

Leading Macroeconomic Indicators: International Experience in Calculating & Using these Indicators



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Outline

- Leading Indicators of Economic Activity
- International Data Standards (IMF)
- Vietnam: Economic Data and Information

Leading Indicators of Economic Activity

- Definition (OECD): an aggregate time series displaying a reasonably consistent leading relationship with the reference series for the business cycle in a country.
- Purposes: As a result of the multi-criteria selection process, the CLI (Composite Leading Indicator) can be used to give an early indication of turning points in the reference series but not for quantitative forecasts.
- Construction: aggregating component series selected according to multiple criteria: economic significance, cyclical correspondence and data quality.

Leading Indicators of Economic Activity

- Series selection criteria
 - ✓ Country specific
 - ✓ Economic significance
 - ❖ *A priori* economic reason for a leading relationship with the reference series
 - ✓ Cyclical behavior
 - ❖ *Cycles should lead those of the reference series, with no missing or extra cycles*
 - ❖ *The lead at turning points should be homogeneous over the whole period*
 - ✓ Data quality
 - ❖ *Broad statistical coverage*
 - ❖ *Compiled on a monthly rather than on a quarterly basis*
 - ❖ *Timely and easily available*
 - ❖ *No break in time series*
 - ❖ *Should not be revised frequently*

Composite Leading Indicators: OECD

OECD-Total (33 countries): Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.

OECD + Non-member economies (39 countries): Australia, Austria, Belgium, Brazil, Canada, Chile, China, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, India, Indonesia, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Russian Federation, Slovak Republic, Slovenia, Spain, South Africa, Sweden, Switzerland, Turkey, United Kingdom and United States.

Major Seven: Canada, France, Germany, Italy, Japan, United Kingdom, and United States.

OECD Europe: Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

Euro area: Europe 16 area excluding Denmark, Sweden, and United Kingdom.

Four Big European Countries: France, Germany, Italy, and United Kingdom.

NAFTA (3 countries): Canada, Mexico, and United States.

Major 5 Asia: China, India, Indonesia, Japan and Korea.

Non-member economies: China, Brazil, India, Indonesia, Russian Federation, South Africa.

Leading Indicators: OECD

United States—Component series (unit): Source

- Dwellings started (number): Bureau of the Census
- Net new orders for durable goods (US\$ million): Bureau of the Census
- Share prices: NYSE composite (2005=100): Bureau of the Census
- Consumer sentiment indicator (normal = 100): University of Michigan
- Weekly hours of work : manufacturing (hours): Bureau of Labor Statistics
- Purchasing managers index (BS) (% balance): Institute of Supply Management
- Spread of interest rates (% per annum): Federal Reserve

Indonesia—Component series (unit): Source

- Share prices: JSX index (2005=100): Singapore Yahoo Finance
- Central Bank Discount rate (% per annum) inverted: Bank Indonesia
- IDR/USD exchange rate (end of period) (IDR/USD) inverted: IMF
- Producer Price Index/Wholesale Price Index (2005=100) inverted: Bank Indonesia
- Consumer confidence index (normal = 100): Bank Indonesia
- Production of paper and paper products (2005=100): National Bureau of Statistics

Leading Indicators: Other examples

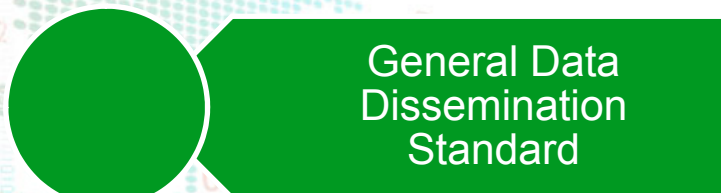
Thailand—Bank of Thailand

- Authorized capital of newly registered companies
- New construction area permitted
- Real exports
- Number of foreign tourists
- SET index
- Real broad money
- Oil price inverse index (Oman)

