



Thirty-Second Meeting of the IMF Committee on Balance of Payments Statistics

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BOPCOM—19/03
For discussion

Final Report of the Task Force on Informal Economy

ACRONYMS

AML/CFT	Anti-money laundering and Countering Financing of Terrorism
COMESA	Common Market for Eastern and Southern Africa
ESS	External Sector Statistics
EU	European Union
GDP	Gross Domestic Product
IE	Informal Economy
IFFs	Illicit Financial Flows
IFUs	Intelligence Financial Units
IIP	International Investment Position
ILO	International Labour Organization
IMF	International Monetary Fund
NA	National Accounts
ROW	Rest of World
RTACs	Regional Technical Assistance Centers
<i>2008 SNA</i>	<i>System of National Accounts, 2008</i>
STA	IMF's Statistics Department
SBRs	Statistical Business Registers
TFIE	Task Force on Informal Economy
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNECE	United Nations Economic Commission for Europe
UNODC	United Nations Office on Drugs and Crime

EXECUTIVE SUMMARY¹

At its 2017 meeting, the International Monetary Fund's (IMF) Committee on Balance of Payments Statistics (the Committee) endorsed the creation of a Task Force on the Informal Economy (TFIE) with a two-year mandate.² The primary objective of the TFIE was to take stock of country practices with the aim of identifying data collection techniques and compilation methods that are relevant for addressing the coverage of the informal economy (IE) in external sector statistics (ESS). Accordingly, this report includes a set of encouraged country practices for compiling cross border informal economy (IE) data as identified by the TFIE members and by countries that participated in the TFIE Phase 1 survey.³ The Report also presents recommendations to the Committee for endorsement. With this report, the TFIE concludes its work. Questions to the Committee are included at the end of the Executive Summary.

Countries use a range of statistical practices to cover the IE. These practices are determined by the availability of source data, resources, and statistical capacity. User interest and policy needs also play a role in determining which components are addressed. In general, IE coverage, in both the national and international accounts, requires additional source data, including through surveys. However, the unavailability of resources and statistical capacity, especially in developing countries, remain key impediments.

Following the TFIE's Phase I work on producing an inventory of economies' experiences in collecting, compiling, and disseminating IE data, work in Phase II culminated with the successful launch of a web platform aimed at enabling peer learning. The platform disseminates metadata for 24 economies, including the country members of the TFIE, covering almost 57 compilation practices⁴ on IE in the international accounts and/or national accounts (rest of the world).

Key Findings

For the international accounts, the key compilation practices identified are as follows:

- Balance of payments compilation practices for IE activities center on the current account, especially on goods. This is followed by personal transfers and workers' remittances in the secondary income account; and travel, transport, prostitution, gambling and smuggling of migrants' services in the services account. Few

¹ This report was prepared primarily by Ms. Rita Mesias (Secretariat, TFIE), with inputs from Messrs. Malik Bani Hani and Sakai Ando (all from STA Balance of Payments Division, STABP) and contributions from the TFIE members. The TFIE was chaired by Mr. Paul Austin, Deputy Division Chief, STABP.

² The TFIE's Terms of Reference and membership are presented in Annex I and II, respectively.

³ For more information on the TFIE Phase 1 survey results, see <https://www.imf.org/external/pubs/ft/bop/2018/31.htm>

⁴ The Common Market for Eastern and Southern Africa (COMESA), the European Central Bank, and Eurostat are included in the list of members of the TFIE and prepared reports.

economies have started compiling IE data for some components in the capital and financial accounts; and even fewer are undertaking such work for their international investment position (IIP) statistics.

- In general, economies use a combination of direct and indirect sources available to estimate the size of IE activities. Some economies have developed direct (data-specific) surveys for some components or draw on micro studies or surveys designed for other purposes as inputs for estimations.
- Economies use indirect estimation methods that are generally aligned to either national accounts (NA) compilation, or to economic modelling.
- The availability of separately-identifiable data on IE activities remains limited.
- Data sources, enterprise registration, and methodology are the major challenges reported by compilers.

Final Recommendations

The following are the key recommendations of the TFIE to improve the collection and compilation of IE data:

- The dissemination of encouraged collection, compilation, and dissemination practices should continue through the dedicated web platform, which serves as a resource tool to assist other compilers in improving the coverage of their international accounts.
- Collection techniques and compilation methods should be tailored to take account of available data sources, statistical capacity, resources, and an adequate assessment of costs/benefits for including a specific IE activity in the current data compilation processes. Due to the broad range of activities included in the IE and the limited resources available for its compilation, delineation of the “typologies” (informal, underground, or illegal breakdowns) should assume secondary importance with as accurate an estimation of the totals remaining the priority.
- Coordination between ESS and NA compilers should be stepped up with a view to moving towards a more integrated approach in addressing coverage of the IE data in the balance of payments and rest of world (ROW) accounts. The exchange of experiences and knowledge between NA and balance of payments compilers, and, also, between regulatory/policy agencies (such as Customs) and statistics-producing agencies could be used to develop, for example, statistical models to estimate IE. National compilers are also encouraged to use innovative data sources, such as those provided by Intelligence Financial Units (IFUs) and law enforcement agencies to develop IE estimates.

- Greater emphasis on IE data issues specific to the financial account and the IIP is needed, and national compilers are encouraged to extend initiatives beyond the current account, where applicable. At a minimum, national compilers should, where necessary, use international databases in mirror exercises—such as the BIS’ International Banking Statistics (particularly deposits)—to detect and address data gaps.
- The identification of regional trends—and corresponding regional approaches that take account of statistical capacity—provides an informed basis for tackling the issue of IE data coverage. Estimation methods may be specific to the most important buckets of informal, underground and illegal activities in countries or regions. For instance, some Latin-American countries may focus on drug trafficking or illegal mining data; some European countries on arms trafficking and smuggling of migrants; and some African countries on cross border informal trade and other illicit flows.
- Where possible, adequate legal and institutional frameworks to encourage the collection and compilation of IE data is recommended. Furthermore, the legal framework (including confidentiality), organizational structure, and coordination among different compilation agencies are critical to efforts in improving measurement. A concrete example is the statistical regulations in place in EU countries to compile some illegal economic activities: illegal drugs, trafficking of alcohol and tobacco, and prostitution.
- A reassessment of the current concept of the IE with a view to greater harmonization is needed. This would also strengthen cross-country data comparability.
- The use of big data could complement current traditional data sources means for IE compilation. Examples include drug trafficking and remittances (for additional information see Annex IV).
- The IMF and other international organization should strengthen technical assistance and training to assist economies in identifying data gaps and in compiling data on relevant IE activities. This will require an assessment of areas where the IE is of statistical relevance.

