not only to disseminate statistics, which had been specified by the former act, but also to publicize the date and methods of dissemination of fundamental statistics, which are designed as important statistics, through the Internet, etc. in advance (Articles 8 and 23). This assures punctuality and accessibility. To give an example, the Statistics Bureau of the MIC would release main statistics such as unemployment rates and CPI to the public exactly in accordance with the schedule of the advance release calendar, which the Bureau disseminates about two months before the beginning of every fiscal year.

- Establishment of Statistical Standards: The MIC shall establish statistical standards after hearing the opinions of
Measures in the Master Plan

The 2009 Master Plan

The Master Plan was newly introduced on the occasion of the revision of the Statistics Act in 2007 as part of the scheme of enhancing coordination. Since the Master Plan is established through consensus of all the ministers, all ministries and all administrative record information are to be subject to the Master Plan. After deliberation of the Statistics Commission for one-and-a-half years and consultation with the general public through Public Comments, the Master Plan was established for the first time in 2009.

Measures concerning Quality Assurance in the Master Plan

The Master Plan describes the following concrete measures directly concerned with quality assurance:

1. Formulation of guidelines for conducting self-evaluations on the quality of statistics and systematic implementation of self-evaluations of the statistics by each ministry based on the guidelines.

2. Setting the scope and process for sharing statistical information before its publication.

The statistical ministries have carried out various approaches for sharing and providing statistical data in an integrated manner and indicating the statistical quality, pursuant to the Plan for Operations and System Optimization of Statistical Survey Operations, etc. (decision made at a liaison meeting among chief information officers of each ministry in 2006). On the other hand, since some quality assurance processes had been carried out substantially through the examination by the DGSS of the MIC, each ministry had not implemented systematic self-evaluations for all of its statistics.

With this kind of situation as the context, the DGSS of the MIC, in collaboration with the ministries, formulated guidelines and the methodological manual for quality assurance of official statistics, applicable to all the ministries.

The working group, which consists of the representatives of the statistical ministries, was established on the initiative of the DGSS of the MIC in December 2009. The Central Bank and experts also participate in the working group as observers. The group met five times and after further consultation via email the working group compiled the guidelines in March 2010. These can be found here: www.stat.go.jp/english/index/seido/pdf/qa_gl.pdf

Even after the guidelines were completed, the members are still continuing to exchange information about the approaches for quality assurance and deliberating on issues arising in the implementation of measures in the guidelines. So far, the working group has held 10 formal meetings. In the course of deliberation, the working group revised the guidelines and compiled the methodological manual in April 2011. The guidelines will be reviewed based on results of measures taken by the ministries and those of research conducted through applying ISO20252 by a related academic society.

The guidelines assume that the quality of the official statistics is determined by eight elements and regard these elements as the indexes of quality indication and quality evaluation. The guidelines set up relevance, accuracy, timeliness and interpretability/clarity, which are adopted by a lot of countries and the international institutions, as “major elements”; and integrity, coherence/comparability, accessibility and effectiveness as “supplementary elements”. The manual includes a checklist compatible with the points to be checked in the examination of statistical surveys.

Furthermore, the guidelines focus on the quality indication and the self-evaluations on statistical productions. The guidelines also specified that the ministries draw up the execution plans for quality assurance of their statistics, and try to disseminate the summaries and carry out self-evaluations based on their plans.

One of the statistical ministries is considering evaluating statistics by six-grades in which they calculate the total score of each survey by giving quantitative scores to the terms in the checklist for quality assurance respectively.
The only way to truly understand what your customers want is by simply asking them and providing them with an accessible platform to tell you - that is how ABS betaWorks™ came to fruition.

Through harnessing the power of blogs and web 2.0 technologies, the Australian Bureau of Statistics (ABS) created betaWorks as a cost effective communication tool and ‘sandpit’ environment to gain customer insight, feedback and intelligence on potential in-house web design and development innovations for improving the ABS experience for its customers.

Customer insight is a process that starts with an organisation knowing and understanding what its customers want through the gathering of Market Intelligence (internally and externally), applying this knowledge in the development or refinement of its products and services and measuring success through a range of feedback mechanisms.

Launched in 2009 by the Customer Insights & Strategies Section, betaWorks is an open invitation to the Australian and greater online community to assist the ABS with identifying, prioritising and developing fresh web design concepts and enhancements for the ABS website. BetaWorks is based on the current ‘Labs’ model used by leading technology companies such as Google, Adobe, Microsoft and Yahoo! and has deliberately been given a different look and feel to the current ABS website to ensure it is clearly identifiable as being separate from the mainstream web environment. Built upon the Lotus Domino blog platform, it uses the latest web technologies HTML5 and CSS3, and is crafted to cater for different screen layout environments with responsive web design in mind.

The projects range from improvements to existing ABS web pages, testing out new web page designs using the latest web technologies and standards, data visualisation tools/widgets created with Adobe Flex, Flash, SVG and JavaScript, infographics and other visual communication methods available. The concepts and ideas on betaWorks are intended to make numbers, figures, data and statistics accessible for all, engaging and educational, as well as encouraging statistical literacy.
βetaWorks is used to qualitatively measure the community’s reaction on each project as well as understand the usability of prototypes, or lack thereof, by how customers respond and interact with new functionality. Mock-ups, prototypes and concepts are posted to βetaWorks to identify strengths and weaknesses in each project and to gather customer input and feedback early on in the design and development phase. Positive customer feedback results in the project’s progression and a more negative response will either help address the issues identified or halt further development until the need or technology changes. The feedback is used to realign concept priorities and validate future directions of online communication of statistics based on the needs of the community. Early involvement by customers significantly reduces the remediation of concepts and misalignment of customer needs following a production release.

