



**Asia-Pacific  
Economic Cooperation**

**Advancing** Free Trade  
for Asia-Pacific **Prosperity**

# **APEC Best Practices on Developing Services-related Statistics in Mode 3**

**APEC Group on Services**

March 2022





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## List of Acronyms

ABS	Australian Bureau of Statistics
APEC	Asia-Pacific Economic Cooperation
ASCR	APEC Services Competitiveness Roadmap
BEA	Bureau of Economic Analysis
BOP	Balance of Payment
BOT	Bank of Thailand
BP-CIA	Canadian Investments Abroad
BPS	<i>Badan Pusat Statistik</i> /Statistics Indonesia
COVID-19	Coronavirus Disease
CPC	Central Product Classification
CSA	Census and Statistics Act
DBD	Department of Business Development
FATS	Foreign Affiliates Statistics
FDI	Foreign Direct Investment
FGD	Focus Group Discussion
GDP	Gross Domestic Product
GOS	Group on Services
ICT	Information and Communications Technology
IITSSA	International Investment and Trade in Services Survey Act
IMF	International Monetary Fund
ISIC	International Standard Industrial Classification
ITRS	International Transactions Report System
METI	Ministry of Economy, Trade and Industry
MNEs	Multinational Enterprises
MSITS	Manual on Statistics of International Trade in Services
NSO	National Statistical Office
OJK	<i>Otoritas Jasa Keuangan</i> /Financial Services Authority
OSS	Online Single Submission
SID	Statistics and Information System Department
SOFAT	Survey of Outward Foreign Affiliates Trade
UCI	Ultimate Controlling Institutional Unit
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
US	United States
WTO	World Trade Organization

## Glossary

<b>Balance of Payments (BOP)</b>	: The balance of payments is a statistical statement that summarizes transactions between residents and non-residents during a period. It consists of the goods and services account, the primary income account, the secondary income account, the capital account, and the financial account (IMF, n.d.).
<b>Foreign Affiliates Statistics (FATS)</b>	: Foreign affiliates statistics, abbreviated as FATS, describe the activities of foreign affiliates: enterprises resident in a economy or area, controlled or owned by (multinational) enterprises which are resident outside that economy or area (Eurostat, n.d.).
<b>Inward FATS</b>	: Inward FATS describe the overall activity of foreign affiliates resident in the compiling economy. A foreign affiliate within the terms of inward FATS is an enterprise resident in the compiling economy over which an institutional unit not resident in the compiling economy has control (Eurostat, n.d.).
<b>Outward FATS</b>	: Outward FATS describe the activity of foreign affiliates abroad controlled by the compiling economy. Foreign affiliate within the terms of outward FATS is an enterprise not resident in the compiling economy over which an institutional unit resident in the compiling economy has control (Eurostat, n.d.).
<b>International Transactions Reporting system (ITRS)</b>	: a system for reporting international transactions measures (1) individual BOP cash transactions that pass through domestic banks and through enterprise accounts with banks abroad, (2) noncash transactions, and (3) stock positions. Statistics are compiled from forms submitted to domestic banks and from forms submitted by enterprises. An international transactions reporting system (ITRS) can provide comprehensive and timely BOP statistics (IMF, 1995).
<b>The Manual on Statistics of International Trade in Services 2010 (MSITS 2010)</b>	: a manual that provides a coherent internationally-agreed conceptual framework within which countries can structure the statistics they compile and report on international services trade. It builds on and links to existing standards, in particular the sixth edition of the IMF's Balance of Payments Manual and the 2008 System of National Accounts. It categorises the services that are traded internationally, and how they are traded in practice, taking into account the modes of supply of services (OECD, n.d.).

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## Executive Summary

The services sector is a new source of economic growth, as it has a significant contribution to the economic value-added, employment, and trade. It also acts as an input for both inside and outside the sector (e.g., manufacturing and agriculture), empowering sectors linked to a global production network. In international trade, the services sector has become more tradable due to the rapid development of the internet and other communication technologies.

International trade in services is supplied through four modes, namely cross-border supply (mode 1), consumption abroad (mode 2), commercial presence (mode 3), and presence of natural persons (mode 4). Nonetheless, the share of trade in services to GDP is still lower than that of merchandise trade. However, this is possibly underestimated since the balance of payments (BOP) covers only mode 1, mode 2, and mode 4. International trade in services through foreign affiliates (mode 3) has yet to be captured in international trade in services statistics in most APEC economies.

Many APEC economies have combined various methods to compile inward and outward Foreign Affiliates Statistics (FATS). Some economies have designed specific surveys to collect FATS on the operations of resident affiliates of foreign firms and foreign affiliates of domestic firms, or add key FATS variables to existing surveys (WTO, 2010), while others prefer to compile FATS using pre-existing data. Despite these efforts to compile FATS, it is important to address the issues apparent when doing so, which include the lack of data availability, a legal framework, and data resources. These issues were gathered from the pre-event evaluation of this project.

There are some immediate actions economies can pursue when seeking to compile statistics in mode 3 of trade in services, i.e.: introducing a legal framework as the basis to compile statistics in mode 3, compiling data by utilizing the existing database, and improving the coordination between user and compilers.

## 1. Introduction

The growth in the services sector contributes to higher economic value-added, employment, and trade creation. Thus, the services sector can now be regarded as a key driver of economic growth. In the APEC region, this sector contributes to more than 65 percent of gross domestic product (GDP) and also absorbs 55 percent of employment in 2019 (StatsAPEC, n.d.). Services also play a crucial role as an input for both the services sector itself as well as other sectors, like manufacturing and agriculture. In global value chains, services are recognized as ‘service linkages’ or ‘glue’ of GVCs, which rely intensively on service linkages to link and coordinate activities across different sectors and countries (Fernandez-Stark & Gereffi, 2019). The importance of the services sector is also reflected in trade agreements, where it acts as one of many areas that can prompt negotiations.