Singapore

- Total new companies formed
- CPF default rate (manufacturing sector)
- Domestic supply price index (manufactured goods)
- Money supply (M2)
- Stock Exchange of Singapore index
- Unit labor cost index (manufacturing)
- Business expectations for stock of finished goods (manufacturing sector)
- Business expectations for new orders received (manufacturing sector)
- Business expectations for wholesale trade

International Data Standards (IMF)



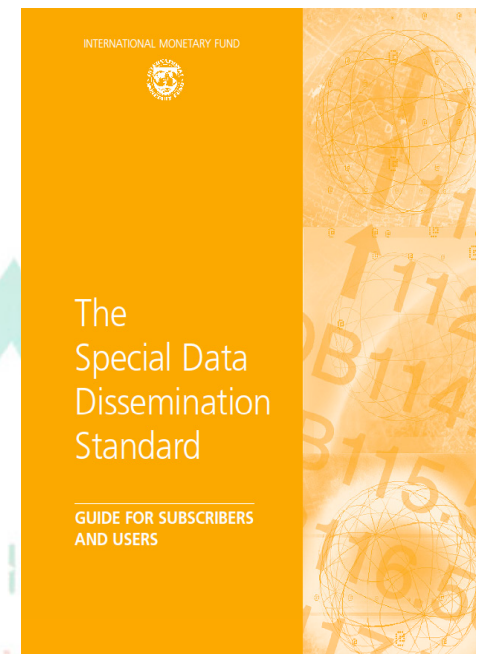
IMF's initiatives on data dissemination

Rooted in the UN Fundamental Principles of Official Statistics; grew out of GDDS and SDDS

- Dissemination Standard Bulletin Board (DSBB) established to support ready access by the public to information on country's data dissemination practices.

Special Data Dissemination Standard (SDDS)

- Established by the IMF in 1996
- First tier of the IMF's standard initiatives to provide guidance to countries that have, or might seek access to capital market to disseminate key economic and financial data.
- Allows users in general, and financial market participants in particular, to adequate information to assess the economic situation of participating countries.
- Subscription SDDS is voluntary.
- Prescribes data in 4 key sectors (real, fiscal, financial, and external), and also population.
- 68 countries currently participate in the SDDS.



<http://www.imf.org/external/pubs/ft/sdds/guide/2007/eng/sddsguide.pdf>

Special Data Dissemination Standard (SDDS, cont.)

Box 1.1. Key Dimensions and Elements of the SDDS

The four dimensions of the SDDS are shown in bold, with corresponding monitorable elements in italics.

The data: coverage, periodicity, and timeliness. Comprehensive economic and financial data, disseminated on a timely basis, are essential to the transparency of macroeconomic performance and policy. Countries subscribing to the SDDS are to:

- Disseminate the prescribed categories of data with the specified periodicity and timeliness.

Access by the public. Dissemination of official statistics is an essential feature of statistics as a public good. The SDDS calls for providing the public, including market participants, ready and equal access to the data. Countries subscribing to the SDDS are to:

- Disseminate advance release calendars for the data.
- Release the data to all interested parties simultaneously.

Integrity. To fulfill the purpose of providing the public with information, official statistics must have the confidence of their users. In turn, confidence in the statistics ultimately becomes a matter of confidence in the objectivity and professionalism of the agency producing the statistics. Transparency of its practices and procedures is a key factor in creating this confidence. The SDDS requires subscribing countries to:

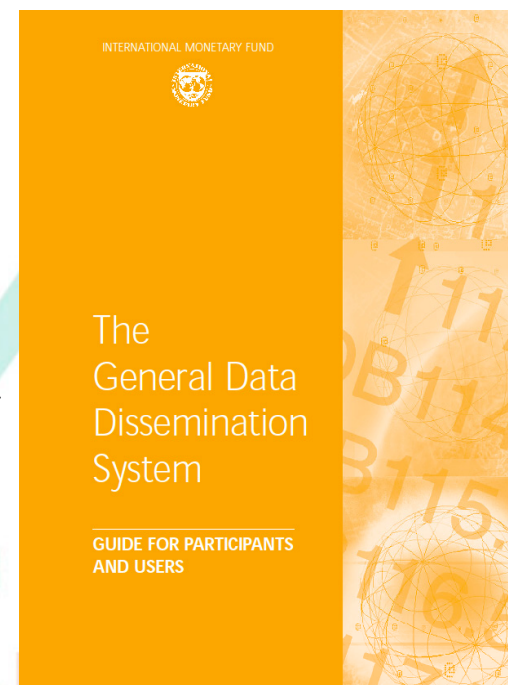
- Disseminate the terms and conditions under which official statistics are produced, including those relating to the confidentiality of individually identifiable information.
- Identify internal government access to data before release.
- Identify ministerial commentary on the occasion of statistical releases.
- Provide information about revision and advance notice of major changes in methodology.