One of the first projects that successfully graduated from βetaWorks to the ABS website is the ever popular Animated Population Pyramid (www.abs.gov.au/websitedbs/d3310114.nsf/home) Population Pyramid - Australia. The original concept of animated population pyramids was created by the United Kingdom Office for National Statistics (UK ONS) and was adopted by the ABS in its first version using Scalable Vector Graphics (SVG) technology. In August 2009, future support for SVG technology in the internet browser environment would be ceased, consequently having seen an alternate version developed by Statistics Netherlands, the Web Futures Design team collaborated with Statistics Netherlands on enhancing their population pyramid source code developed in Adobe Flex which allowed the ABS to update their own version. The new version made improvements to the portability of the project files and reduced maintenance for internal staff. The project received an overwhelming response that was used to refine the prototype and the valuable comments served as a catalyst for releasing Phase 2 to βetaWorks. The final ABS Animated Population Pyramid was released December 2009 on the ABS website and is now one of the most popular and used data visualisation tools available on the site. With attribution given to the UK ONS, ABS has since shared the Animated Population Pyramid with various State government departments and other international Statistical Organisations, advancing ABS’ national and international collaborative efforts. Although internal stakeholder consultation determines the final outputs and outcomes of each project, it is the valuable input from the external community that helps shape and polish the final product, as ABS can fix any issues and fill in any gaps early on in the process.

Other projects that have graduated from βetaWorks include the House Price Index Median House Prices and Australian Population Projections using Google Motion Charts; Australian Historical Population and Tourist Accommodation - Room

Figure 1. Animated Population Pyramid

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>22,923,933</td>
<td>11,092,615</td>
<td>11,224,318</td>
</tr>
</tbody>
</table>

Select a state or territory

Australia

Use the Drop Down List to select a state or territory population pyramid.

Selected details

Highlight your mouse over the chart to see the information below.

Aged: Born

Males

Females

Sex Ratio (Males per 100 Females)

Controls

Play Stop Reset Full Screen

Animation Speed: Fast Medium Slow

Source Data:

3101.0 - Australian Demographic Statistics
3222.0 - Population Projections, Australia, 2006 to 2101
provide comment on how the pages communicate the stories through the proposed layouts and interactive functionality, rather than the actual content itself.

With community input and support, the ABS also has an iPhone app “ABS Stats” which first appeared in betaWorks. The “ABS Stats” app allows easy access anytime and anywhere to key Australian statistics.

betaWorks has been dubbed the first site of its kind in the Australian Federal Government public arena and it upholds the Government 2.0 principles of open and transparent government operations.

Ultimately, this leads to ABS being more open and transparent about future website developments, increasing accessibility of ABS itself to the public, and in turn increasing public participation for refining ABS products and service delivery. For ABS' collaborating partners the strong development of concepts is now providing them with tools through which they can release their

A more recent example on betaWorks is the “Measures of Australia’s Progress 2013” (http://betaworks.abs.gov.au/betaworks/betaworks.nsf/dx/measures-of-australias-progress-2013.htm) website redesign project. Measures of Australia’s Progress (MAP) is a flagship ABS product which helps Australians address the question, “Is life in Australia getting better?” The brief for the Web Futures Design team was to develop a new website structure and functionality for the 2013 release. Three sample web page mock ups are currently available for comment and customers have been asked to

Figure 2. Animated Historical Population Chart

Figure 3. Measures of Australia’s Project 2013 Website mockup
In February 2013, Statistics Canada and the National Bureau of Statistics (NBS) of China will be completing the second phase of a long-standing cooperation program targeted at improving different components of the Chinese statistical system. This cooperation program, entitled “Statistical Information Management Program – phase II” or SIMP II, is jointly funded by the Canadian International Development Agency (CIDA) and the Chinese Ministry of Commerce (MOFCOM).

SIMP II has been by far the most ambitious and successful cooperation initiative ever undertaken by Statistics Canada. It can already claim several tangible and sustainable results, as recently confirmed by an independent monitor. The program covers three main projects:

- The Economic Statistics Project (with two components: survey and national accounts);
- The Social Statistics Project; and
- The Environment Statistics Project (with two components: survey and environmental accounts).

In addition, a smaller component is dedicated to organizational development, where NBS managers participate in study tours covering various aspects of the organization of a national statistical office (Table 1).

### Background

Statistics Canada’s contacts with the NBS go back to the early 1980s, when the Chief Statistician of Canada at the time, Mr. Martin Wilk, approached the Chinese delegation at a meeting in New York and indicated that he would welcome regular exchanges between the two statistical bureaus. The first activity took place in 1984, when Mr. Wilk visited China and met with representatives of central and provincial statistical bureaus.

A Chinese delegation returned the visit in 1985, at which time the two organisations signed a memorandum of understanding on cooperation. In subsequent years, between that initial visit and 1989, several Chinese delegations visited Statistics Canada.

### Table 1. SIMP II study tours topics

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2006</td>
<td>Statistics Canada structural organization (senior management)</td>
</tr>
<tr>
<td>July 2009</td>
<td>Household surveys and information and communication technology (senior management)</td>
</tr>
<tr>
<td>June 2011</td>
<td>Business survey framework</td>
</tr>
<tr>
<td>December 2011</td>
<td>Census of population</td>
</tr>
<tr>
<td>December 2011</td>
<td>Information technologies</td>
</tr>
<tr>
<td>February 2012</td>
<td>Business surveys and dissemination (senior management visit)</td>
</tr>
<tr>
<td>September 2012</td>
<td>Statistics Canada social programs</td>
</tr>
<tr>
<td>December 2012</td>
<td>Electronic collection methods in the context of a population census</td>
</tr>
</tbody>
</table>
Contacts resumed in November 1994 when Prime Minister Jean Chrétien visited China and signed letters of intent for six development cooperation projects. One of the projects was the Statistical Information Management Program (SIMP), which was carried out from 1996 to 2004 with joint funding from both countries.

The program covered national accounts and household surveys, as well as human and financial resources management. The results of the final program evaluation, conducted by an independent contractor hired by CIDA, were very positive. Both countries therefore decided to pursue the program and signed a contract in December 2005 for a second jointly funded phase, which would take place over a seven-year period. SIMP II was initiated with special emphasis being placed on the aspect of sustainability, ensuring that the NBS would have the required knowledge to implement the project results.