Prior to digitalization, proximity between producers and consumers is a necessary condition to conduct transactions in the services sector. However, as technological developments continue to transform this sector through emerging modern services like telecommunications and information and communications technology (ICT), the sector is gradually becoming more tradable across borders (UNCTAD, 2017). Trade in services is supplied through four modes including cross-border supply (mode 1), consumption abroad (mode 2), commercial presence (mode 3), and presence of natural persons (mode 4).

The share of trade in services to GDP is still lower than that of merchandise trade. In 2019, the share of trade in services to GDP was 8.6 percent, while trade in merchandise to GDP accounted for 35.8 percent (StatsAPEC, n.d.). However, it is worth noting that the share of trade in services to GDP is possibly underestimated, since the balance of payments (BOP) covered only mode 1, mode 2, and mode 4. Thus, the lower contribution of trade in services to GDP can possibly be attributed to the absence of services through foreign affiliates (mode 3) that was not taken into account in the BOP.

The advanced development of trade in services negotiations require demand for more detailed, relevant, and internationally comparable statistical information. For example, there is a need to have trade in services statistics by mode of supply and by the services sector’s classifications used in trade negotiation (i.e. CPC, W/120). The availability of such trade in services statistics will enable trade negotiators to analyse market access opportunities, compare liberalization commitments between countries, and provide statistical backgrounds for any positions formulated in the negotiation.

Demand for detailed and relevant trade in services statistics is also essential for policymakers, researchers, and academics. For policymakers, this can be beneficial, as it can help them understand the behavior and conduct of the services sector, as well as capture the link between the domestic services market and the international market.

The United Nations Statistical Commission adopted the first Manual on Statistics of International Trade in Services (MSITS) in 2002. The publication introduced two sets of trade in services statistics, namely the BOP and FATS. BOP records mostly modes

1, 2, and 4, while FATS tackle the supply of services by mode 3 (i.e. commercial presence).

BOP is the most commonly available data for trade in services statistics, while only several economies compile FATS. There are twelve out of twenty one APEC economies that collect FATS. Additionally, some of the available data are not regularly updated. Thus, improvements can be made regarding data availability on inward/outward FATS.

## **2. Objectives**

APEC Group on Services (GOS) and the Ministry of Trade of Indonesia promoted the development of services-related statistics by conducting a Workshop on APEC Best Practices on Developing Services-related Statistics in Mode 3 on June 29<sup>th</sup> and 30<sup>th</sup>, 2021. The workshop aims to: (1) enhance one's understanding of the nature of FATS, the foundations and methods for compiling statistics, the conceptual framework, as well as the practical aspect of the measurement of mode 3 by using FATS data; (2) share experiences and exchange best practices among workshop participants in regard to data compilation practices on mode 3 by using FATS data; (3) recognize statistical challenges and problems faced by APEC member economies; and (4) develop recommendations that highlight the importance of FATS in forming better sectoral policies.

The Ministry of Trade of Indonesia formulated a suggested best practice which was published as an APEC Publication, in order to provide a reference for APEC economies in regards to statistics-in-mode 3-related workshops or capacity building in APEC. The document consists of four sections: the first discusses how FATS are compiled across the APEC economies; the second focuses on the experiences of four APEC Economies in compiling FATS, namely Australia, Indonesia, Thailand and the United States (US); the third discusses the tracking mechanism as a post-workshop activity in Indonesia and Russia; and the last provides recommendations on FATS compilation in APEC economies.

## **3. Compilation of FATS in APEC Economies**

There are twelve economies that have compiled FATS. These economies are Australia; Canada; China; Hong Kong, China; Japan; Korea; Malaysia; New Zealand; Singapore; Thailand; the US; and Viet Nam (APEC Policy Support Unit, 2021; Shanmugam & Ramasamy, 2018).

FATS are comprised of inward and outward. Inward FATS show the overall activities of foreign affiliates residing in the compiling economy. On the other hand, outward FATS provide the activities of foreign affiliates abroad, controlled by the compiling economy. Some economies only have inward FATS, such as Hong Kong, China; Malaysia; New Zealand; Thailand; and Viet Nam. While some other economies have

both inward and outward FATS, such as Australia; Canada; China; Japan; and the US (Atkins & Roesler, 2017; Magdeleine, n.d.; WTO, 2021).

Many APEC economies combine various methods when compiling inward and/or outward FATS. Some economies design specific surveys to collect FATS on operations of resident affiliates of foreign firms and foreign affiliates of domestic firms or to add key FATS variables to existing surveys (WTO, 2010), while others opt to simply compile FATS using pre-existing data.

The first method to compile FATS is through a survey. Some economies prefer to design surveys when seeking to collect FATS on resident affiliates of foreign firms and foreign affiliates of domestic firms. This can take the form of designing new surveys on FATS or adding key FATS variables to existing surveys on FDI. The economies that use this approach are Canada, Japan, and the US.

Canada and the US utilize FDI surveys in collecting FATS. Canada employs the Canadian Investments Abroad questionnaire (BP-CIA) to collect outward FATS. This survey collects data on Foreign Direct Investment Abroad by incorporating specific questions to gather Canada's FATS. The universe for this survey comprises of foreign affiliates abroad that are majority-owned (i.e., more than 50% of the voting shares) by a business that resides in Canada (Canadian Investment Abroad, 2020).

The US also compiles inward and outward FATS from mandatory surveys of US multinational enterprises conducted by the Bureau of Economic Analysis (BEA). These statistics provide a vivid picture of US multinational enterprises' overall activities – both domestic and foreign operations – and shed light (via a wide variety of indicators) on their financial structure and operations (BEA, 2021).

Meanwhile, Japan obtained their outward FATS from the Basic Survey on Overseas Business Activities by the Japanese Ministry of Economy, Trade and Industry (METI) (Spinelli et al., 2018), as a pursuant to the Statistics Act. The survey is sometimes challenging for compilers, since the cost of the survey is relatively high. Balancing the costs and benefits of the survey is very important since some economies are facing issues on resource availability and response burden (WTO, 2010) .