Quality. A set of standards that deals with the coverage, periodicity, and timeliness of data must also address the quality of statistics. Although quality is difficult to judge, monitorable proxies, designed to focus on information the user needs to judge quality, can be useful. The SDDS requires subscribing countries to:

- Disseminate documentation on methodology and sources used in preparing statistics.
- Disseminate component detail, reconciliations with related data, and statistical frameworks that support statistical cross-checks and provide assurance of reasonableness.

General Data Dissemination System (GDDS)

- Established by the IMF in 1997
- For member countries with less developed statistical systems as a standard for evaluating their needs for data improvement and setting priorities
- Participation is voluntary
- GDDS takes a similar approach to data quality as SDDS, but places more emphasis on improving data quality over the long run
- IMF supports with technical assistance
- Over 90 percent of IMF member countries currently participate in the GDDS



<http://dsbb.imf.org/vgn/images/pdfs/gddsguide.pdf>

General Data Dissemination System (GDDS, cont.)

Box 2.1. The Four Dimensions of the GDDS

- 1. The Data—Coverage, Periodicity, and Timeliness.** Dissemination of reliable, comprehensive, and timely economic, financial, and sociodemographic data is essential to the transparency of macroeconomic performance and policy.

The GDDS therefore recommends dissemination of data as described in Table 3.1.

- 2. Quality.** Data quality must have a high priority. Data users must be provided with information to assess quality and quality improvements. The GDDS recommends:
- Dissemination of documentation on methodology and sources used in preparing statistics.
 - Dissemination of component detail, reconciliations with related data, and statistical frameworks that support statistical cross-checks and provide assurance of reasonableness.
- 3. Integrity.** To fulfill the purpose of providing the public with information, official statistics must have the confidence of their users. In turn, confidence in the statistics ultimately

becomes a matter of confidence in the objectivity and professionalism of the agency producing the statistics. Transparency of practices and procedures are key factors in creating this confidence. The GDDS therefore recommends:

- Dissemination of the terms and conditions under which official statistics are produced, including those relating to the confidentiality of individually identifiable information.
 - Identification of internal government access to data before release.
 - Identification of ministerial commentary on the occasion of statistical releases.
 - Provision of information about revisions and advance notice of major changes in methodology.
- 4. Access by the public.** Dissemination of official statistics is an essential feature of statistics as a public good. Ready and similar access by the public are principal requirements. The GDDS recommends:
- Dissemination of advance-release calendars.
 - Simultaneous release to all interested parties.

Benefits of GDDS/SDDS Participation

- Greater economic policy transparency:
 - ✓ Good corporate governance and accounting transparency are correlated with higher investment and lower spreads for corporate borrowers (PricewaterhouseCoopers, 2001, Price, 2002).
 - ✓ Countries with more transparent regimes tend to have better fiscal discipline, more favorable credit ratings than their less transparent counterparts (Hammed, 2005).
- Market effects of SDDS/GDDS:
 - ✓ Regarding sovereign borrowing costs for developing countries, subscription to SDDS reduces launch spreads by about 20 pct (50 bps) while participation in the GDDS reduces spread by about 9 pct (20 bps) (Cady 2005, Pellechio, 2006).
 - ✓ Dissemination of reserve template data help reduces nominal exchange rate volatility (Cady and Gonzalez Garcia, 2006).