Questions for the Committee:

- *Does the Committee have any views on the TFIE’s recommendations for improving the compilation of IE statistics?*
- *Are there other IE areas or compilation methods that the Committee consider that require additional attention?*

I. INTRODUCTION

1. High quality international accounts are vital for economic policy making and research. A leading cause of imperfections in these statistics is the omission of cross-border transactions and/or positions that are outside the scope of the regular statistical inquiries and data collection systems. Some activities fall under the statistical radar because they are hidden or illegal, while others escape detection because they are undertaken by the informal sector. Addressing coverage gaps is critical for data accuracy and reliability.
2. At its 2017 meeting, the IMF Committee on Balance of Payments Statistics (the Committee) endorsed the creation of a Task Force on the Informal Economy (TFIE). The objective of the TFIE was to take stock of country practices for identifying data collection techniques and compilation methods that are relevant for addressing the coverage of informal economy (IE) transactions and positions in the international accounts. This work was completed with the delivery of this report to the Committee in October 2019.
3. During the 2018 Committee meeting, the TFIE delivered a preliminary report with the results and findings of a survey-based inventory exercise targeting compilers of international accounts (balance of payments) and national accounts (NA). The survey requested from 185 economies information on the institutional and legal frameworks, methodology, collection, compilation, and dissemination practices of IE data. Economies' current challenges and work plans for IE data were also enumerated. The survey was supplemented with reports on selected topics by TFIE members, and with the findings of the IMF's NA Survey of Regional Technical Assistance Centers' (RTACs) economies in 2017.
4. The main survey findings were as follows:
 - Balance of payments compilation practices for IE activities center on the current account, especially on goods. This is followed by personal transfers and workers' remittances in the secondary income account; and travel, transport, prostitution, gambling and smuggling of migrants' services in the services account. A few economies have started compiling some components in the capital and financial accounts; and even fewer are undertaking such work for their international investment position (IIP) statistics.
 - In general, economies use a combination of direct and indirect sources available to estimate the size of these activities. Some economies have developed direct (data-specific) surveys for some components of IE activities; or draw on micro studies or surveys designed for other purposes as inputs for estimations.
 - Economies use indirect estimation methods that are generally aligned to either NA compilation, or to economic modelling.
 - The availability of separately-identifiable data on IE activities remains limited.

- Data sources, enterprise registration, and methodology are the major challenges reported by compilers.

5. The preliminary report presented the following preliminary recommendations: (i) selecting, documenting, and disseminating best collection, compilation, and dissemination practices used in economies currently compiling IE activities data to assist other compilers in improving the quality of the international accounts; (ii) encouraging coordination between international accounts and NA compilers in moving towards a more integrated approach in addressing the coverage of the IE data in the balance of payments and rest of the world (ROW) accounts; (iii) highlighting IE data issues specific to the financial account and IIP to encourage national compilers to extend initiatives beyond the current account, where applicable; and (iv) supporting a more targeted approach to compiling IE estimates.

6. Moreover, the preliminary report indicated that the TFIE would undertake the following activities in its second year:

- Review the IE data collection and compilation practices as reported in the survey, individual reports, and other supporting materials;
- Identify the encouraged collection, compilation, and dissemination practices of IE data; and advise and support the IMF Statistics Department's (STA) work on developing appropriate modes of publicizing these practices; and
- Provide broad (non-country specific) recommendations for improving current compilation methods.

7. At the 2018 Committee meeting, there was general agreement on the preliminary recommendations of the TFIE. Moreover, coordination, mirror data exercises, and data sharing across countries were identified by the Committee as an important means of compiling or validating IE estimates. The Committee endorsed the proposed Phase II work program (see Table 1) of the TFIE and supported the use of an online portal for disseminating the documented practices.

Table 1. TFIE Phase II Work Program⁵

Actions/Deliverables	Time for Implementation
<i>Individual Reports (IRs)</i> <ul style="list-style-type: none"> • Select List of Improvements for IRs • Prepare and deliver IRs 	February 2019 March 2019
<i>Country Data Reports (CDRs)</i> <ul style="list-style-type: none"> • Select countries for the CDRs • Prepare and deliver CDRs 	March 2019 May 2019
<i>Informal Economy Platform</i> <ul style="list-style-type: none"> • Prepare the IE Platform 	July–September 2019
<i>TFIE Report to the Committee</i>	August–September 2019

II. THE NEED FOR IMPROVING THE COLLECTION AND COMPILATION OF IE DATA IN MACROECONOMIC STATISTICS

8. To keep abreast of advances in globalization and financial integration, considerable progress and initiatives—with international organizations as key drivers—have been undertaken to improve the coverage and quality of external sector statistics (ESS).⁶ Despite these successes, data gaps remain, even while globalization and greater financial integration have brought new challenges. A key source of these gaps relates to limited or nonexistent coverage of IE activities in the ESS collection and compilation systems of some countries.

9. Limited data coverage contributes to a distorted view of national current and financial accounts and is a source of global asymmetries. The impact of omissions of IE activities in the international accounts is to accentuate “errors and omissions” in line with imbalances resulting from imperfections in source data—particularly when only one leg (for instance, of the current versus the financial account) of the cross-border transaction results in under coverage. Calculating gross domestic product (GDP) involves measuring the production activity of resident producer units. Both declared and undeclared production activities must be considered if a full and accurate picture of the value of production/consumption in a given period is to be obtained. Failure to properly include IE activities lead to accounting inconsistencies if these activities are recorded in the financial accounts, but not in the production and income accounts or vice-versa. Moreover, differences between economies, or

⁵ The coordination of the Phases I and II Work Program was via the exchanging of emails and video conferences. Individual reports were prepared on selected topics by the TFIE members and Country Data Reports were prepared by participating countries in the IE survey.

⁶ For an evolution of economic and financial statistics, see Robert Heath (2015) What Has Capital Flow Liberalization Meant for Economic and Financial Statistics? IMF Working Papers (WP 15/88).

within an economy over time, in how the IE is compiled/estimated contribute to global asymmetries in the international accounts.

10. Several initiatives are currently in place to bring attention on the relevance of collecting and/or estimating the IE data. These are outlined in the Annex III.

III. COUNTRY PRACTICES IN THE COLLECTION AND COMPILATION OF IE DATA

11. Twenty-four economies, including the country members of the TFIE, prepared almost 57 compilation practices⁷ on how they include IE activities data in their international accounts and/or national accounts (rest of the world). Below is a summary of how this selected group of economies gathered information about on certain types of IE activities, compilation methods, and data sources. Information about current challenges for work in this area was also presented. The complete versions of these contributions are posted in the IMF platform created for this purpose.

A. Goods Account

12. Twenty-one economies reported 35 compilation practices for several IE activities in goods. Most of the reports were in two IE activities: illegal drugs (12 economies) and smuggling of tobacco and/or cigarettes (9 economies). The IE activities included in goods are: exports and imports of goods non-registered in customs, illegal drugs, online purchase of goods, shuttle trade (that includes legal and illegal goods), smuggling of cigarettes, smuggling of specific legal and illegal goods,⁸ and smuggling of other goods.⁹ Colombia, Sweden, and United Kingdom compile illegal drugs data only for preparation of the NA. United Kingdom does the same for smuggling of alcohol and smuggling of cigarettes and tobacco as well.