The second method to compile FATS is by identifying the subset of existing statistics on resident enterprises referring to foreign-controlled affiliates. However, this strategy can only be applied for inward FATS, since it is difficult to obtain the necessary data needed from another economy when seeking to calculate outward FATS (WTO, 2010). Several APEC economies have used this approach, such as Hong Kong and Thailand. Hong Kong established inward FATS from the existing survey database, namely Annual Economic Surveys and Survey of External Claims, Liabilities and Income. Meanwhile, Thailand compiled their inward FATS by utilizing an annual report on financial statements relating to international investment position; a report on the financial statement from the Department of Business Development, Ministry of Commerce; and the value of exports and imports of goods from the Customs Department, Ministry of Finance (Bank of Thailand, 2021).

The third method is to combine data from FDI surveys or existing statistics when seeking to compile FATS. This approach is used by Australia and Malaysia. Australia obtained data for outward FATS through a pilot Survey of Outward Foreign Affiliates

Trade (SOFAT), while inward FATS were compiled using the existing database. Malaysia obtained inward FATS from existing surveys, such as Economics Census, Census of Distributive Trade, and Joint International Investment Position survey; while data for outward FATS were obtained from the Survey of Outward Foreign Affiliates (Shanmugam & Ramasamy, 2018).

Based on the responses from several APEC economies to the pre-event evaluation of this project, there are some notable issues when compiling FATS, which include the lack of data availability, a legal framework, and resources.

Firstly, challenges arise due to the lack of data availability on the corporate sector database, wherein a foreign-affiliate business directory may be stored or lack proper data sources. In addition to this, unavailable accurate concordance between the industry-based FATS and the type-of-service-based Mode 3 statistics become an impediment when compiling FATS.

Secondly, most economies agree that a prevailing legal framework and institutional arrangement are indeed important for both the economy and institutions in terms of the FATS implementation. Yet, it is worth noting that most economies claim to have not had any specific regulations that can support the implementation of FATS. Consequently, the absence of a legal framework often leads to a lack of coordination and cooperation among related institutions and stakeholders.

Thirdly, some APEC economies argue that the lack of resources, particularly the lack of skills, infrastructure, and funding, has often impeded the establishment or revision of FATS. For the compiler, one of the solutions to tackle this is to boost cooperation with other economies in order to mutually provide the information needed when seeking to produce qualified data (as part of the FATS implementation).

## **4. Lessons Learned**

This section exhibits the experiences of four APEC economies – the US, Australia, Indonesia, and Thailand – when compiling FATS. The analyses focus on five aspects, such as regulation framework, compiling institution, implementation of FATS compilation, impediments or challenges, and lessons learned.

### **A. United States**

#### **1. Regulation**

The US regulates the collection of trade in services data through The International Investment and Trade in Services Survey Act ("IITSSA"), 22 U.S.C. 310. This act requires US businesses to report all foreign investment (direct or indirect) if a foreign person (or foreign entity) owns 10% or more of the voting interest in the US entity, unless: (1) the total investment is under \$1 million; (2) any investment in real estate is under 200 acres; or (3) any investment in real estate is intended for personal use only (BTLG, n.d.).

Based on IITSSA, the Entities with foreign ownership must report three surveys including:

1. Quarterly Survey of Foreign Direct Investment in the US, which is used to report relationships and transactions between the US entity and a foreign investor (Form BE-605)
2. Annual Survey, which is used to report annual financial and operating data of the US Entities (Form BE-15)
3. Benchmark Survey, which must be filed once every five years (Form BE-12)

IITSSA regulates that all reports provided are confidential and may only be used for analytical and statistical purposes.

## **2. Institution**

The Bureau of Economic Analysis (BEA) has the primary responsibility over collecting and disseminating data on the US' international sales and purchases of services. BEA's core mission is to compile the member's economic accounts. BEA is responsible to maintain the economy income and product accounts, the international transactions (balance of payments) accounts, the input-output accounts, a regional economic information system, and an information system dealing with the US' multinational companies and foreign-owned companies operating in the US (Whichard, 2000).

BEA is also a primary data collector in the area of trade in services, including both data on cross-border trade and data on services delivered through affiliates. However, for the most part, BEA does not directly collect the data, and instead obtains it from other government agencies, private sources, and – in a few cases – data exchanges with foreign statistical offices or international organizations.

## **3. Implementation**

BEA had collected FATS since the 1950s, with improvements made throughout the 1970s and 1980s. BEA implemented a benchmark survey and a yearly database to compile FATS. The benchmark survey, conducted every five years, is the most extensive survey with the most comprehensive subject matter (most questions). On the other hand, the yearly survey is a simplified questionnaire that contains fewer questions, making it less cumbersome for respondents (Barefoot, 2013; Mann, 2021).

According to Chapter 46 regarding International Investment and Trade in Services Survey (2013), these are obligatory surveys mandated by the US Congress. Businesses that do not complete the questionnaires face fines from the government. All firms must submit an accurate and complete report. Any firm that fails to provide the required information is subject to a civil penalty of not less than \$2,500 but not more than \$25,000. Any wilful failure to furnish information or wilful violation of the regulations may have a criminal penalty of not more than \$10,000 assessed against the entity. In the case of an individual, they may be imprisoned for not more than one year, fined, or both.

Furthermore, any officer, director, employee, or agent of any entity who knowingly participates in such violation may be subject to a similar fine, imprisonment, or both.

The advantage of conducting the survey is that the compiler can tailor questions based on the data needed for compilation. On the other hand, disadvantages include respondent burden, compiler burden, and monetary cost (Mann, 2021).