Program planning

Since the onset of economic reforms in the early 1980s, the NBS has endeavoured to adopt international statistical standards and concepts based on market economy principles. In pursuit of these standards, and in seeking to reform the functioning of the Chinese statistical system, the NBS sought and obtained technical assistance from a variety of multilateral and bilateral donors. In the planning of SIMP II, it was important to ensure that the program objectives would complement and not duplicate other technical assistance projects.

The following three major topics were identified as priorities for the NBS:

- Poverty measurement and household surveys;
- Business surveys and national accounts; and
- Environmental statistics and accounts.

Three seminars were conducted to assess the current state of development and the challenges faced by the NBS in the areas identified for inclusion in SIMP II. The seminar agendas were broadly set to provide an opportunity for NBS participants, a number of line ministries, provincial statistical bureaus, agencies, and academic and research institutions to present and describe ongoing work as well as data gaps and weaknesses.

Following the seminars, Statistics Canada and the NBS jointly developed and formalized plans for the activities to be pursued under SIMP II. As a result, three project implementation agreements were signed in early 2006. They included schedules with activities that allowed each project to be conducted in three phases. In the initial knowledge-sharing phase, Statistics Canada gave overviews of its programs, methods and best practices while the NBS shared information on the Chinese context. The core of the project activities took place during the second phase, at which time Statistics Canada provided hands-on support on technical and operational aspects of the development and carrying out of pilot surveys and the development of improved national and environmental accounts. Activities in the last phase focused on the analysis of the results of the pilot surveys and the pilot accounts in order to plan extension to a national implementation.

Conducting each project in phases ensured that approaches could be improved during the course of the project and that practices in place

<table>
<thead>
<tr>
<th>Location</th>
<th>Economic</th>
<th>Environment</th>
<th>Social</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Survey</td>
<td>Accounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>12</td>
<td>7</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Canada</td>
<td>9</td>
<td>4</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>11</td>
<td>20</td>
<td>22</td>
</tr>
</tbody>
</table>

Table 2. Number of SIMP II missions (January 2006 to February 2013)
at the NBS could evolve with the knowledge gradually acquired from Statistics Canada’s experts. The plans also specified that the principal means of providing guidance and assessing progress would be through missions alternately taking place in China and Canada (Table 2). Documentation activities were also explicitly included in the plan to further ensure the sustainability of the methods and approaches.

The Economic Statistics Project

The objective of the Economic Statistics Project was two-fold. The goal of the survey component was to improve the NBS’s economic statistics program by developing a general integrated framework for business surveys supported by a central business register. For the national accounts component, the objective was to improve the NBS’s economic statistics by developing and implementing techniques for the reconciliation of the annual and quarterly Gross Domestic Product (GDP) and Gross Domestic Expenditure (GDE) estimates.

The main activities for the survey component led to the development of a business register with functionalities that would allow it to be updated through three different mechanisms. The project also focused on developing and conducting two pilot surveys (refer to Table 3) to test integrated concepts and approaches that would serve as building blocks for a general integrated framework for business surveys.

The results of both pilot surveys were analyzed and led to the identification of four major components for the foundation of an integrated survey framework. These four components are: the use of a business register as a frame for all business surveys; the use of a common set of variables to collect financial data; the use of electronic reporting for data collection; and an automated processing system. The NBS is currently implementing these four major components with a deployment plan across different industries over the next three years.

For the national accounts component, activities included a review of the data sources and methods used to compile consistent production-based and expenditure-based GDP estimates. In addition to putting emphasis on methods to produce and analyze constant-price and current-price estimates, activities also focused on methods to reconcile, benchmark and seasonally adjust quarterly GDP and GDE estimates. A time series of pilot accounts was compiled using new methods and data sources; it is currently being refined and analyzed.

The Social Statistics Project

The objective of the Social Statistics Project was to enhance NBS’s social statistics program by developing an integrated urban/rural household survey covering a variety of topics including poverty, gender and migrant population.

The project’s main activity consisted in developing an integrated household pilot survey (Table 4). China currently has two separate household surveys, one for urban regions and another for rural areas, each with its own coverage, concepts and methods. The pilot survey served to assess the feasibility of an integrated approach and was conducted in four sites over a period of 15 months.

Since 2011, project activities focused on the review of the NBS national implementation plan for the new Integrated Household Survey (IHS). The China State Council recently approved funding for the IHS and the NBS is actively working on preparations for this survey, which is scheduled to be in the field in 2013.

Table 3. Economic pilot surveys sample size

<table>
<thead>
<tr>
<th>Pilot</th>
<th>Sampling Unit</th>
<th>Sample size by province</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beijing</td>
<td>Fujian (Xiamen)</td>
</tr>
<tr>
<td>1st pilot</td>
<td>Enterprises</td>
<td>1,312</td>
</tr>
<tr>
<td></td>
<td>Self-employed businesses</td>
<td>-</td>
</tr>
<tr>
<td>Total sample size – 1st pilot</td>
<td>1,312</td>
<td>-</td>
</tr>
<tr>
<td>2nd pilot</td>
<td>Enterprises</td>
<td>1,324</td>
</tr>
<tr>
<td></td>
<td>Self-employed businesses</td>
<td>-</td>
</tr>
<tr>
<td>Total sample size – 2nd pilot</td>
<td>1,324</td>
<td>1,442</td>
</tr>
</tbody>
</table>

Table 4. Social pilot survey sample size

<table>
<thead>
<tr>
<th>Province</th>
<th>Sample size* (dwellings)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beijing</td>
<td>1,000</td>
</tr>
<tr>
<td>Zhejiang</td>
<td>1,000</td>
</tr>
<tr>
<td>Henan</td>
<td>500</td>
</tr>
<tr>
<td>Sichuan</td>
<td>500</td>
</tr>
<tr>
<td>Total</td>
<td>3,000</td>
</tr>
</tbody>
</table>

* Approximate numbers
As the NBS needs to meet additional requirements to measure the growing migrant population, which has specific characteristics requiring special consideration, a component has been added to the Social Statistics Project. Activities for this component focus on developing complementary features for the IHS sampling plan to allow for proper measurement of rural migrant workers.