13. Most of the practices in goods were implemented to collect imports breakdowns (22 country practices) followed by exports and imports breakdowns (11 economies). See Figure 1 below.

⁷ The Common Market for Eastern and Southern Africa (COMESA), the European Central Bank, and Eurostat are included in the list of members of the TFIE and prepared reports.

⁸ Legal goods include authorized (tea, rice, sugar, vegetable oil, chocolate, textile and apparel, footwear, and home appliances) and authorized conditional (hygienic products, cigarettes, toys, among others) and illegal goods include narcotics and liquors (Iran).

⁹ Other goods include tobacco, clothes, and wearing apparel, and other low-value manufactured products (Greece).

Figure 1. Goods: Data Breakdowns				
Type of IE	Country	exp/imp	imp	re-export
goods non-registered 1/	Russia	■		
illegal drugs	Austria		■	
	Belgium		■	
	Greece		■	
	Hungary	■		
	Lithuania		■	
	Malta		■	
	Netherlands	■		
	Portugal		■	
	Romania		■	
	Sweden	■		
	UK		■	
oil re-export	Kyrgyz			■
online purchase	Israel		■	
shuttle trade	Azerbaijan	■		
	Rwanda	■		
smuggling of alcohol	Greece		■	
	Lithuania		■	
	Romania		■	
	UK		■	
smuggling of cigarettes/tobacco	Austria		■	
	Belgium	■		
	Greece		■	
	Hungary		■	
	Italy		■	
	Lithuania		■	
	Portugal	■		
	Romania		■	
	UK		■	
smuggling of goods	Nigeria	■		
	Uganda	■		
smuggling of illegal goods	Iran		■	
smuggling of no-illegal goods	Iran	■		
smuggling of other goods	Greece		■	

Source: 2018 TFIE Informal Economy Data Survey and Metadata reported by economies participating in the survey.

1/ Goods non-registered in customs, goods below the trade threshold, e-commerce goods, and goods in informal and shadow economy.

14. For goods, consistency between NA and balance of payments is observed in most of the country practices reported. Coordination between compilers of these two macroeconomic data sets is key not only to efficiently use collection and compilation resources but also to benefit from statistical methods, either in NA or balance of payments, that are in a better position to produce IE data. Box 1 highlights the Russian Federation's practice of coordinating between NA and balance of payments to produce IE data for goods and services.

Box 1. The Russian Practices for Encouraging Coordination Between NA and Balance of Payments to Produce IE Data

There is a constant exchange of information used in compiling the balance of payments between the Bank of Russia and the Statistics Service which compiles the NA and “Input-Output” Tables.

Aggregates reflecting external economic transactions that are not observed using direct statistical methods and that are estimated based on the application of models, are subject to both internal controls and reconciliation with other balance of payments components, and additional verification when compiling the NA aggregates and “Input-Output” tables.

Thus, for example, when a substantial imbalance in the aggregates of volumes of goods’ resources and their use arise, the SNA and the balance of payments compilers conduct joint consultations and decide either to adjust the respective aggregates of the NA, or to undertake a correction of the method and model for estimating the aggregates of merchandise imports that are not captured by customs statistics.

Regarding data on exports and imports of “Travel” services compiled within the framework of balance of payments compilation, the information is used by the SNA compilers in constructing the use of disposable income account.

15. A combination of several data sources is in place for the compilation of IE in the goods accounts (also, this is applied for the rest of accounts in the balance of payments). This is because IE data, in most of the cases, cannot be collected by direct methods from the data sources available due to the characteristic of being hidden or the difficulty of accessing to these data. Therefore, a combination of several data sources seems to be the best (or indirect) proxy for an adequate compilation of IE data considering these limitations. Additionally, few countries indicated that some data sources are used to validate methods and data source currently in place. The data sources presented mainly by compilers are administrative data available in many national/local institutions such as customs office, statistical offices, central bank, tax offices, non-for-profits organizations, crime reports (from drug, tobacco, and alcohol departments, and anti-drugs agencies), police offices, and banking systems (credit cards). These data sources are complemented by ad-hoc surveys, by information available in national census, by information produced in the UN (UNODC), and several experts’ studies (such as those from Growth for Knowledge (GfK) and Klynveld Peat Marwick Goerdeler (KPMG)¹⁰).

¹⁰ For the compilation of smuggling of tobacco/cigarettes, Hungary uses in addition to administrative data, information produced by GfK using waste-analysis.

16. Methods used for the compilation of IE goods are concentrated on those related to the demand-based approach. Some countries use this method in combination with the modeling administrative data and/or the supply-based approach and others indicated that they use extrapolation methods for the calculation of these data.

17. Many countries indicated that several assumptions and estimations are used. In many cases, these assumptions or estimations cannot be verifiable. Also, countries noted that even in cases where data sources exist, accessibility is often difficult. Others noted that lack of financial resources precluded regular updates of studies/benchmark surveys and the development of new ones relevant to IE data compilation. Many countries are aware that the risk of double counting is high. The growing use of new information technology (online purchases) and the presence of crypto assets also increase the coverage gap of the IE goods in the official data.

18. In some regions, IE cross-border activities play an important role. COMESA has implemented two projects to address the gap or lack of compilation of IE data in goods and services in several African countries. These projects are outlined in Box 2.

Box 2. COMESA Programs on Small Scale Cross-Border Trade (SSCBT)

Currently, there are two COMESA programs on SSCBT:

- The Great Lakes Project which focuses on Uganda, Rwanda, and Democratic Republic of Congo (DRC). Since Uganda and Rwanda have existing SSCBT data collection efforts, the intervention is to build the capacity of DRC in this area.
- The COMESA Cross Border Trade (CBT) Initiative which aims at increasing SSCBT flows in the COMESA/Tripartite region.¹¹ The specific objective of the program is to facilitate SSCBT flows among targeted countries through effective policy and government reforms, institutional capacity building, improving border infrastructure and better data collection and monitoring. The program will initially focus on the following border posts: (1) Mwami/Mchinji between Zambia and Malawi; (2) Kasumbalesa between Zambia and DRC; (3) Chirundu between Zambia and Zimbabwe; and (4) Tunduma/Nakonde.

The scope of the new COMESA of SSCBT statistical data collection will involve both merchandise trade and services trade. This will be augmented by data from the existing surveys being done by Uganda and Rwanda. These two countries' data collection is largely guided by the *(East African Community (EAC) Manual (EAC, 2014))*. It is envisaged that by end of 2019 nine countries will be engaged in some SSCBT data collection framework.

The new surveys will adopt a combination of full one-month collection and/or two consecutive weeks collection (from which a monthly estimate will be obtained). The COMESA SSCBT Manual guides the overall data collection process under the CBT Initiative.

19. Other initiatives were developed by Eurostat to collect and compile IE activities that are not explicitly presented in the official data. This is the case of trafficking of arms. Eurostat has set up a baseline approach for compilation this IE activity and Box 3 presents a summary with the definition, compilation methods, and potential data sources for the compilation of this IE activity.