#### **4. Impediments or Challenges**

The compilation of FATS in the US' experience has several challenges including:

- a. First, the data only covers primary business activities. FATS figures are frequently categorized by the affiliate's major business activity, based on its most significant industry of yearly sales. This means that its secondary business activity is not included in the report, therefore giving rise to possible inaccuracies. Thus, using microdata can be a feasible alternative, as it can incorporate more of the underlying detail collected on FATS surveys of MNEs, to better discern the appropriate service types associated with the full range of an affiliate's activities, including those conducted in secondary service industries.
- b. Second, excluded groups. Economies may not disclose local host economy sales statistics. Hence, the bridge table is needed to remove a few service categories listed in its trade statistics, such as "other business services n.i.e." and "maintenance and repair services n.i.e.". The bridge table is also needed to map the services sector with more than one type of traded service, in order to avoid problems of double counting.
- c. Third, repression. Some economies have limitations in publishing data due to regulations that prohibit the potential disclosure of survey data reported by individual companies. The assurance of confidentiality is often essential to securing the cooperation of reporters. As one of the solutions, economies can aggregate the survey data in some areas or economy levels. On the other hand, the nondisclosure analysis can reveal a large number of published values that can be suppressed, even (at times) at the global level.

#### **5. Best Practices**

The US' experience shows that a strong regulation and institutional framework in compiling FATS has encouraged the US affiliates to comply and submit a mandatory report on their foreign affiliates' activities. The US introduces fines to enforce affiliates' participation in the survey. In return, the compiler guarantees the security of data reported by the affiliates.

In terms of implementation, the US separated the survey into an annual one that has a shortened questionnaire and a more comprehensive one that is conducted every five years. This strategy reduces the burden the survey

imposes on affiliates and possibly even incentivizes them to participate in the survey.

## **B. Australia**

### **1. Regulation**

The Census and Statistics Act 1905 (CSA) provides the Australian Statistician with the authority to conduct statistical collections, including the Census of Population and Housing, and, when necessary, to direct a person to provide statistical information. No legal provisions are applied specifically to the compilation of international merchandise trade statistics and associated statistics (e.g., the BOP), apart from the general terms applied to all ABS statistical areas (IMF, 2021).

### **2. Institution**

The Australian Bureau of Statistics (ABS) collects and disseminates statistics under the authority of the Census and Statistics Act (1905) (CSA) and the Australian Bureau of Statistics Act 1975 (IMF, 2021). The Australian Bureau of Statistics Act 1975 establishes the ABS as an independent statutory authority, defines the function of the ABS, establishes the office of the Australian Statistician, and describes the terms under which the Australian Statistician can be appointed to, and removed from, office. The CSA requires the ABS to publish and disseminate compilations and analyses of statistical information and to maintain the confidentiality of information collected under the Act.

### **3. Implementation**

The ABS collects trade in services information to compile Australia's BOP and National Accounts averages. ABS collects the data through the Survey of International Trade in Services (SITS).

The ABS began compiling inward FATS in 2000-2001 reference year and outward FATS for 2002-2003. The latest FATS was compiled in 2020, which took more than a year to accomplish. The process entailed developing instruments (Feb-Jun 2019), conducting provider testing (Mar-Apr 2019), data collection (Jun-Dec 2019), data compilation and analyses (Jan-Mar 2020), and publishing (May 2020). The ABS compiles FATS on an ad hoc basis, relying on user funding.

In collecting the data, ABS classified the enterprises based on significance level and profile. The significance level is divided into three categories: (1) MNEs with diversified industries across multiple countries; (2) MNEs with narrow industry operations; and (3) MNEs with single industry operations. Meanwhile, the profile is distinguished by the number of parent entities, the number of affiliates per parent, and the dollar value. In the recent survey, 80 percent of

respondents were MNEs with single industry operations; 15 percent were MNEs with narrow industry operations; and 5 percent were MNEs with diversified industries across multiple countries (**Table 1**).

**Table 1. ABS Sampling Framework in Data Collection for FATS**

Significance level	Profile	Target response rate	Approx. proportion of all units
MNEs with diversified industries across multiple countries	<ul style="list-style-type: none"> <li>• &lt;10 parent entities</li> <li>• Approx. 500 affiliates per parent</li> <li>• Most significant in dollar terms</li> </ul>	100%	5%
MNEs with narrow industry operations	<ul style="list-style-type: none"> <li>• 20 and 200 affiliates per parent</li> <li>• Medium dollar value significance</li> </ul>	95%	15%
MNEs with single industry operations	<ul style="list-style-type: none"> <li>• Represents majority of parents</li> <li>• One or two affiliates per parent</li> <li>• Lower dollar value significance</li> </ul>	80%	80%
<b>Total</b>		85%	100%

**Source: Abbondante & Batschi (2021).**

ABS was devising several innovative and efficient strategies in compiling FATS, such as building partnerships with both the government and MNEs. ABS formed a close collaboration with agency partners and promoted communication flow in real-time. The ability to make informed decisions as the project matured also facilitated flexibility during the initial stages of COVID-19. The close collaboration with partner agencies was also assisted by the development of complementary statistical releases. However, it is worth noting that an ad hoc basis in compiling FATS may not provide a comprehensive over time analysis, as strong demand for services data may require more regular iterations of datasets, such as annual data.

ABS established a partnership with MNEs in data collection by promoting low intrusion and higher collaboration. This approach successfully confirmed the ownership level of the survey, which was then reflected in data availability. ABS also promoted electronic surveys and customized reporting that decreased the burden on MNEs during the survey process (Abbondante & Batschi, 2021).

#### **4. Impediments or challenges**

In the process of data collection and compilation, the Department of Foreign Affairs and Trade (2021) stated in the pre-event evaluation that difficulties arise when requesting financial information pertaining to businesses outside the Australian economic boundary. There were also challenges in the interpretation of data relating to differences between accounting and economic statistics

frameworks. ABS conducted conceptual testing as part of the FATS data collection and compilation, the testing result can be used to improve the questionnaire as well as the method. ABS highlighted some challenges related to terminologies used, in particular, economic terminology such as 'affiliate' is not well understood, accounting terminology such as 'subsidiary' is preferred (Vitas, 2019).