The Environment Statistics Project

For the Environment Statistics Project, the objective is to assist the NBS in enhancing its environment statistics program, which also involves creating and developing environmental accounts. Project outputs include the creation and development of an environmental accounting framework suited to China’s situation but also internationally comparable, and the implementation of specific accounts selected based on national priorities. The project was divided into two components, one focused on environmental accounts and the other on environmental surveys.

The main activities of the environmental accounts component included the development of an environmental accounting framework and the creation of specific environmental accounts of mineral resources, energy resources and pollution emissions. Guided by the framework, an analysis of data availability was undertaken to identify the main data gaps related to specific accounts. The environmental accounts were populated on a trial basis at the national level and for two provinces. The results are now being analyzed for publication consideration.

Two main activities were identified for the survey component. The first one was to build the Classification for Environmental Protection Activities in China (CEPAC). After several consultations with different ministries, the CEPAC was adopted in 2011 as the national standard for collecting environmental protection expenditure (EPE) data. The second main activity was to conduct a pilot survey (Table 5) to address one of the data gaps identified through the environmental accounts component. A survey on the municipal solid waste management industry was successfully conducted to measure its EPEs and to test part of the CEPAC. Recommendations are now being prepared to go forward with the accomplishments of this component.

Table 5. Environment pilot survey sample size

<table>
<thead>
<tr>
<th>Province</th>
<th>Sample size (Municipal waste management sites)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beijing</td>
<td>19</td>
</tr>
<tr>
<td>Jilin</td>
<td>49</td>
</tr>
<tr>
<td>Guangdong</td>
<td>33</td>
</tr>
<tr>
<td>Chongqing</td>
<td>35</td>
</tr>
<tr>
<td>Total</td>
<td>136</td>
</tr>
</tbody>
</table>

Key elements for successful cooperation

SIMP II is now completing its last year of operation and the success of the program has already been formally recognized by an independent monitor hired by CIDA.

Several elements have been identified as key features of this successful long-standing cooperation:

- A demand-driven approach to the selection of program activities complemented with careful and detailed planning;
- NBS’s strong ownership of the projects combined with the professionalism and experience of Statistics Canada’s experts;
- The program’s ability to adapt best practices to the Chinese context through the use of a “learning-by-doing approach”;
- A long-standing partnership that led to a relationship based on respect and trust, which helped the projects move forward when difficult challenges arose.

Future outlook

Given the success and the impact of the Statistical Information Management Program, both organizations are examining future opportunities to work together.
Financial asset prices have experienced significantly higher volatility in reaction to the ongoing financial and economic crisis. In the context of such market volatility, a measurement of market uncertainty and distribution of investors’ expectations as regards the future course of financial asset prices provide particularly valuable information for analytical purposes.

This article presents a quantitative technique recently developed and implemented by ECB staff for the purposes of assessing market participants’ expectations regarding future asset prices in the form of probability distributions drawing on option prices. This technique elaborates on an estimation of the probabilities attached by market participants to possible future outcomes for a specific asset price. The set of likely future outcomes and the attached probabilities define a density function. More specifically, this article shows how such density extractions from option prices can be applied to short-term interest rates and discusses the relevance of these findings and their information content for analytical purposes at the ECB.

In brief, the relevance of these probability density functions stems from their flexibility in using a range of options reflecting different leading market indicators. First, as the ECB aims to steer short-term money market interest rates, it has a key interest in monitoring the evolution of short-term interest rates and associated expectations. Second, stock prices reflect expected corporate earnings so that options on future stock prices can provide useful information for assessing investors’ expectations for economic activity. Furthermore, stock prices may – among other things – influence consumer spending via financial wealth and confidence effects. Ultimately, expectations regarding future stock market developments provide useful information about the risks and level of confidence in the market, as well as information about the outlook for both the economy and the financial market.

An Overview of Financial and Statistical Terminology

Options on futures are appropriate financial market instruments from which one can extract measures of uncertainty and distributions derived from them around central market expectations. A futures contract is defined as a standardised contract between two parties who agree, respectively, to buy and sell a fixed quantity of a specified asset of standardised quality on a predetermined date and at a pre-agreed price (known as the “futures price”). Furthermore, an option on a futures contract is defined as an instrument that entitles – but does not oblige – its owner to buy or sell a particular futures contract at a specific price on or before a certain expiry date. Options can be divided into two categories “calls” and “puts”. The former gives the holder the right to buy a given futures contract, whereas the latter grants the holder the right to sell it at a specific price.

The forward-looking nature of option prices makes options suitable for the extraction of expectations and the quantification of uncertainty. In particular, an option’s implied density function (PDF) offers greater insight into the changes expected by market participants in the value of an underlying asset than commonly used measures (such as futures) that capture only the market consensus as regards expectations.

Daily, hundreds of contracts are traded for a given option, however not all of these contracts are used for the estimation of the PDFs. In practice, only “out of the money” and “at the money” options are employed for the calculation of the PDFs as they are more liquid and are therefore more representative. The term “out of the money” refers to call and put options with a strike price higher and lower respectively than the current underlying futures price. While, the term “at the money” refers to options which the current forward price of the underlying asset is equal to the strike price of the option.

Another issue that rises with the estimation of the PDFs is the trading volume of contracts with respect to their expiration date. In general, the closer the expiry date of the option contract – i.e. the closer the “future” is to the present – the lower the degree of uncertainty about the possible outcome of the underlying future. Thus, the level of uncertainty embodied in the implied probability density also tends to decline as the expiry date approaches. Consequently, very little trading, if any, takes place on the days
immediately prior to the expiry date. More importantly, the resulting time pattern of a decreasing density width makes it misleading to compare implied densities relating to the same fixed expiry contract over time. A solution generally applied to allow the comparison of implied densities over time is to estimate “constant maturity implied probability density functions”.