¹¹ The Tripartite region is a conglomeration of COMESA, SADC, and EAC countries.

Box 3. Trafficking of Arms—Eurostat

Scope, methodology, compilation practices, and data sources: An illegal firearms trafficker could be defined as a person who deals or trades in illegal firearms. Such traffickers are considered to be self-employed and their economic activity is classified according to the latest version of the Statistical classification of economic activities in the European Community (NACE rev. 2) as 'Other retail sale not in stores, stalls or markets'.

The available data on illicit firearms trafficking is scarce overall. One of the common datasets used as a proxy for quantities is data on seizures from the police and customs services.¹² Therefore, supply-side models would be better fitted to model the illegal firearms trade. However, data on seizures represent only a fraction of all illicit firearms trafficking, so adjustments for the perceived detection rate are necessary. Another issue with seizures is that the data tends to be quite volatile, so models should be based on long-term trend analysis of the time series if possible. Other input data for a supply-side model could be firearm diversions (thefts/losses); crimes committed with firearms; firearms registries; and the legal production and trade of firearms.

For prices, data might be available in Member State interior ministries, police records, investigative reports and research. In conflict zones, prices tend to increase as security decreases.¹³ Another data source on prices of illicit firearms could be the cryptomarkets.¹⁴ It has to be noted, however, that evidence suggests prices quoted in the Dark Net tend to be above the average for a number of countries.¹⁵

As with other IEAs, data from estimates are usually calculated for a given benchmark year and then extrapolated. Proxies that could be used for this purpose are to be found in crime statistics, for instance by using firearms-related homicide rates.

Challenges: Unlike most other smuggled products firearms are durable. In this regard, attention should be paid to potential misclassification issues and/or risks of double-counting.

¹² According to the European Systems of Accounts 2010 (paragraph 6.10) these are classified as uncompensated seizures (K.4).

¹³ Florquin, N. (2014), '[Arms Prices and Conflict Onset: Insights from Lebanon and Syria](#)', *European Journal on Criminal Policy and Research*, Vol. 20-3, pp. 323-341.

¹⁴ As discussed during the third meeting of the task force on the compilation of statistics on IEA in NA and BOP.

¹⁵ Global Financial Integrity (2017), '[Transnational Crime and the Developing World](#)', Washington, p. 14.

B. Services Account

20. Six economies reported IE compilation practices in services: prostitution (Austria, Belgium, Hungary, Lithuania, and Romania), travel (Israel), and non-reported health services (Austria). Three countries prepared breakdowns for exports and imports, two economies prepared only for exports and the rest did not provide information about the breakdowns.

21. Several data sources are used for the preparation of these IE activities in services. These include administrative data of NGOs, other civil organizations, immigration offices, and other relevant institutions as well as internet information and expert's studies. The method mostly used is the supply-based approach, with some countries combining this approach with modeling of administrative data. Finally, in terms of challenges, data compilers presented similar challenges to those indicated for the compilation of IE activities in goods.

22. Eurostat has set up the baseline for compilation of smuggling of migrants. Box 4 presents a summary of the methods proposed by Eurostat for the compilation of this IE activity.

Box 4. Smuggling of Migrants–Eurostat

Scope, methodology, compilation practices, and data sources

There are two main types of agreement for migrant smuggling: (i) In the 'pay-as-you-go' agreement, no final destination is predetermined, and the speed and direction depend on migrants' ability to pay at each step. In this case, the role of the smuggling coordinator could be reduced from the base model; (ii) The 'full package' agreement is a less common model, where migrants pay the fee in their country of origin to a smuggler that arranges several services to have the migrant transported to the destination country.

Models on migrant smuggling could be reduced to estimating the effects of border-crossing and transiting-through. These models could disregard migrants' consumption of smuggling services before the point of entry. Frontex data suggest that EU border crossing is in many cases facilitated by non-resident smugglers, therefore only a part of the related transactions is relevant for the EU Member States balance of payments. However, transiting through the EU is more likely to be fully operated by resident service providers and in this case transactions between the migrants and the facilitators should be recorded as transportation and travel services.

Data sources on migrant smugglers' fees could be police reports, interview-based media publications and information from social media. On the number of smuggled migrants, EU data compilers could use data on detections by police authorities and Frontex. However, these data should be adjusted with detection rates to reflect the true numbers. In more global terms data on irregular migration is available at the International Organization for Migration.

Challenges

Trafficking of migrants is not among the so-called 'core' illegal economic activities for the compilers of macroeconomics statistics in the EU. However, the financial flows related to migrant smuggling have an increasing significance especially for Member States that are in the main migration routes.

While data on irregular migrant headcounts and on service prices constitutes the main issue for the statistical compilation, there are also other challenges in capturing correctly the related economic effects in the balance of payments statistics.

- Firstly, smuggling of migrants is often closely related to corruption and bribery which is an illegal activity of a different category. Furthermore, the overlap of the different concepts and categories therefore brings a potential risk of double counting.
- Secondly, due to the specific nature of illegal migration the issue of migrants' consent to be smuggled is a not straight-forward one and it is 'possible that smuggled migrants might retract their consent during a smuggling operation'. There are thus borderline cases for which the concept of an economic transaction may or may not hold and corresponding adjustments would be necessary.

C. Primary Income Account, Secondary Income Account, and Financial Account

23. Three economies—Hungary for drug dealer; Israel for non-Palestinian and Palestinian workers; and Rwanda for informal workers—identified IE compilation practices for the primary income account. The estimations relate to compensation of employees, debits; and only Rwanda prepares estimates of credits as well. As data sources, they use administrative data and surveys. In the case of Israel, estimation of non-Palestinian worker compensation includes illegal and unregistered workers. In all the cases, consistency with NA was cited.

24. Four countries—Austria, Jordan, and Peru for remittances; and the US for personal transfer)—prepared reports for IE activities in the secondary income account. Peru compiles estimates for credits (net recipient of remittances); and the US for debits (net provider of personal transfers). The sources are administrative, census, and survey data. Jordan, Peru, and the US uses these data only for the balance of payments, while Austria indicated consistency between the NA and balance of payments is observed. Jordan indicated that there are challenges in accurately estimating illegal foreign workers, while the US noted that the current model used for estimation may not reflect changes in remittances behavior over time. Peru's remittances from abroad through informal channels are estimated as the difference between administrative data available for this item and total of remittances calculated by using the number of workers abroad and the average remittance.

25. The Russian Federation presented a report on its experience in evaluating transactions of individuals related to the acquisition of real estate abroad. See Box 5 for additional information on this country practice.

Box 5. Russian Federation – Acquisition of Real Estate Abroad by Individuals***Scope, methodology, compilation practices and data sources:***

The Bank of Russia with the participation of large banks and the members of money transfers systems conduct a survey of individuals about international money transfers on a semi-annual basis. The questionnaire model includes items of the following categories: remittance direction, individual resident status, transfer purpose, currency, transfer amount, counterparty countries, duration of payment system usage. Based upon the information received, the share of the operations related to real estate acquisition by individuals abroad in the total amount of remittances is defined.