Meanwhile, Drake-Brockman (2020) suggests that the sustained collection of services trade statistics (as part of the collection and compilation of FATS data) can be conducted as user-funded projects. Pursuing user-funded projects can be an opportunity to obtain various funding sources, but can also be an obstacle to achieve data sustainability, since data compilation depends on the availability of funds.

## **5. Best practices**

Some lessons learned from Australia's experience include the capabilities and efficient strategy play in increasing the engagement of affiliates in the data collection process. These strategies include low intrusion, the collaboration approach, customized reporting, and using electronic surveys. Close collaborations within government agencies and with MNEs are also essential in promoting communication flow in real-time. The ability to make informed decisions as the project matured also facilitated flexibility during the initial stages of COVID-19. The close collaboration with partner agencies was also assisted by the development of complementary statistical releases.

In addition, conceptual testing as part of the FATS data collection and compilation is important, as ABS conducted. From the testing, ABS can have some critical feedbacks or information, for example, providers understand the need for data collection and are happy to comply; and, most providers have access to the data required, particularly at the economic level (Vitas, 2019).

## **C. Thailand**

### **1. Regulation**

The compilation of international trade in services statistics in Thailand is authorized under the Bank of Thailand, Act B.E. 2485 (1942). The Act describes that for the purpose of providing statistics for the BOP, international investment position, and the financial statistics of the economy, the Bank of Thailand (BOT) requires those responsible for international monetary transactions and international investment transactions to submit the information pertaining to said transactions to the BOT, under the rules and conditions prescribed by the BOT and published in the Government Gazette.

### **2. Institution**

BOT is responsible for compiling FATS in Thailand. BOT as a compiler is supported by other institutions, such as National Statistical Office (NSO), to compile economic and social statistics through surveys in order to then contribute to the compilation of economy accounts and satellite accounts. Another institution related to FATS compilation is the Department of Business Development (DBD), which is under the Ministry of Commerce. DBD is the institution that is responsible for business registration and collects basic information about the company through financial registration. BOT as the main compiler coordinates with DBD to manage the database of company registry and financial report as well as to use the database as a source of data for FATS.

### **3. Implementation**

The primary source for foreign direct investment compilation in Thailand is direct reporting on financial accounts in regards to international investment positions (SBC3/1 Form). Any resident entity in Thailand having a non-resident shareholder of 1% or more voting shares in a non-resident company outside of Thailand is required by law to file this report to the Bank of Thailand within five months of the reference year's end date. The collection of FDI is based on the direct investment link between residents and non-residents, which is determined by the idea of influence that is expressed in the ownership of 10% or more voting shares (according to the BPM6 concept). Although the FDI framework is used as the main data source in creating FATS, these issues are characterized by fundamentally distinct concepts.

FATS is based on the concept of control, which refers to the capacity to employ the majority of the administrative authority, lead a business, establish a strategy, and carry out operations. The controlling investor's economic actions can subsequently be attributed to the affiliates. It is typically required to identify the ultimate controlling institutional unit (UCI) in order to then assign the attribution to the right investor.

The Statistics and Information System Department (SID) of the BOT assigns the External Sector Survey and Processing Team to collect and compile International Investment Position statistics, including FDI stock statistics. Then, the External Sector Survey and Processing Team conducts surveys on International Investment Positions and External Debt that could not be captured through the International Transactions Report System (ITRS).

Thailand compiles FATS using pre-existing administrative data. To obtain FATS variables, all data sources relevant to the topic of interest must be reviewed to ensure that all accessible resources are completely integrated. During this investigation, it was discovered that some of the components needed for the compilation of inward FATS variables already existed but were scattered throughout several data-gathering organizations. Given Thailand's decentralized statistical system's features, a high level of collaboration among all parties involved is therefore a critical success factor.

#### **4. Impediments or Challenges**

A collection of pilot FATS variables is established through early inter-agency collaboration. According to Tattawasart (2011), during the first stages of constructing FATS, there were a number of constraints that highlighted the presence of room for growth, particularly in terms of variables and classifications, such as:

- 1) Data on the ultimate governing institutional unit (UCI) is unavailable. Although the IIP5-CDIS6 statistical framework is utilized to retrieve the population of affiliates, this instrument only shows the majority of ownership. The minority-owned and indirect controlling units cannot be identified under this principle. As a result, the number of FATS firms acquired via this procedure is highly likely to be underestimated.
- 2) Inward FATS variables are derived by connecting variables from several databases, some of which may or may not have been completely consistent or matched. Therefore, it is necessary to perfect the coding procedure in order to allow cross-database data matching.
- 3) FATS data may be seen as a by-product of other data compilations. As a result, some variables may not be available immediately. Hence, the scopes, coverage, frequency, and timeliness of the surveys or other channels through which the inputs are received can be reassessed through continuous collaboration with relevant agencies, considering the mutual advantages that can be derived by all parties involved.

#### **5. Best Practices**

Based on Thailand's experience in compiling inward FATS, several best practices may apply to other economies, including:

- a. Administrative data is a powerful resource when compiling FATS. Business registration database and their annual reports are a good alternative to compile FATS for economies that have no specific FATS survey.
- b. FATS compilation with administrative data requires an even more close coordination with all relevant stakeholders that are responsible for company registration, company annual report, and other existing surveys.

### **D. Indonesia**

#### **1. Regulation**

Statistics Indonesia (Badan Pusat Statistik/BPS) is regulated by Law Number 16, 1997 on Statistics. Statistics Indonesia has some main responsibilities, i.e.:

1. To provide data to both the government and public. This data is derived from its comprehensive statistical activities and is comprised of periodic information on the structure and growth of the economy, social change, and development. These statistics may be derived from its own research and surveys as well as from other government departments as secondary data.
2. To assist the statistics division of government departments and other institutions in developing a statistical system that can establish a work program and a periodic reporting scheme.