Stock Market Expectations and Risks during the Financial Crisis

In this section, the option implied PDFs methodology will be applied to two financial crises in order to study the market uncertainty during these two periods. The first case is the Lehman Brothers episode in 2008 and the second is the three-year longer-term refinancing operations of the ECB in 2011 and 2012.

The Lehman Brothers Episode

The autumn of 2008 was especially tumultuous, but two events stand out: the failure of Lehman Brothers on 15 September and the internationally-coordinated monetary policy actions on the 8 October. Option-implied PDFs are a powerful tool for succinctly capturing how such events affect market participants’ views on the likely evolution of EURIBOR. They may also be used to assess the extent to which option prices anticipated such events.

The failure of Lehman Brothers led to material changes in the three-month-ahead EURIBOR distribution (Figure 1A). While there had been little movement in the PDF in the preceding week, EURIBOR option prices assigned a significantly greater weight to interest rate outturns much less than the prevailing forward rate. And that left-tail continued to grow. Stress in the cash markets increased markedly.

On 8 October, as part of an internationally-coordinated monetary policy action, the ECB announced that, from the operation settled on 15 October, the weekly main refinancing operations will be carried out through a fixed rate tender procedure with full allotment at the interest rate on the main refinancing operation, i.e. 3.75%. That rate was 50 basis points below the minimum bid rate affirmed at the previous Governing Council meeting on 2 October. An examination of the EURIBOR PDFs in the days leading up to that announcement and shortly afterwards reveals two interesting observations (Figure 1B). First, it appears as if the impact of both the 2 October Press Conference or the 8 October announcement on the option-implied EURIBOR distribution was small compared to that of the accumulation of news during the intervening days (in particular, over the weekend).

The fact that even by 7 October, the PDF had shifted so much to the left, and become more negatively skewed, suggests that market participants were already placing more weight on EURIBOR outturns in three months' time being much less than the current forward rate, even though the precise timing and details of the 8 October announcement took the market by surprise. The second interesting observation is that although the bulk of the implied three-month EURIBOR distribution continued to move towards lower interest rates, there was no movement in the tail of the distribution. One possible explanation is that, despite the unprecedented events of the preceding month, market participants still did not attach any weight to the possibility that EURIBOR would be 2% or less in three months’ time.

The impact of the longer-term refinancing operations on money markets

Another good example of the statistical and economical use of the PDFs took place between December 2011 and February 2012 where the Eurosystem’s three-year longer-term refinancing operations (LTROs)
targeted deficiencies in bank term funding markets.

To understand the extent to which the most recent non-standard measures (the three-year LTROs) have had an impact on market confidence, the statistical moments of the implied distributions for the three-month EURIBOR around the two LTROs are analysed.

Figure 2 shows the behaviour of the statistical moments of the EURIBOR three-month probability distributions around the LTRO dates. A decrease of the skewness indicates a tendency for market participants to expect future interest rates to be below the mean rather than above it; the lower kurtosis suggests that the likelihood that market participants attach to more extreme outcomes compared with outcomes at the centre of the density has declined. This is especially evident after the first LTRO, but seems to be less pronounced for the second LTRO.

Conclusions

This article has shown that market participants’ expectations and market uncertainty regarding the future course of financial asset prices represent a valuable source of information for economic and financial analysis. Moreover, their information content is of particular relevance in times of financial market tensions. The implied densities extracted from option prices help reflecting the uncertainty surrounding the market consensus view in a numerical manner, thereby allowing a more complete assessment of investors’ expectations. Daily implied probability density functions data are currently disseminated only internally within the ECB. More detailed information on the methodology for the calculation of the implied probability density function can be obtained by sending an e-mail to statistics@ecb.int.

SMDX

CONCLUSIONS FROM OECD SDMX EXPERTS MEETING,
PARIS 13TH - 14TH SEPTEMBER 2012

Trevor Fletcher, OECD Statistics Directorate

The OECD SDMX Experts Group met from 13-14 September at OECD headquarters in Paris and was attended by 70 experts from the field of SDMX. The experts mostly came from the National Statistics Offices (NSOs) of OECD member countries and Key Partner countries, in addition there were experts from a number of other International Organisations and experts from 4 commercial companies also attended.

This meeting of the Experts Group was the 6th since the inaugural event held in Paris in 2004. The goal of the Experts Group is to provide a forum for a network of IT specialists to present and discuss strategies for implementing SDMX-based data exchange mechanisms between international organisations and NSOs.

As a key member of the SDMX sponsor group since the start of initiative in 2001, the OECD positions SDMX as a key element of its data collection and exchange strategy. The OECD’s Statistics Directorate promotes the benefits of SDMX widely both throughout the organisation and among member countries. Together with the OECD’s Information Technology and Network Services division assistance is provided in the implementation of SDMX exchange programs.

The Experts Group is coordinated and aligned with other international bodies dealing with related topics such as the SDMX secretariat and sponsors group, the SDMX Statistical and Technical Working Groups, the High-level Group on Business Architecture for Statistics (HLG-BAS)
and the joint ECE/Eurostat/OECD meetings on Management of Statistical Information Systems (MSIS). All these groups see SDMX as a key component in the “industrialisation” of statistical processes.

The meeting was well attended and provided an important opportunity to gauge progress in the implementation of SDMX data exchange programs between the OECD, NSO, International Organisations and commercial interests. Overall a marked increase was noted in SDMX activity being carried out.

The meeting agenda (www.oecd.org/std/SDMX%20Group%2013_14%20September%20final%20agenda.pdf) gave opportunities for participants to describe progress in initiatives for implementing SDMX in several constituencies of the global SDMX community. This gave an indication of progress from a number of different perspectives which are described here.

**National Statistical Offices**

Member countries and Key Partner NSOs presented current progress of SDMX exchange programs. These reports were of great interest as they represent a real measure of progress in the uptake of SDMX among NSOs.

Statistics Korea and the Brazilian NSO (IBGE) described encouraging progress in their pilot projects to transmit Short-Term Economic Statistics (STES) data via SDMX to the OECD, and both noted that they were using this exercise as a catalyst to promote further such exchanges throughout their organisations and with other agencies.

