The Revision of National Accounts of Thailand (New series)

The Office of National Economic and Social Development Board (NESDB) has studied and worked on the improvement of National Accounts of Thailand back to 1990. A new series of statistical tables for the 1990-2010 is expected to complete and release on the NESDB's website by the end of December 2011 after the dissemination seminar that we expect to obtain comments and feedbacks from relevant stakeholders prior to an official release. The new series publication will include analysis and statistical tables together with the main revision announcement which anticipates to finishing within January 2012. Therefore, National Income of Thailand 2009 is considered to be the last publication of the current series.

An improvement of National Accounts of Thailand covers both the values at current prices and the values at constant prices. In addition, we especially introduce the Chain Volume Measures (CVMs) in replace of existing fixed base year of the gross domestic product.

Revisions of National Accounts of Thailand have been undertaken for four times: firstly, the base year 1956 for GDP series 1951-1963 which is the first series of Thailand's National Accounts; secondly, the base year 1962 for GDP series 1960-1975 which is the first statistical tables presented in an international standard format; thirdly, the base year 1972 for GDP series 1970-1990 incorporating an income approach to complete National Accounts of Thailand estimation with three approaches – the production approach, the expenditure approach, and the income approach; finally the base year 1988 for the current series available on the NESDB website.

The four mentioned rebasing of national accounts estimates is only for updating prices of goods and services used as weights in the base year but the compilation process conforms conceptually the traditional national accounts estimates: fixed-weighted volume measures. For this new series, the revision is compliance with the latest international standard recommendations on national statistical guidelines on national accounts statistics, especially for measuring real economic growth by the chain volume measures. In addition, the NESDB has reviewed theoretical concepts and applied empirical study with the same dataset to both the old fixed base and the CVMs. The empirical results show that there exists substitution bias in constant price estimates among Laspeyres and Paasche methods, called *Laspeyres-Paasche-Gap*. Nevertheless, the chain volume estimates in national accounts incur "Non-additivity" in which the summation value of chained component items is unequal to the aggregate chained value. However, the chain volume measures perform better consistence to GDP growth measurement in real terms, especially in the case of using obsolete base year as seen from theoretical concepts and empirical results of Thailand.

The concept of measuring chain volume estimates of national accounts is briefly concluded that the measurement of the volumes of various components in each pair of consecutive periods instead of using constant prices for distant base year, called *direct index*. The compilation procedures can be summarized into two levels:

(1) Compiling Laspeyres fixed-weight volume index derived from the primary constant price index in which the previous prices are applied in each pair of consecutive period as direct index, and

(2) Linking the series by accumulating period-to-period growth beginning with chain index so as to connect the non-consecutive periods as a unique linked series, making it comparable.

However, such a link will cause “Non-additive” which the direct chained aggregate value is unequal to the indirect summation from its chained components. Therefore, the CVMs loose *additive property*, belonging to the constant price estimates. However, chain volume estimate of national accounts is more accurate in the real growth measurement.

For this reason, NESDB has introduced the chain volume measure of national accounts in replace of constant prices measures in the new series. Furthermore, we have used this opportunity to improve our SNA quality in various important features, particularly on adding up new economic activities into the production expenditure, and income approaches; namely other business services, non-bank financial institutions (Non-Banks), the National Credit Bureau, the Non-profit organization, residential services, private water supply, transports and communications services – van transport public service, motorcycle service, chartered flight, warehouse, delivery services, cable television services, satellite broadcasting service, and internet communications services together with treatment revision of mineral exploration cost of state-enterprises and private sector, in-house software development, and the expenditure of financial intermediation services indirectly measured of the government and the household sector.

The detailed concept of rebasing of National Accounts of Thailand is available in the seminar documentation, seminars, and other relevant documents related to the list below are published on the NESDB website or call 02 280 4085 ext 6166 or 6171 or via e-mails: Somjit@nesdb.go.th; Apichai-t@nesdb.go.th or fax 02 281 2466.

All documents related to revision of a new series of National Accounts of Thailand

1. September 20, 2004: Conference of macroeconomic and national accounts 2004 "Changing the base year of National Accounts of Thailand published on www.nesdb.go.th\บัญชีประชาชาติ\การปรับปรุงและการเปลี่ยนปีฐานรายได้ประชาชาติ
2. November 18, 2005: A seminar under the project of rebasing of national income of Thailand statistics, Phase 1 published on www.nesdb.go.th\บัญชีประชาชาติ\การปรับปรุงและการเปลี่ยนปีฐานรายได้ประชาชาติ.
3. March 2006: article entitled "Rebasing of national accounts" published in the first of newsletter 1Q/2006 available on www.nesdb.go.th\บัญชีประชาชาติ\Newsletter.
4. March 2007: article entitled "How to develop National Accounts of Thailand to be compliance with System of National Accounts, 1993" published in the newsletter 1Q/2007 available on www.nesdb.go.th\บัญชีประชาชาติ\Newsletter.
5. September 19, 2007: A seminar under the project of rebasing of national income of Thailand statistics, Phase 2 published on www.nesdb.go.th\บัญชีประชาชาติ\การปรับปรุงและการเปลี่ยนปีฐานรายได้ประชาชาติ
6. March 2008: article entitled "Guidelines for improving the real value of national accounts by CVM published in the newsletter Q1/2008 available on www.nesdb.go.th\บัญชีประชาชาติ\Newsletter
7. September 19, 2011: Brainstorming on the results of CVM of National Accounts of Thailand.