Data based on reporting banks' financial statements together with all necessary information from the results of the survey conducted among the payment system operators, are used to reflect the balance of payments transactions on real estate abroad. The indicators are formed on the balance basis as the difference between funds, which are transferred in order to purchase real estate abroad, and the funds received from the sale of real estate abroad.

The import of services, related to purchasing real estate abroad—such as legal services, attorney's fees and realtors' fees, are assessed (evaluated, estimated) by experts. The amount of total remittances is reduced by the amount of services import.

In order to estimate the position of assets in case of real estate, the Bank of Russia has developed a model based on the expert evaluation. The total sum of stocks at the end of the reporting period is calculated as the sum of the accumulated value of investments in the real estate abroad at the beginning of reporting period and the sum of the current period, less the estimated amount of other changes in real estate abroad.

Other estimated changes are evaluated, taking into consideration that the part of real estate abroad will be used by the individuals as a future permanent residence. The number of migrants according to the data of the Russian Statistical Agency and the average cost of the real estate abroad is taken into consideration in the valuation process.

Challenges

In order to improve the IIP compilation process connected to the real estate abroad, the Bank of Russia is currently elaborating the methodological approach to the revaluation process by taking into account the market value changes and dynamics of the real estate prices in different economies.

Within the international working group on elimination of cross-country discrepancies in Coordinated Direct Investment Survey, a number of meetings were held on "mirror statistics". These meetings have given an opportunity to identify significant discrepancies in mirror data on individual investment in real estate abroad. The Russian Federation has also begun to carry out such mirror comparisons on a regular basis with the Eurasian Economic Union (EAEU) members.

IV. INFORMAL ECONOMY WEBPAGE

26. The IMF has developed an [informal economy webpage](#) to enable peer learning on country methods to compile/estimate the IE. The information covers collection and compilation techniques used by selected economies to estimate informal, underground and/or illegal cross-border transactions and position in their international accounts. The objective of this platform is to provide a knowledge exchange resource tool for national compilers to benefit from the experiences of their peers, thereby augmenting the capacity development program in macroeconomic statistics offered by the IMF.

27. The platform also provides links to the IMF Committee on the Balance of Payments home page and other international organizations' initiatives and work on IE data compilation.

28. The webpage will be maintained by STA's Balance of Payments Division (STABP). As an initial step to attract additional content, emails announcing the website launch were sent out to IMF member countries inviting submissions of any significant work being done on the topic. To ensure future content updates, STABP staff would actively identify practices through:

- the balance of payments/IIP metadata submitted by countries that will prompt further enquiry by STABP staff (the metadata questionnaire has a question related to coverage of informal transactions in the current account);
- STA technical assistance missions and contact through IMF regional technical assistance centers (including with STA national accounts long-term advisors);
- STA regional training workshops on international trade in goods and services statistics, which invite country presentations on the topic;
- awareness through STABP staff attendance at regional/international statistical forums; and
- a bi-annual survey (starting in 2021), similar to the one conducted in first year of the TFIE work program.

29. Based on practices identified through the above channels, STABP will shortlist and follow up with targeted countries using the individual economy report template. Selection of encouraged practices for dissemination on the webpage will be done by STABP. The aim is to showcase an expanded selection of practices particularly to the financial account, and also to have a range applicable to countries with differing statistical capacity. Practices that highlight how big data are used would also be accorded priority.

V. OTHER RELATED ISSUES

A. Illicit Financial Flows

30. Within the last decade, illicit financial flows (IFFs) have garnered increasing attention initially within the context of poverty alleviation, and growth and development; and more recently—through global spotlight on corruption, transparency and financial integrity.

31. There is considerable debate over the definition of IFFs. In general, these flows can be considered as including a few broad categories:

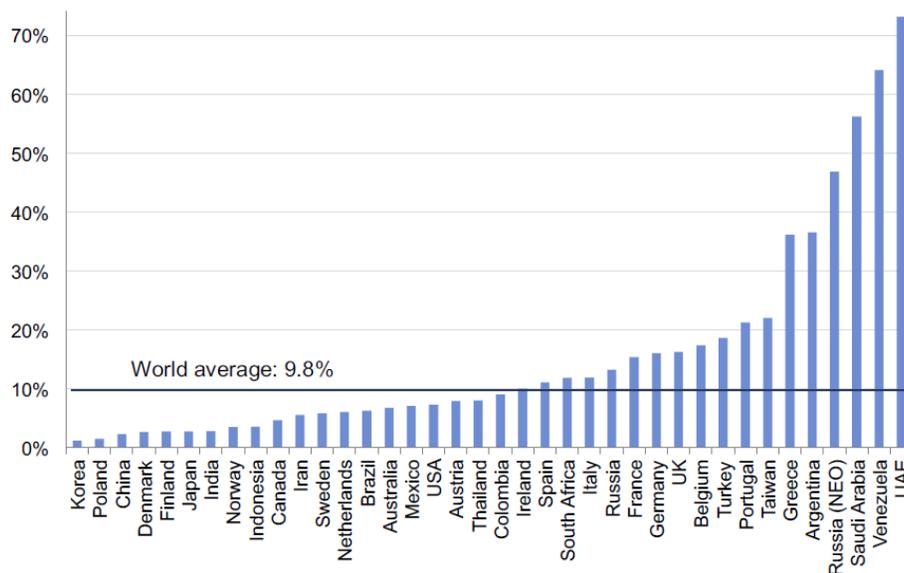
- *First*, funds generated from illegal acts (corruption, smuggling, drug trafficking); or
- *Second*, funds not being necessarily from an illegal source, but whose transfer can be illegal (for example with the purpose of evading taxes – known as tax evasion); or
- *Third*, funds channeled into an illegal purpose (terrorist financing). This can come from a legal or illegal source.
- Finally, funds that are the result of tax avoidance—as opposed to tax evasion (i.e., the second category)—activities.

32. IFFs are difficult to measure because they are hidden, and they come from a wide variety of sources, making more challenging to have one single method to quantify all of them. Some methodologies focus on mirror trade analysis and balance of payments mismatches, while others look at the extent of trade price deviations and estimates of money laundering or offshore wealth as well as profit shifting activities (see Box 6).

Box 6. Measuring Wealth in Offshore Centers

Measuring the wealth in offshore centers has been attempted by combining multiple sources of statistics. For example, Alstadsæter et al. (2018) estimates the offshore wealth held by 38 countries by combining (1) the statistics published by the central bank of Switzerland on the bilateral bank deposits, portfolios of equities, bonds and mutual fund shares, and (2) the bilateral bank deposit data published by BIS for multiple offshore centers, including Guernsey, Hong Kong, the Isle of Man, Jersey, Luxembourg, and Macao. They also discuss the robustness of the estimation using (1) the discrepancy between the global portfolio liabilities and assets and (2) the Panama Papers. Such an approach of combining scattered sources can be useful for the compilers of financial accounts when direct measurement is not feasible.