The Italian NSO (ISTAT) demonstrated how SDMX is being used in several parts of the Generic Statistical Process Model (GSBPM) as part of a wide ranging strategy of SDMX implementation within their Statistics Office.

The Swiss NSO (Fédéral de la Statistique) presented a case-study on their metadata-based toolbox which will be made available for sharing via the SDMX Toolbox.

The presentation of recent developments in Mexico’s SDMX implementation by their NSO (INEGI) showed that they continue to be very advanced in the use of SDMX via a number of ambitious initiatives in data collection, publication and dissemination. SDMX is very much a “live” project in INEGI and the project’s success has been helped by strong institutional support throughout Mexico’s highly decentralised system.

The Federal State Statistics Service of the Russian Federation (Rosstat) described the status of implementation of the SDMX standard and was another example of using SDMX to help integration within in a decentralised system – in this case 64 state bodies are making data available in SDMX via a single portal (UNISIS).

**SDMX Sponsors**

From the SDMX Sponsors group the Bank of International Settlements (BIS) presented their work in building an SDMX data portal in the “cloud”. This software is freely available and has already been implemented in 14 Central Banks.

Eurostat updated the group on progress in establishing Global Data Structure Definitions (DSDs) in a number of domains (Fisheries, Balance of Payments, National Accounts, Research & Development, Education, Health and External Trade). The importance of setting up these DSDs was noted as well as the role the Global Registry will play in making this information easily available.

Eurostat also described work in progress on the SDMX Reference Infrastructure project (SDMX-RI). SDMX-RI is a set of reusable building blocks that allow NSOs to make their data available via SDMX. This is seen as a key instrument for enabling SDMX exchanges and has been widely adopted; other implementations underway or planned.

The OECD presented work on implementing SDMX throughout the OECD’s Statistical Information System (SIS) covering data capture and dissemination. Parts of the development work are shared by other members of the collaboration community, and of particular note is the work being undertaken by ISTAT to integrate SDMX-RI within the OECD.Stat data warehouse system as a means of mapping OECD data to Global DSDs.

Also, work was described on the progress in the SDMX data exchange pilot program using Short-Term Economic Statistics. OECD member countries were invited to participate in this exercise in 2011 and more than 20 countries are now participating in this exercise. It was noted that such implementation requires significant investment in resources from NSOs and the difficulties were recognised in the context of the current financial crisis. The case study outlined progress and the various challenges faced by both the OECD and the NSOs.

**Developing Countries**

SDMX implementation in developing countries was shown in a presentation by DevInfo, a company that has been working with UNSD to deploy a system whereby development data is transmitted in
SDMX. The project demonstrated an interesting counterpoint to the SDMX-RI approach.

**SDMX Secretariat**

The SDMX Secretariat representative from Eurostat presented the draft proposal for governance of commonly used SDMX artifacts. This reiterated the need for governance within the SDMX community and outlined the proposed governance structure; feedback on the proposal was requested by the Experts group.

**Commercial Companies**

The Experts group was pleased to have representations from 4 commercial companies, a positive indicator of the increased uptake of SDMX in this sector.

Sungard showed how SDMX has been integrated into its FAME Statistical Data Exchange Platform and described how the SDMX data model can underpin statistical production processes.

Space-Time Research described how a number of tools in its SuperStar suite allow for off-the-shelf desktop SDMX production.

Both Metadata Technology and Business Intelligence Accelerator GmbH (BIA) presented Excel-based interfaces for presenting SDMX. Metadata Technology demonstrated how its Fusion Grid product could be connected to any registry and be used as a global data viewer. BIA also showed how SDMX can be used within a Business Intelligence system.

SDMX Technical Working Group and Statistical Working Group

A session of the meeting was devoted to reports from the SDMX Technical Standards Group (TWG) and Statistical Working Group (SWG). These two groups were established after the SDMX Global conference in 2011 with the aim of increasing and formalising the participation of the SDMX User Community (NSOs, Central Banks, International Organisations and others) in the management and development of the SDMX Technical Standards and the SDMX Content Oriented Guidelines.

This session provided an update on the very important work currently underway in defining global DSDs for Balance of Payments and National Accounts, and also the key task, highlighted at the last Global Conference, of establishing an SDMX Global Registry.

**High-Level Group on the Business Architecture of Statistics**

The High-Level Group on the Business Architecture of Statistics (HLG-BAS) was represented by the participant from the Australian Bureau of Statistics (ABS) and covered the Generic Statistics Information Model (GSIM), SDMX and the standards-based modernisation of official statistics. This looked at the role of SDMX in the wider world of statistical processing along with a number of other standards, and described how such standards are being used to “industrialise” the process as the statistical community seeks to modernise in the face of new challenges from unofficial data sources.

**Next Meeting**

Statistics Korea kindly offered to host the 2014 SDMX Experts meeting.

All presentations can be found at www.oecd.org/std/SDMX%20Expert%20Group%202013_14%20September%20final%20agenda.pdf.

---

**NTTS 2013**

5-7 March 2013, Brussels

**Call for papers**

NTTS (New Techniques and Technologies for Statistics) is a biannual international scientific conference on the impact of new technologies on statistical collection, production and dissemination systems.

The purpose of the conference is to stimulate and facilitate the preparation of new innovative projects, to encourage co-operation and possible building of consortia by researchers with the aim of enhancing the quality and usefulness of official statistics and to prepare activities related to research in statistics within the next European Framework Programme for Research and Development (Horizon 2020).

The Scientific committee welcomes the submission of abstracts within all areas of relevance to the conference.

**Deadline for submission of abstracts:**

31 October 2012

For further details please consult: www.ntts2013.eu

For those that have submitted a paper to NTTS, it will also be possible to submit (a possibly revised version of) the same paper to the Journal of Official Statistics.

Submissions and inquiries can be directed to the guest editor team (ESTAT-NTTS@ec.europa.eu).