3. To develop and promote standards to be incorporated in the implementation of statistical techniques and methods, and to provide necessary services in the field of education and training in statistics.
4. To establish cooperation with international institutions and other countries for the benefit of Indonesia's statistical development.

FATS compilation in Indonesia is briefly mentioned in Law Number 16, 1997 on Statistic and the Manual on Statistics of International Trade in Services (MSITS) 2010. However, Indonesia has no specific regulations pertaining to trade in services statistics nor FATS compilation and data collection.

## **2. Institution**

Statistics Indonesia is a Non-Ministry Government Agency that directly reports to the President. It is instituted by Law Number 16, 1997 on Statistics; Government Regulation Number 51, 1999 on Statistics Undertakings; Presidential Decree Number 166, 2000 on Status, Task, Function, Authority, and Organizational Structure of the Non- Departmental Government Institution; Presidential Decree Number 178, 2000 on Organizational Structure and Task of the Non-Departmental Government Institution; Presidential Decree Number 163, 1998 on College for Statistics; Executive Act Number 001, 2001 on The Organization and Task of Statistics Indonesia; and Executive Act Number 101, 1998 on The Organization and Task of College for Statistics.

Statistics Indonesia collects and compiles a wide range of socioeconomic indicators, including FATS. Statistics Indonesia started to collect inward FATS in 2013 through a pilot survey and secondary data compilation. This is in accordance with experts' view that the statistics bureau in an economy has a role in conducting the pilot survey, as mentioned in the Workshop on Statistics of International Trade in Services for the South-East Asian countries in Ha Noi - Viet Nam, 2010 (UNSTATS, 2010).

## **3. Implementation**

FATS compilation in Indonesia follows the Manual on Statistics of International Trade in Services (MSITS) 2010. Foreign-affiliated companies are those with a foreign share ownership (individually) of more than 50 percent. In preparing the implementation of FATS, Statistics Indonesia conducted the literature study as an initial step in 2012. Piloting of inward FATS was then conducted in 2013 to identify the sampling framework, challenges of data collection, the most effective survey implementation, and the appropriate questionnaire model. The piloting also provided an initial overview of FATS activities in Indonesia, commonly located in the center of economic activity.

Statistics Indonesia implemented two main methods in FATS compilation, i.e., secondary data compilation and a FATS survey on enterprises. Secondary data was collected from public enterprises and banks that published annual reports. Statistics Indonesia can apply either secondary data or surveys, or

both. For example, Statistics Indonesia pursued only secondary data compilation in 2015, 2018, and 2020. Meanwhile, in 2019 and 2021 Statistics Indonesia combined secondary data compilation with a survey. Since 2018, Statistics Indonesia has collected FATS data regularly on an annual basis. In 2021, Statistics Indonesia also conducted a literature study to collect and compile outward FATS.

Statistics Indonesia conducted an inward FATS survey on enterprises in 2019 and used non-probability sampling. The sample covered all sectors in Indonesian ISIC Rev.4 (KBLI 2015 except several sectors i.e., public administration and defence; compulsory social security (O); activities of households as employers; undifferentiated goods- and services-producing activities of households for own use (T); Activities of extraterritorial organizations and bodies (U)). The survey was paper-based and self-enumerated.

#### **4. Impediments or challenges**

Some challenges in Indonesia's FATS collection and compilation include:

- a. Inward FATS cannot be fully explored due to the limited data coverage of foreign affiliates. Thus, there is a lack of identification of affiliates that are included in the FATS survey.
- b. Low response rates and some incomplete and inconsistent questionnaire responses made the survey less favourable than the use of administrative data for FATS compilation.
- c. Improvements in strategic relationships between Statistics Indonesia and relevant ministries/agencies are required to optimize the available secondary data, since administrative data related to FATS are under several institutions (such as the Central Bank of Indonesia or the Ministry of Investment).
- d. The burden on the enterprise and the data collection cost is high, since Indonesia has several surveys. Statistics Indonesia needs to optimize the existing enterprise/establishment surveys conducted by internal subject matters (such as Manufacturing Survey, Business Characteristic Survey, and Hotel Survey) in order to minimise the cost.

#### **5. Best practices**

In terms of the data collection method, the enterprise survey can provide a more comprehensive FATS by including output, employment, value-added, export-import of goods and services, and the number of enterprises. In comparison, secondary data is limited to some variables. Nevertheless, the enterprise survey also has notable disadvantages, which include the fact that it is costly and that it may add burden on companies (since Statistics Indonesia already has a significant amount of surveys, making it cumbersome). In addition to this, respondents found the questions related to FATS challenging to answer, not only because they are cumbersome, but also because some

may require disclosing confidential information. Thus, to minimize these limitations, in 2021, the enterprise survey plans to be integrated into other surveys conducted by Statistics Indonesia, like the Manufacturing Survey, Business Characteristics Survey, and Hotel Survey.

## 5. Tracking Mechanism

As part of the follow-up activity of the workshop, a tracking mechanism is conducted to support the workshop participants in carrying forward the results and lessons. Prior to the workshop, all APEC economies were invited to participate in this tracking mechanism. However, participation is voluntary, where economies who were willing to partake in the activity sent the post-workshop activity out of their own volition. Among the invitations delivered by the APEC secretariat, Indonesia and Russia confirmed their willingness to engage with the tracking mechanism.

### Indonesia

Indonesia highlighted three activities that were presented in the workshop, which are: (1) virtual discussion with FATS' stakeholders; (2) mapping potential existing databases that may be relevant to compile FATS; and (3) formulating possible suggestions and recommendations in order to support the availability of FATS.

After the workshop, Statistics Indonesia conducted a discussion internally (held in August 2021) across the subject matter to map and identify existing data that has the potential to compile FATS. Relevant to this activity, Statistics Indonesia added several questions to the current survey, requiring more detailed information on business ownership, which is essential in considering the population of foreign affiliates.