Estimated offshore wealth in percent of GDP, 2007



Alstadsæter, Johannesen, Zucman (2018), "Who owns the wealth in tax havens? Macro evidence and implications for global inequality," *Journal of Public Economics*

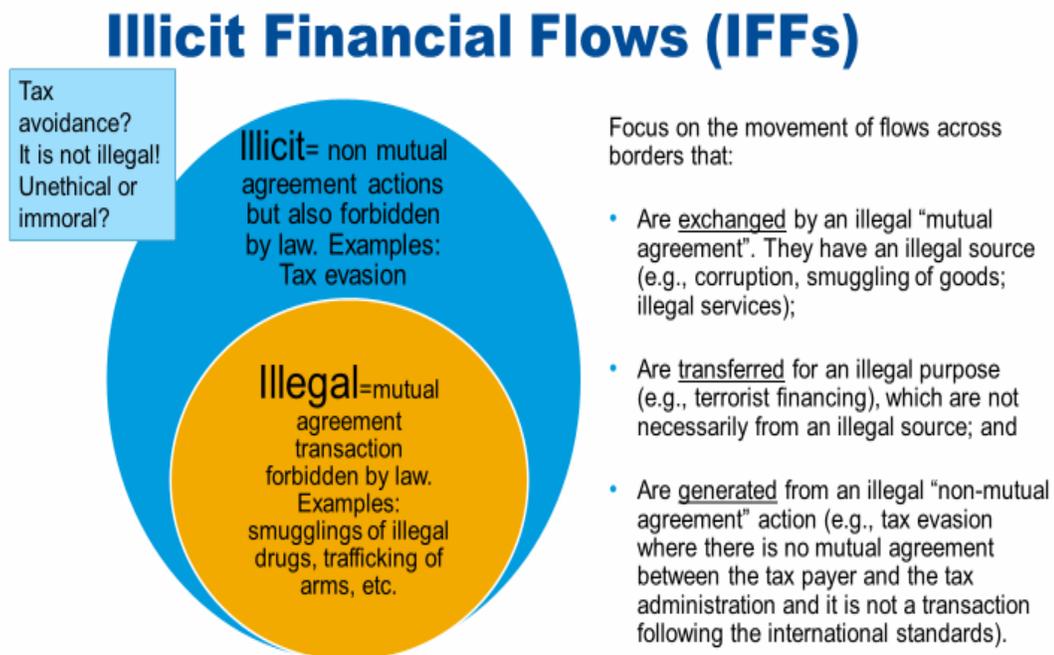
33. No one methodology gives clear and definitive results. For example, mirror trade data analysis estimates the size of IFFs based on the discrepancy between reported trade value by the exporter and the importer. But there are several measurement issues that may explain the differences; and which do not originate in illegal activities.

34. Now while the IE does not necessarily relate to illegal activities, it can facilitate the movement of IFFs, just as much as the formal economy does not necessarily relate to just legal activities since large sums of illicit flows have also been moved through banks. Some of

the available estimates of IFFs tend to capture a mixture of illegal tax evasion and legal tax avoidance. While transfer mispricing facilitates tax avoidance by multinational companies, it is not necessarily illegal and reflects more the weakness of the current tax system in taxing cross-border profits of multinational companies.

35. For the purpose of the TFIE work, illegal activities are mutual agreement transactions forbidden by law, therefore, legal activities such as tax avoidance (that could be unethical but not illegal) and illicit activities without mutual agreement such as tax evasion are not included under the IE coverage (see the Figure 2). Currently, there are different initiatives to measure IFFs by country and as global indicators. One of these initiatives is presented in Box 7.

Figure 2. IFFs vs Illegal Activities



Box 7. United Nations Conference on Trade and Development (UNCTAD) and United Nations Office on Drugs and Crime (UNODC) Illicit Financial Flows (IFFs) Task Force

In January 2019, a Task Force on the Statistical Measurement of IFFs (TFIFF) was launched by UNCTAD jointly with UNODC. The UNCTAD and UNODC are co-custodians of the Sustainability and Development Goals (SDGs) indicator 16.4.1 which focuses on illicit financial flows (IFFs): “*Total value of inward and outward IFFs, in current United States dollars.*” As custodian agencies, they have developed drafts of a framework to measure IFFs and guidelines to test this framework. The current work focuses on illegal activities, leaving aside tax evasion or tax avoidance practices. The framework uses a “dual” approach, namely generation (flows linked to supply and demand of illicit goods and services) and management (the use of the illicit flows) of IFFs, with the objective of measuring the total cross-border IFFs per country. It is envisaged to pilot this statistical framework in a number of volunteer countries in Latin America (Colombia and Peru are currently participating in pilots for two specific areas, illegal drugs and illegal mining) and other regions (Nigeria, Tanzania, Senegal, and Zambia have already accepted to participate in country pilots). The IMF STA is participating in this task force.

The TFIFF will be looking at statistical data and methodologies, such as the use of NA and balance of payments for measuring IFFs. During the first TFIFF meeting, the UNODC and UNCTAD presented a preliminary definition of IFFs: “*Illicit Financial Flows describe the value illicitly generated, transferred, or utilized that is moved from one country to another.*” Two clarifications were provided regarding this definition: (i) it only includes flows (i.e., stocks/positions are excluded); and (ii) although IFFs could be domestic and cross-border activities, only the latter will be considered for the SDG Indicator 16.4.1.

In addition to the definition, tentative IFFs typology and classification were presented with the following characteristics:

- A typology that is: exclusive (each type of IFFs is classified exclusively into one category); exhaustive as much as possible (a realistic goal is to capture IFFs generally known in several countries); and feasible (countries with adequate information to populate the IFFs typology). The typology for IFFs proposed includes the following categories: (i) tax and commercial practices; (ii) illegal markets; (iii) theft-type and terrorism financing, and (iv) corruption. A controversial issue regarding this typology is that activities of one category can overlap activities of other category which could present problems of double counting. For instance, corruption activities could finance terrorism.
- For the classification, UNODC/UNCTAD linked the typology presented above with the *UNODC International classification of crime for statistical purposes (ICCS, 2015)*. A caveat presented by the meeting participants about the proposed classification was that neither the typology nor the classification follows international statistical standards.

The final version of the definition, concepts, classification, and typology of IFFs will be sent to the task force members for comments by the end of 2019.