Vietnam: Economic Data and Information

- IMF technical assistance
- Sectoral data



IMF Technical Assistance

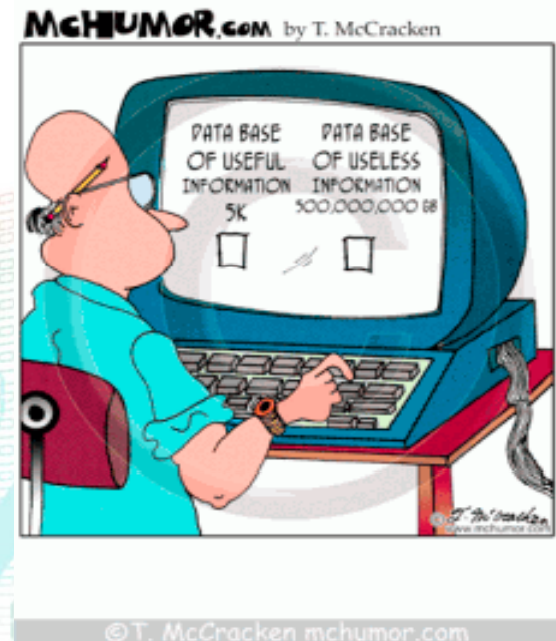
- IMF has sent several technical assistance missions from the Statistics Department to the GSO and SBV to help improve:

- ✓ Price statistics
- ✓ National account statistics
- ✓ External sector statistics
- ✓ Monetary statistics

Sectoral Data

- National Accounts
- Price Statistics
- Government Finance Statistics
- Monetary Statistics
- External Sector Statistics
- Financial sector Statistics

Vietnam has participated in GDDS since 2003; could aim to graduate to SDDS.



National Accounts (NA)

- GSO provides the following data and information
 - ✓ GDP by type of economic activity—supply side (A, Q)
 - ✓ GDP by expenditure—demand side (A only)
 - ✓ Industrial production—value and volume (M)
 - ✓ Retail sales—value (M)
 - ✓ External trade—value (M)
- Issues
 - ✓ Publish quarterly GDP by expenditure
 - ✓ Constant price GDP using 1994 base year, so need of updating
 - ✓ NA methodologies are consistent with SNA 93; compilation requires improvements in data collection and better coordination and communication between data collection agencies.

Note: A: Annual; Q: quarterly; M: Monthly, D: Daily

Price Statistics

- Price indices provided by the GSO
 - ✓ CPI (M): methodology largely in line with international standards
 - ✓ Export/Import price index (A)
- Issues
 - ✓ Core inflation construction and dissemination
 - ✓ Only notional inclusion of owner-occupied and rental housing in calculating the CPI
 - ✓ Publish Industrial Production Price Index (Q)

Government Finance Statistics

- MOF publishes budget data (A)
- Issues
 - ✓ Off-budget investment expenditure, on lending, quasi fiscal activities of SBV and SOEs, and extra-budgetary funds: data not complied/disseminated regularly
 - ✓ Currently, no government finance statistics reported to IMF's GSFY or IFS (data provision stopped in 2004); no sub-annual fiscal data are published
 - ✓ Improve coverage of data and align definition with GFSM 2001
 - ✓ High frequency data

Monetary Statistics

- Can further improve data coverage and dissemination (e.g. SBV balance sheet, consolidated monetary tables)
- Issues
 - ✓ International reserve data published, with a 6-month lag
 - ✓ Lack of breakdown data of banks' credit by borrowing sector/subsector
 - ✓ Need to develop a list of privatized SOEs, and therefore should be classified as private enterprises in credit data by borrowing sector.

External Sector Statistics

- SBV publishes annual and quarterly BOP data
- Issues
 - ✓ Large errors and omissions (e.g. US\$13 billion in 2009)
 - ✓ BOP statistics rely on limited data sources, resulting in gaps in several areas of external accounts (current, capital, financial)
 - ✓ FDI statistics are incomplete, in part because legal definition of foreign investors used by SSC does not accord with statistical guidelines

Financial Sector/SOEs Statistics

- Limited financial sector data
- Limited data on SOEs





Thank you