Moreover, Statistics Indonesia also corresponded with the Ministry of Investment (Indonesian Investment Coordinating Board) and Financial Services Authority to obtain administrative data that may help in compiling FATS. Several datasets have been received; however, it still has not satisfied the requirement. Continuous communication is still conducted with all these sources of data.

Third, Statistics Indonesia conducted Focus Group Discussions on Statistics on International Trade in Services (SITS), which was held from October 29th to 30th 2021. The FGD discussed the needs of SITS for Mode 3 or Foreign Affiliates Statistics (FATS) and its application in trade negotiation, which was delivered by the Ministry of Internal Affairs. The representative of the Ministry of Investment (Indonesia Investment Coordinating Board) also shared the availability and possibility of using investment data in an online single submission (OSS) database for FATS compilation. Other participants also attended the FGD, including several directorates under Statistics Indonesia (i.e., Directorate of Financial Statistics, IT and Tourism; Directorate of Distribution Statistics; Directorate of Expenditure Statistics; and Directorate of Production Statistics), the Central Bank of Indonesia (Bank Indonesia), the Ministry of Trade, and the Indonesian Financial Services Authority (OJK). In the forum, the

Ministry of Trade shared their perspective on the FATS needed from the negotiation process of trade agreements.

Some highlighted points from the FGD are: (1) SITS and FATS are important for trade negotiations; (2) OSS database under the Ministry of Investment is one of the potential data sources to identify inward FATS companies; (3) coordination and collaboration are needed between ministries and agencies to collect SITS and FATS; and (4) to be more effective, stakeholders/data users need to improve their awareness on SITS and FATS to contribute through the MoU or legal partnership.

In addition, Statistics Indonesia is currently formulating possible suggestions and recommendations in order to support the availability of FATS in Indonesia. The recommendation is still in progress and is expected to be completed by 2022.

**Table 2. Post Workshop-Activity in Indonesia**

No	Objective	Activity	Success Criteria	Realization
1	Increasing awareness of FATS	Conducting virtual discussions with potential FATS compilers, such as the Statistics Bureau, Central Bank, Investment Promotion Board, or any relevant institutions.  Conducting virtual discussion with FATS users, such as trade negotiators, policy makers, academics, and researchers.	Conducting a minimum of 1 virtual discussion	First week of August, 2021
2	Mapping existing database for compiling FATS	Communicating and coordinating with relevant institutions to identify and map the availability of FATS data  Mapping the challenges or difficulties in providing data for FATS compilation	Conducting a minimum of 1 virtual discussion  List of challenges	2 FGDs have been conducted on September and October 2021
3	Providing suggestions and recommendations	Formulating possible suggestions and recommendations in order to support the availability of FATS data	Suggestions and recommendations	In Progress: expected to complete in 2022

**Figure 1. Additional Questions in Indonesia’s Medium and Large Manufacturing Survey**

BLOK II : KARAKTERISTIK PERUSAHAAN (LANJUTAN)					
<b>210. Persentase permodalan per 31 Desember 2021</b>					
a. Pemerintah	<input type="text"/>	%	d. Asing/Luar Negeri	<input type="text"/>	%
b. Perusahaan/Lembaga Non Keuangan	<input type="text"/>	%	e. Lembaga Nirlaba	<input type="text"/>	%
c. Perusahaan/Lembaga Keuangan	<input type="text"/>	%	f. Perorangan	<input type="text"/>	%
<b>Jumlah a+b+c+d+e+f</b>				<b>100</b>	%
<b>211. Jika isian Rincian 210.d. lebih dari atau sama dengan 10%, maka isikan informasi pemegang saham asing (urutkan dari kepemilikan saham terbesar):</b>					
No.	Nama	Negara	Bidang usaha	Kepemilikan saham	
(1)	(2)	(3)	(4)	(5)	
1.					%
2.					%
3.	Lainnya				%

## Russia

Russia confirmed its willingness to participate in the tracking mechanism. Russia has published the Roadmap of the Strategy of Statistical Activity of the Bank of Russia for 2021-2025. Any activities related to FATS may be conducted in the following years. The official publication of statistics of foreign branch activities is planned for 2025. The roadmap aims to maximize the satisfaction reaped from the expanding needs of the economy and society, with information provided by quality, reliable statistics on the economy of external and financial sectors of the member’s economy.

Specific for trade in services statistics, the roadmap aims to compile statistics of foreign trade in services by delivery methods and the size of resident enterprises, in accordance with the CPC classification (Central Product Classification, Version 1.1, UN, 2005).

## 6. Recommendation

The objectives of the project are: (1) to strengthen the understanding and capability of APEC Economies on the nature of services-related statistics in mode 3; (2) to map challenges faced in the compilation of mode 3 statistics; and (3) to share experiences and exchange knowledge to address challenges faced when compiling data.

Referring to the responses of the pre-event evaluation on mapping difficulties in compiling the statistics, major impediments in compiling statistics for mode 3 include the lack of a legal framework; the lack of resources such as human resources, funding, and infrastructure; and the lack of data availability to compile FATS.

Based on the experiences of several APEC economies, several recommendations that are possibly relevant and can apply to APEC as a whole include:

**First, introducing a legal framework as a basis to compile statistics in mode 3.**

The lack of a legal framework has caused challenges in collecting data for FATS. In order to increase the response rate, a sufficient regulatory framework should be in place to support the economy in compiling FATS. Deeming the survey as mandatory together with strong enforcement (such as penalties for companies that do not submit the survey) is expected to increase the response rate. In return, the data compiler must be responsible for protecting the data that has been obtained from foreign affiliates.

**Second, starting the compilation by utilizing existing relevant statistics.**

Organizing separate surveys to collect data for FATS compilation is costly in terms of human resources, time, infrastructure, and the burden on respondents (i.e., foreign affiliates). Experiences from several APEC economies show that FATS can also be obtained by compiling pre-existing data from various related parties. By using this approach, the economy can reduce costs, as well as the burden on respondents and compilers.