VI. FINAL RECOMMENDATIONS

36. The following are the key recommendations of the TFIE to improve the collection and compilation of IE data:

- The dissemination of encouraged collection, compilation, and dissemination practices should continue through the IMF dedicated web platform, which serves as a resource tool to assist other compilers in improving the coverage of their international accounts.
- Collection techniques and compilation methods should be tailored to take account of available data sources, statistical capacity, resources, and an adequate assessment of costs/benefits for including a specific IE activity in the current data compilation processes. Due to the broad range of activities included in the IE and the limited resources available for its compilation, delineation of the “typologies” (informal, underground, or illegal breakdowns) should assume secondary importance with as accurate an estimation of the totals remaining the priority.
- Coordination between ESS and NA compilers should be stepped up with a view to moving towards a more integrated approach in addressing coverage of the IE data in the balance of payments and rest of world (ROW) accounts. The exchange of experiences and knowledge between NA and balance of payments compilers, and also between regulatory/policy agencies (such as Customs) and statistics-producing agencies could be used to develop, for example, statistical models to estimate IE. National compilers are also encouraged to use innovative data sources, such as those provided by IFU and law enforcement agencies to develop IE estimates.
- Greater emphasis on IE data issues specific to the financial account and the IIP is needed, and national compilers are encouraged to extend initiatives beyond the current account, where applicable. At a minimum, national compilers should, where necessary, use international databases in mirror exercises—such as the BIS’ International Banking Statistics (particularly deposits)—to detect and address data gaps.
- The identification of regional trends—and corresponding regional approaches that take account of statistical capacity—provides an informed basis for tackling the issue of IE data coverage. Estimation methods may be specific to the most important buckets of informal, underground and illegal activities in countries or regions. For instance, some Latin-American countries may focus on drug trafficking or illegal mining data; some European countries in arms trafficking and smuggling of migrants; and some African countries in cross border informal trade and other illicit flows.

- Where possible, adequate legal and institutional frameworks to encourage the collection and compilation of IE data is recommended. Furthermore, the legal framework (including confidentiality), organizational structure, and coordination among different compilation agencies are critical to efforts in improving measurement. A concrete example is the statistical regulations in place in EU countries to compile some illegal economic activities: illegal drugs, trafficking of alcohol and tobacco, and prostitution.
- A reassessment of the current concept of the IE with a view to greater harmonization is needed. This would also strengthen cross-country data comparability.
- The use of big data could complement current traditional data sources means for IE compilation. Selected practices are highlighted in Annex IV.
- The IMF and other international organization should strengthen technical assistance and training to assist economies in identifying data gaps and in compiling data on relevant IE activities. This will require an assessment of areas where the informal economy is of statistical relevance.

Annex I. Task Force on The Informal Economy: Terms of Reference

Background

The discussion during the recent IMF Balance of Payments Statistics Committee (the Committee) meeting of October 2017 focused on the need to address the issues associated with covering the informal economy cross-border statistics. The informal economy covers a broad typology comprising informal, underground, and illegal activities. These activities are generally outside the scope of the regular data collection programs because they are, for example, undertaken by, but not only, households or small-scale nonfinancial corporations and with a relatively low level of organization. They may not be registered and are therefore difficult to measure. Further, the boundaries of informal economy are not always clear as the informal, underground, and illegal activities may overlap with other activities that units may attempt to conceal because they are illegal, or incentives exist to evade government regulations. Therefore, covering informal economy in cross border statistics poses numerous challenges, including the lack of a consistent measurement framework across countries and the cost of data collection.

Objectives

The Task Force will have the primary objective of taking stock of country practices with a view to identifying data collection methods and compilation techniques that are feasible for addressing the coverage and consistency of informal economy in cross border statistics. This assessment would underpin the design of appropriate strategies to enhance the coverage of informal economy in cross-border statistics.

In line with the IMF's commitment to foster data accuracy and availability particularly in low income countries, the Task Force's deliberations and outputs would inform the broader work on the informal economy being undertaken by the IMF's Statistics Department (STA). In undertaking its work, the Task Force will build upon the work done by the *International Labor Organization* and the *Expert Group on Informal Sector Statistics (Delhi Group)*¹⁶ on measuring the informal sector and informal employment. The Task Force will also collaborate with the *Advisory Expert Group on National Accounts* and the *Inter-Secretariat Working Group on National Accounts*.

Rules of Procedure

The Task Force will meet and discuss by electronic means (i.e., mostly via email and occasionally, via teleconferences).

¹⁶ The Expert Group on Informal Sector Statistics, commonly known as the Delhi Group was established by the UN Statistical Commission in 1997 to exchange views on the measurement of the informal sector, document the data-collection practices, including definitions and survey methodologies followed by member economies, and recommend measures for improving the quality and comparability of informal sector statistics.

Governance and Participation

The IMF will chair the Task Force and provide secretarial support. It will comprise Committee Members representing economies and international organizations with an interest and relevant experience in compiling cross-border statistics on informal economy. Representatives from non-Committee member economies, where informal economy may represent a significant proportion of cross-border economic activity, will also be invited to participate in the Task Force.

Timeframe and Deliverables

The work will take place during February 2018–September 2019. The following key deliverables and timetable are currently envisaged:

- a. Preliminary report submitted at the next Committee meeting (draft report to be sent to the IMF by mid-September 2018).
- b. Final report to be presented at the October 2019 Committee meeting (draft report to be prepared by mid-September 2019).

**Annex II. Membership of the Task Force on Informal Economy
(As of September, 30, 2019)**

Chair

Paul Austin

IMF, Statistics Department

Members

Carlos Arturo Mora

National Administrative Department of
Statistics, Colombia

Andrea Milena Roncancio

National Administrative Department of
Statistics, Colombia

Themba Munalula

Common Market for Eastern and Southern
Africa (COMESA)

Cristina Pinheiro

European Central Bank

Carmen Picon

European Central Bank

Naglaa Nozahie

Central Bank of Egypt

Ilcho Bechev

Eurostat

Matthias Ludwig

Eurostat

Olaf Novak

Eurostat

Michael Frosch

International Labor Organization (ILO)

Thomas Alexander

IMF, Statistics Department

Antonella Baldassarini

Italian National Institute of Statistics
(ISTAT)

Rajeh Alkhdour

Central Bank of Jordan

Ubong Sylvanus Udoette

Central Bank of Nigeria

Consuelo Soto

Central Bank of Peru

Robert Pupynin

Bank of Russia

Chatchawan Intaruk

Bank of Thailand

Yuwawan Rattakul Boonyaleephan

Bank of Thailand

Emmanuel Ssemambo

Bank of Uganda

Ivo C. Havinga

United Nations

Sarah Atkinson

Bureau of Economic Analysis
United States

Secretariat

Rita Mesias

IMF, Statistics Department

Malik Bani Hani (Alternate)

IMF, Statistics Department

Sakai Ando (Alternate)

IMF, Statistics Department

ANNEX III. OTHER INITIATIVES RELATED TO THE IE IN INTERNATIONAL ORGANIZATIONS

UN Task Team on Exhaustive Business Registers¹⁷

The United Nations (UN) Committee of Experts on Business and Trade Statistics Committee considered the request of the Statistical Commission to establish global UN guidelines for statistical business registers (SBRs). The guidance is to consider the use of administrative data, the choice of statistical units in the context of globalization, and issues related to countries with large informal sectors. The following issues related to the informal sector were identified: (i) how to deal with the informal sector in the guidelines, given that the informal sector is quite large in almost all developing countries; and (ii) more guidance is needed on the coverage of the register in case of very small enterprises. In February 2019, an updated version of the UN Guidelines on Statistical Business Registers for Global Consultation was prepared and circulated for comments. Chapter 3 of this guideline was updated to cover difficult areas as non-market producers and non-observed economy, including informal sector and illegal activities. The Guidelines gives more detailed recommendations on the treatment of government units, corporations, not-for-profit institutions, self-employed persons, agricultural households/holdings, illegal activities, and extraterritorial organizations.