**Deadline for submissions:**

15 April 2013

---
The financial and economic crisis has underlined the importance of monitoring the financial activity and position of the various institutional sectors of OECD economies by using timely, frequent and comparable financial statistics.

To respond to the need highlighted by the crisis and expressed by users to better monitor financial activity and stock positions of the institutional sectors of OECD economies, and to provide them with relevant information necessary to analyse their behaviour and performance and carry out cross-country comparisons, the OECD’s Statistics Directorate has built a set of macro-financial indicators, based on the financial accounts and financial balance sheets as provided by member countries.

The OECD Financial Dashboard, available in the OECD online statistical warehouse OECD.Stat, (http://stats.oecd.org/) provides 41 financial indicators for OECD countries, with data being continuously updated and disseminated.

The OECD Financial Dashboard is divided into two main groups:

- **Stocks** (http://stats.oecd.org/Index.aspx?DataSetCode=FIN_IND_FBS) - thirty-three financial balance sheets indicators considered as relevant to analyse the performance of the various institutional sectors.

In order to focus on the behaviour of specific sectors, the OECD Financial Dashboard is being progressively extended to both indicators based on non-financial accounts and on financial datasets such as the assets and liabilities of households and institutional investors’ assets.

It is also envisaged to enhance the relevance of the Dashboard by calculating financial indicators on a quarterly basis. This will increase frequency and timeliness of indicators.

Each indicator, as viewed in the OECD statistical warehouse OECD.Stat, includes:

1. A statistical table with all OECD countries including data from 1995 to the latest period available (2011 currently); and,
2. Metadata composed of a detailed definition of the indicator (consistent with the 1993 System of National Accounts), a brief explanation of what the indicator measures, a formula of how the indicator (ratio) is calculated (numerator and denominator - with links to these variables) and the sources of the underlying data.

The new Financial Statistics home page (www.oecd.org/std/financialstatistics) of the OECD’s Statistics Directorate website presents a financial indicator from the OECD Financial Dashboard. The indicator is presented in graphical form and accompanied by text highlighting its recent trends.

**An Example: Household Leverage Ratio**

Households and non-profit institutions serving households (NPISHS) debt, as a percentage of Gross Disposable Income (GDI) is defined as the household leverage ratio. The ratio measures the indebtedness of households in relation to their spending and saving capacity. An increase in debt may contribute to inflationary pressure in the medium term. High indebtedness levels generally increase the financing costs of the borrower, deteriorate balance sheet positions and may restrict access to new financing.

**Definition**

Debt is a commonly used concept, defined as a specific subset of liabilities identified according to the types of financial instruments included or excluded. Generally, debt is defined as all liabilities that require payment or payments of interest or principal by the debtor to the creditor at a date or dates in the future.

Consequently, all debt instruments are liabilities, but some liabilities such as shares, equity and financial derivatives are not considered as debt. Debt is thus obtained as the sum of the following liability categories (according to the 1993 System of National Accounts), whenever available/applicable in the financial...
balance sheet of the households and NPISHs sector: currency and deposits; securities other than shares, except financial derivatives; loans; insurance technical reserves; and other accounts payable.

For the households sector, liabilities predominantly consist of loans, and more particularly mortgage loans for the purchase of houses.

Recent trends
Households remain highly indebted in a large number of advanced economies. In 2011, the ratio of household debt to gross disposable income is far above the OECD average in Denmark, the Netherlands, Ireland (2010 data) and Norway, respectively 301.9%, 280.5%, 217.8%, and 199.7%. On the other hand, Mexico has the lowest debt ratio with 9.4% (2009 data).

The level of household debt, as a percentage of GDI, rose in most OECD countries over the period 2007-2011 with the Netherlands and Korea recording the largest increases (respectively 38 and 17 percentage points). In counter to this, a net fall was observed in the United States (minus 19 percentage points).

Long-term loans, mainly consisting of mortgage loans, remain the largest component of household debt, contributing more than 80% of the total household debt in twenty OECD countries and even more than 90% in nine countries. The highest level was recorded in Luxembourg (96% in 2011) and the lowest ratios were observed in Italy (70% in 2011) and in the Slovak Republic (60% in 2010).

Figure 1. Household debt
Debt of households and non-profit institutions serving households, as a percentage of gross disposable income

MOFCOM-WTO-UNCTAD-OECD CONFERENCE, BEIJING

GLOBAL VALUE CHAINS IN THE 21ST CENTURY: POLICY IMPLICATIONS ON TRADE, INVESTMENT, STATISTICS AND DEVELOPING COUNTRIES - 19TH-20TH SEPTEMBER 2012

Nadim Ahmad, OECD Statistics Directorate

In collaboration with partner international organisations and the Chinese Ministry of Commerce the OECD organised a high-level conference, attended by the Secretary General of the OECD, his counterparts in the WTO and UNCTAD, and many high-level officials from China, including the Chinese Vice Premier H.E. Mr. Wang Qishan. Close to 1000 participants from over 100 countries attended over the two days.

The Conference set out to highlight the growing importance of global value chains and the role of multinational corporations in today’s integrated economies, and set out to answer three key questions:

• What is the impact of global value chains on trade and investment policies?
• How can we find a new trade narrative to better explain trade?
• What are the domestic ingredients needed to ensure global value chains translate into growth, jobs, development and poverty alleviation?

It was structured around three core themes (Measurement; Global Value Chains - the implication on Trade policies; and Global Value Chains - the impact on investment policies) and, of relevance to the Statistical Community, it provided an opportunity for the OECD to publicise its joint initiative with the WTO on Measuring Trade in Value-Added (www.oecd.org/trade/valueadded). The initiative is an essential response to the increasing fragmentation of production that has accelerated in recent decades as the costs of doing business abroad have fallen and globalisation continues apace. Conventional measures of trade, which are measured on a gross basis, are ill equipped to inform
these developments and to provide policy makers with the evidence they require to formulate sound policy making. In fact gross measures may very well mislead and lead to the adoption of policies that may be counterproductive.