**Third, improving the coordination between data users and compilers is crucial.**

Provision of data tends to be demand-driven. Experiences of some APEC economies show that a strong coordination between users and compilers is necessary in identifying the essential data needed for policy formulation. Knowing that the compiler tends to have limited data and resources to establish FATS, users can lend a helping hand by providing compilers with the resources needed for data collection.

## References

- Abbondante, M., & Batschi, B. (2021). *Australian Outward Foreign Affiliates Trade*.
- APEC PSU. (2017). *APEC Services Competitiveness Roadmap ( ASCR ) Baseline Indicators*. November.
- Atkins, M., & Roesler, M. (2017). *Foreign direct investment in Canada by ultimate investing country*. <https://www150.statcan.gc.ca/n1/pub/13-605-x/2017001/article/54868-eng.htm>
- Bank of Thailand. (2021). *Metadata: Foreign Affiliates Statistics - Inward FATS Classified by Business*. [https://www.bot.or.th/App/BTWS\\_STAT/statistics/DownloadFile.aspx?file=EC\\_XT\\_069\\_ENG.PDF](https://www.bot.or.th/App/BTWS_STAT/statistics/DownloadFile.aspx?file=EC_XT_069_ENG.PDF)
- Barefoot, K. (2013). *Foreign Affiliate Trade Statistics: Data Sources and Compilation*. <https://unstats.un.org/unsd/trade/events/2013/jakarta/13-US-BEA-US-case-of-FATS-data-sources-and-compilation.pdf>
- Canadian Investment Abroad*. (2020).
- Drake-Brockman, J. (2020). *New Data Links Outward Investment in Services to Australia's Services Export Performance*. <https://iit.adelaide.edu.au/news/list/2020/09/25/new-data-links-outward-investment-in-services-to-australias-services-export>
- Eurostat. (n.d.). *Glossary: Foreign affiliates statistics (FATS)*. Retrieved January 4, 2022, from [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Foreign\\_affiliates\\_statistics\\_\(FATS\)](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Foreign_affiliates_statistics_(FATS))
- Fernandez-Stark, K., & Gereffi, G. (2019). Global value chain analysis: a primer (second edition). *Handbook on Global Value Chains, May 2011*, 54–76. <https://doi.org/10.4337/9781788113779.00008>
- Group, B. & T. L. (n.d.). *International Investment and Trade in Services Survey Act*.
- IMF. (n.d.). *Balance of Payments and International Investment Position Statistics (BOP/IIP)*. Retrieved January 4, 2022, from <https://data.imf.org/?sk=7A51304B-6426-40C0-83DD-CA473CA1FD52>
- IMF. (1995). *International Transactions Reporting Systems*. 15–26. [https://www.elibrary.imf.org/configurable/content/books\\$002f071\\$002f00544-9781557754707-en\\$002fch03.xml?t:ac=books%24002f071%24002f00544-9781557754707-en%24002fch03.xml](https://www.elibrary.imf.org/configurable/content/books$002f071$002f00544-9781557754707-en$002fch03.xml?t:ac=books%24002f071%24002f00544-9781557754707-en%24002fch03.xml)
- IMF. (2021). *Dissemination Standards Bulletin Board (DSBB)*.
- Magdeleine, J. (n.d.). *Foreign Affiliates Statistics (FATS)*. <https://unstats.un.org/unsd/tradeserv/workshops/Rio/Presentations/11.WTOJoscelynFATSRio.pdf>
- Mann, M. A. (2021). *Measuring Mode 3 using FATS*.
- OECD. (n.d.). *Manual on Statistics of International Trade in Services*. Retrieved January 4, 2022, from <https://www.oecd.org/sdd/its/manualonstatisticsofinternationaltradeinservices.htm>
- Shanmugam, K., & Ramasamy, K. (2018). *Malaysian Investment in the Global*

- Economy: A Study on the Foreign Affiliates Performance. September, 19–21.*  
[http://www.oecd.org/iaos2018/programme/IAOS-OECD2018\\_Shanmugam-Ramasamy.pdf](http://www.oecd.org/iaos2018/programme/IAOS-OECD2018_Shanmugam-Ramasamy.pdf)
- Spinelli, F., Rouzet, D., & Zhang, H. (2018). Networks of foreign affiliates: Evidence from Japanese micro-data. *World Economy*, 43(7), 1841–1867.  
<https://doi.org/10.1111/twec.12963>
- StatsAPEC. (n.d.).
- Tattawasart, O. (2011). *Toward FATS and Beyond: The Case of Thailand.*  
<https://www.bis.org/ifc/events/5ifcconf/tattawasart.pdf>
- Chapter 46—International Investment and Trade in Services Survey, (2013).  
<https://www.govinfo.gov/content/pkg/USCODE-2013-title22/html/USCODE-2013-title22-chap46.htm>
- UNCTAD. (2017). The role of the services economy and trade in structural transformation and inclusive development. *United Nations Conference on Trade and Development*, 09139(June), 17–9139.
- UNSTATS. (2010). *Workshop on Statistics of International Trade in Services for the South-East Asian countries.*
- Vitas, B. (2019). *Economic Activity of Foreign Owned Businesses in Australia.*  
[https://unece.org/fileadmin/DAM/stats/documents/ece/ces/ge.20/2019/mtg1/6\\_Australia.pdf](https://unece.org/fileadmin/DAM/stats/documents/ece/ces/ge.20/2019/mtg1/6_Australia.pdf)
- Whichard, O. G. (2000). *United States Statistics on Trade in Services. August*, 14–17.
- WTO. (2010). *Measuring Trade in Services. November*, 55.
- WTO. (2021). *World Trade Statistical Review 2021.*  
[https://www.wto.org/english/res\\_e/statis\\_e/wts2021\\_e/wts2021\\_e.pdf](https://www.wto.org/english/res_e/statis_e/wts2021_e/wts2021_e.pdf)