IMF Initiatives on Illicit Financial Flows (IFFs)

Over the last two decades, the IMF has been working on domestic and international policies related to money laundering and terrorist financing, in coordination with other stakeholders. The international framework for anti-money laundering and countering of financing of terrorism (AML/CFT) is a powerful tool in preventing the movement of IFFs. This framework requires countries to implement a series of measures to help identify and assess risks related to the country and put in a place a number of preventive measures to enable detection of such flows, as well as repressive measures to trace and recover IFFs. The IMF has been working with member countries to enhance their AML/CFT frameworks focusing both on strengthening the legal frameworks but also more importantly, ensuring that there is effective implementation of these measures.¹⁸

IMF Seventh Statistical Forum

This year's forum will focus on measuring the informal economy, and will take place during November 14–15, 2019, at the IMF Headquarters. The agenda include the following sections: (i) Definitions and Scope of the IE; (ii) Traditional Estimation Practices: Determining the Level and Growth of the IE; (iii) New Technologies and New Potential Data Sources-Innovation and Big Data; and (iv) Measuring Informal Cross-Border Flows (IFFs).

¹⁷ STA is a member of the Task Team on Exhaustive Business Registrars.

¹⁸ For additional information, see <https://www.imf.org/en/About/Factsheets/Sheets/2016/08/01/16/31/Fight-Against-Money-Laundering-the-Financing-of-Terrorism>

For the purpose of the IMF Statistical Forum, the IE broadly comprises (i) the production of goods and market services of households; and (ii) the activities of corporations (illegal; underground) that may not be covered in the regular data collection framework for compiling macroeconomic statistics. This scope of the IE considers not only the domestic activities, but also the cross-border transactions of resident units and reflects the need for a coherent macroeconomic statistics framework.¹⁹

¹⁹ For additional information, see at <https://www.imf.org/en/News/Seminars/Conferences/2019/03/25/7th-statistical-forum>

Annex IV. The Use of Big Data in the IE Compilation

Detecting Small-Scale Mines in Ghana

Illegal small-scale mining is a growing industry in many developing countries. In these mines, gold and other precious minerals are extracted in a low-tech, labor-intensive process. While these mines provide huge employment and income potential for poverty-stricken communities, they are also linked to environmental damages, health hazards, and social ills. However, since these small mining operations are mostly illegal, there is virtually no data to analyze their exact impact.

Michael Lanzetta and Elena Terenzi offer an overview of a collaboration between Microsoft and the Royal Holloway University, London, that applies deep learning to locate illegal small-scale mines in Ghana using satellite imagery and investigates their impact on surrounding populations and environment. The goal of the project is to enable better-informed policy decisions by relevant stakeholders. First, the team built an image classification model in Keras and scaled the training of the model using Kubernetes on Azure. Once the mines were identified, the team investigated the impact of those mines on surrounding environments and populations in Python. See more at <https://conferences.oreilly.com/strata/strata-eu-2018/public/schedule/detail/65501>

Big Data Helps Taiwan's Drug Trafficking Operations, Police

Kaohsiung police and prosecutors recent attributed the success of Taiwan's recent biggest-ever drug seizure to the newly established national big data center for illegal drugs.

Taiwanese police have seized more than four tons of illegal drugs in a nationwide operation running ahead of the Lunar New Year, and police attributed the success of the operation to the big data analytics, which was implemented a year ago.

Kaohsiung prosecutors told that police began collecting information ranging from addresses, phone numbers, license plate numbers, types of drugs, and drug ring connections. With that, more than 67 million call detail records, and a data set of 540,000 names and phone numbers have been utilized police drug trafficking operations as of the end of February.

Kaohsiung Chief prosecutor Wang Chieh-to explained that big data allows more-accurate predictions, better decisions, and precise interventions across the country, and has resulted in more successful operations over the past year.

Wang said that the big data analytics can help track down the main source of drugs with the aim of busting drug rings and halting the increase of drug abuse. In the long term, the database will also assist the Ministry of Health and Welfare with its drug rehabilitation efforts and to cut down on the number of drug users. See more at <https://www.taiwannews.com.tw/en/news/3413850>

Calculating Value Added of Prostitution with Multiple Data: A New Approach for Belgium

Stef Adriaenssens and Jef Hendricks

Economic output implies that underground sectors such as prostitution are taken into account. This article presents an innovative methodology to measure turnover and added value in prostitution based on a combination of observational and Internet data. The method is applied to Belgium. Turnover is broken down in transactions and price per segment. The starting point is an observation-based measure of turnover in one locational and visible segment of the market: window prostitution. Fundamental differences between segments make linear generalizations from one segment invalid. Therefore, we estimate the relative size of transactions in other segments (such as brothels or escort) with Internet data. In combination with measures of average price per transaction, a consolidated estimate of turnover in prostitution in Belgium is measured. Estimates of nonresident production are based on data on sex workers' country of origin. Several bootstrap replications allow for robustness checks of the delta-based standard errors. See more at <https://journals.sagepub.com/doi/abs/10.1177/1091142117734173?journalCode=pfrb>

Visualizing Global Remittances – Big Data Mapping of Bilateral Flows

By Dan Ewing

In an effort to better understand bi-lateral remittance flows and identify patterns across the various financial connections, McKinsey & Company leveraged data from the World Bank's 2011 bilateral remittance database that estimates flows across 215 countries and combined that with big data visualization techniques to map global remittance flows.

From this perspective on cross-border remittances, several trends become more visible. Here are a few:

Inter-regional flows: For many large regions with multiple countries, remittance flows concentrate on inter-regional flows among neighbors. For Europe, roughly half of flows occur within EU countries. Asia, Africa, and the Middle East also exhibit high degrees of proximate remittance flows with varying intensity.

Diaspora roots: For many large markets, the outbound flows of remittances map closely with the immigration heritage of those markets. US-based flows link strongly to Europe and Latin America. Flows across Asian countries flow heavily into mainland China and Hong Kong given the substantial overseas Chinese populations across the region. Middle Eastern flows reach deeply into Asia.

Concentrated Hubs: While nearly all countries see some remittance activity, there are clear beacons that attract the lion's share of volume from across the world. These magnet markets—China, India, Mexico, and Philippines—see a torrent of inflows from around the world. See more at <https://blogs.worldbank.org/peoplemove/visualizing-global-remittances-big-data-mapping-bilateral-flows>.