The initiative aims to provide this evidence. By looking at flows of trade on a value-added basis, it is possible to construct new indicators that reveal how consumption in one country ripples through the value-chain to stimulate production in upstream economies. The work goes beyond looking solely at this dimension of trade policy however, it also provides a more accurate picture of revealed comparative advantages of different sectors in economies and forms an essential tool to better understand competitiveness, in particular the increases in competitiveness that can be gained through efficient international sourcing of goods and services. It can also reveal the important contribution made by knowledge based assets and services to export growth, the role of emerging economies in global value chains, and provides an indication of the sensitivity of global supply chains to systemic risks such as natural catastrophes. It reveals the benefits of trade liberalisation, and in addition the hidden costs of protectionist policies. But it is also possible to translate these flows into jobs and skills, which forms part of the OECD’s work plan going forward, allowing us to look at a world where it is as much about trade in tasks as it is trade in products.

Providing this evidence requires the development of a new type of statistical information system; a system that brings together and links official national statistics under an international umbrella. The key building blocks in this context are national input-output tables; blocks, collected by the OECD as part of its Structural Analysis Input-Output database, which are combined by the OECD for a global perspective using its Bilateral Trade Statistics by End Use database.

The OECD, with two decades of experience in the compilation and use of IO tables, is ideally placed to provide this umbrella and has committed significant resources to developing this system: it has already begun working with a number of agencies with expertise in the area such as the USITC and Japan’s IDE-JETRO and has also created a technical group of international experts to advise on the work going forward, and is making maximum use of its networks to motivate the development of improved statistics particularly in trade in services and the development of indicators that reveal the cost structure (and inputs) of importing and exporting firms (and their owners). Links are also being developed in other areas where the OECD is able to capitalise on its expertise for example foreign affiliate trade statistics, FDI statistics, productivity and knowledge based assets.

The OECD and WTO plan to release the first results of this initiative in the middle of December 2012. The figure below provides a sample of the type of information that will become available through this initiative. It shows the foreign content of Chinese exports of electronic products in 1995 and 2009. Electronic products accounted for 35% of China’s total gross export growth over this period but a significant contribution to this growth reflects increasing imports of intermediates. In 1995 provisional estimates show that nearly one fifth of the value of Chinese exports of electronic goods reflected foreign content. By 2009 this had risen to one-third, with the increase being driven by most regions and industries providing the intermediate inputs. The total share provided by European industries for example increased by nearly 5%.

Why is this important? There are many reasons but to name only a few. The figure reveals that there is a significant difference between gross flows and value-added flows. For example the difference in growth between the two measures for Chinese electronic components alone amounts to about $US 100 billion. This can have a significant impact on bilateral trade positions, and so can potentially change the narrative around trade policy discussions. It also reveals that protectionist measures may be counter-productive with many upstream countries and producers being affected, including industries in the region or country adopting protectionist policies.

Figure 1. Foreign content of Chinese electronic goods broken down by origin, % of total value
OECD Internet Economy Outlook
The Internet is now a fundamental infrastructure supporting the economy and is firmly in its second stage of development, having evolved from a data network connecting PCs with wires to a much broader network of new portable devices from mobile phones to tablet computers. It is also on the cusp of a much larger expansion to objects that typically did not have communications capabilities: the “Internet of things” is projected to have more connections than the people using them. This raises many important socio-economic and political issues for stakeholders to consider, as economies and societies become increasingly inter-meshed.

www.oecd.org/sti/interneteconomy/ieoutlook.htm

Education at a Glance 2012
Governments should increase investment in early childhood programmes and maintain reasonable costs for higher education in order to reduce inequality, boost social mobility and improve people’s employment prospects, according to a new OECD report.

Education at a Glance 2012 reveals stark differences between countries in the opportunities they offer young people to enter higher education, notably for children of poor families or whose parents have had a limited education.

“Countries need an increasingly educated and skilled workforce to succeed in today’s knowledge economy,” said OECD Secretary-General Angel Gurría. “Investing from an early age is crucial to lay the foundations of later success. High quality education and skills have to be among the number one priorities for governments, for economies and for societies. Supporting the poorest and ensuring equal access is another important pillar in an inclusive education policy strategy.”

www.oecd.org/edu/eag2012.htm

Agricultural Policy Monitoring and Evaluation 2012: OECD Countries
Government support to agriculture in OECD countries fell to 19% of total farm receipts in 2011, a record low driven by developments in international commodity markets, rather than by explicit policy changes, according to the latest version of an annual OECD report.

Support to producers stood at $252 billion (EUR 182 billion) in OECD countries in 2011, confirming a longstanding trend toward falling farm support. While Agricultural Policy: Monitoring and Evaluation 2012 points to a generalised move away from support directly linked to production, it finds that support which distorts production and trade still represents about half of the total.

## Agenda

### Forthcoming Meetings

<table>
<thead>
<tr>
<th>Date</th>
<th>Meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-8 Nov. 2012</td>
<td>First OECD Global Forum on Value Added Tax. OECD Centre for Tax Policy and Administration, OECD Paris, France</td>
</tr>
<tr>
<td>23 Nov. 2012</td>
<td>First OECD Forum on Green Growth and Sustainable Development. OECD Environment Directorate, OECD, Paris, France</td>
</tr>
</tbody>
</table>

**Other meetings**

<table>
<thead>
<tr>
<th>Date</th>
<th>Meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-5 Nov. 2012</td>
<td>G20 Finance Ministers and Central Bank Governors’ meeting. Mexico City, Mexico</td>
</tr>
<tr>
<td>14-16 Nov. 2012</td>
<td>World Pension Summit 2012. Amsterdam, the Netherlands</td>
</tr>
<tr>
<td>16 Nov. 2012</td>
<td>22nd Ibero-American Summit 2012. Cadiz, Spain</td>
</tr>
<tr>
<td>6-7 Dec. 2012</td>
<td>&quot;Debt, Growth and Macroeconomic Policies&quot; Conference. European Central Bank, Frankfurt, Germany</td>
</tr>
</tbody>
</table>

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