

International Transactions Reporting System (ITRS): challenges and opportunities to support monetary policies in Indonesia

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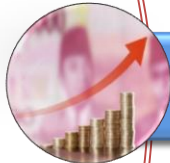
OUTLINE



ITRS Overview



ITRS in Practices



ITRS in Indonesia



The Use of ITRS in Indonesia



ITRS Challenges and Opportunities



Definition¹⁾

As a general rule, an ITRS is a data collection system that obtains data from banks and companies at the level of individual transactions. The most comprehensive “traditional” ITRS measures: (1) cash transactions with nonresidents that pass through domestic banks; (2) cash transactions that pass through enterprise accounts with banks abroad; (3) transactions on intercompany accounts with nonresident companies; (4) positions; and (5) noncash transactions. Statistics are compiled from forms submitted to/by domestic banks and from forms submitted by companies.

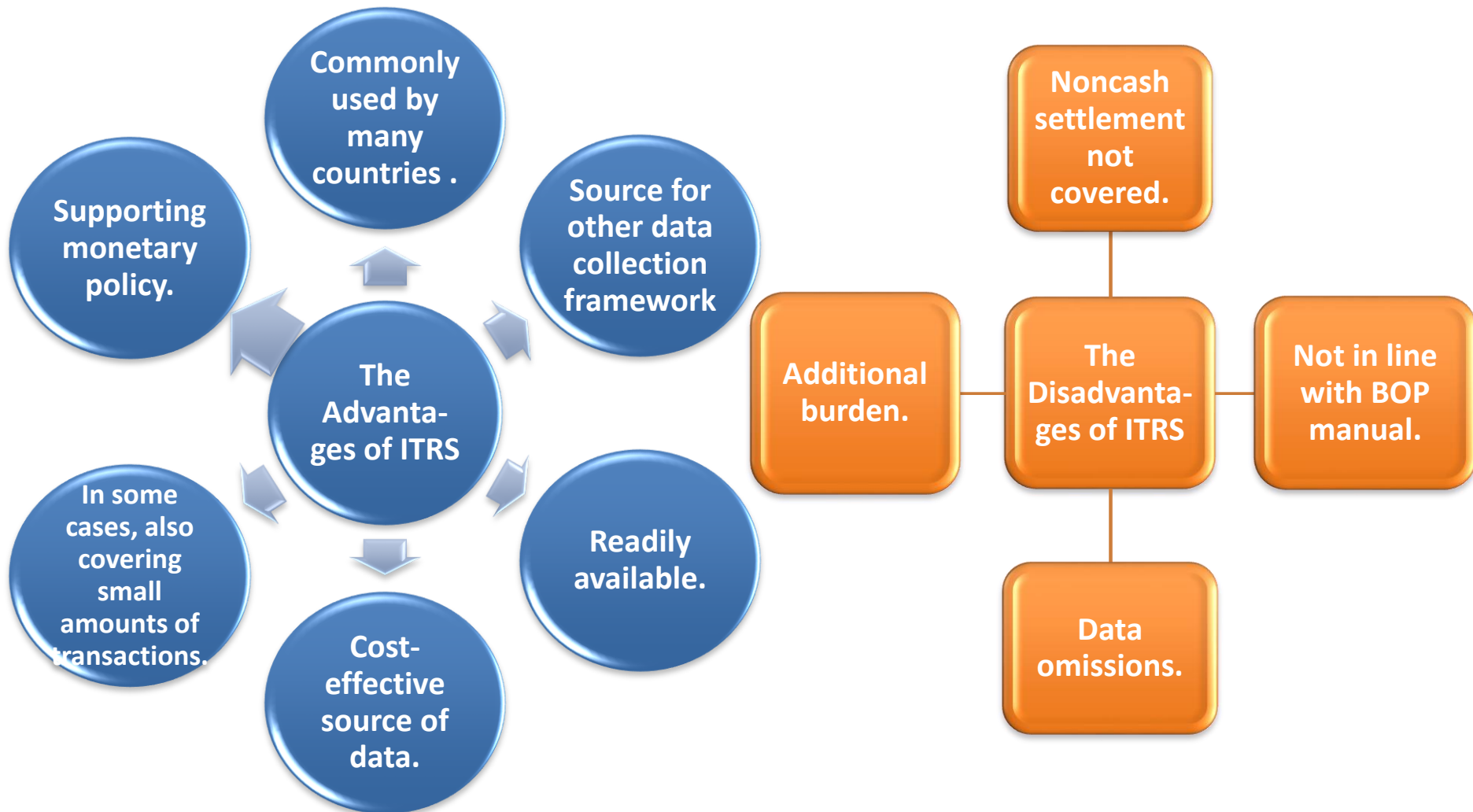
Purposes of ITRS

The ultimate goal of data collection provided by the ITRS is the compilation of Balance of Payments (BOP).

In common practice, the ITRS is usually defined as an international transaction reporting system through containing flow of funds of bank and customer transaction.

This discussion focuses on the ITRS through banks (which are called ITRS), and the goal is not only for the compilation of BOP.

¹⁾ Balance of Payments and International Investment Position Compilation Guide, Sixth Edition 2009



Countries using ITRS, among others:

Asia: Indonesia China, Philippine

Africa: Malawi, South Africa, Ghana

Europe: Ukraine, Poland, Hungary. Some of Europe countries have already moved to direct reporting system.

Purpose of ITRS:

Generally, the main purpose of ITRS is to support BOP and IIP.

Mechanism of ITRS:

Some countries implement ITRS base on closed system to keep consistency of total receipt and payment from international transactions with the total changes of bank's nostro and vostro. The banks submit a report to central bank commonly using online system.

The weakness & problems of ITRS:

The weakness of ITRS is the data received in cash basis, not in accordance with BOP guidelines that must be compiled by accrual basis. In many countries, the main problem of ITRS are data quality, i.e. how to convince the accuracy of the information of customer transactions that submitted by banks.

Background

BOP data source limitation, especially data related income, services and financial account from the asset side. Lesson from monetary crisis in 1997, that importance of comprehensive and accurate BOP is a must. Besides, there is the need for monitoring flow of funds data.

Implementation & legal framework

ITRS introduced in January 2000 based on Act No.24 of 1999 concerning The Foreign Exchange activities and Exchange Rate System.

Reporting mechanism

ITRS data reported electronically. The report based on closed system (total value of incoming and outgoing transaction must be equal to the total changes in nostro and vostro).

Data coverage

Cover all transaction (bank or the clients) affecting changes in the position of the bank's foreign financial assets or liabilities. Transaction above threshold (>\$10.000) cover information concerning the transactor, underlying transaction, receiving/paying bank, etc.

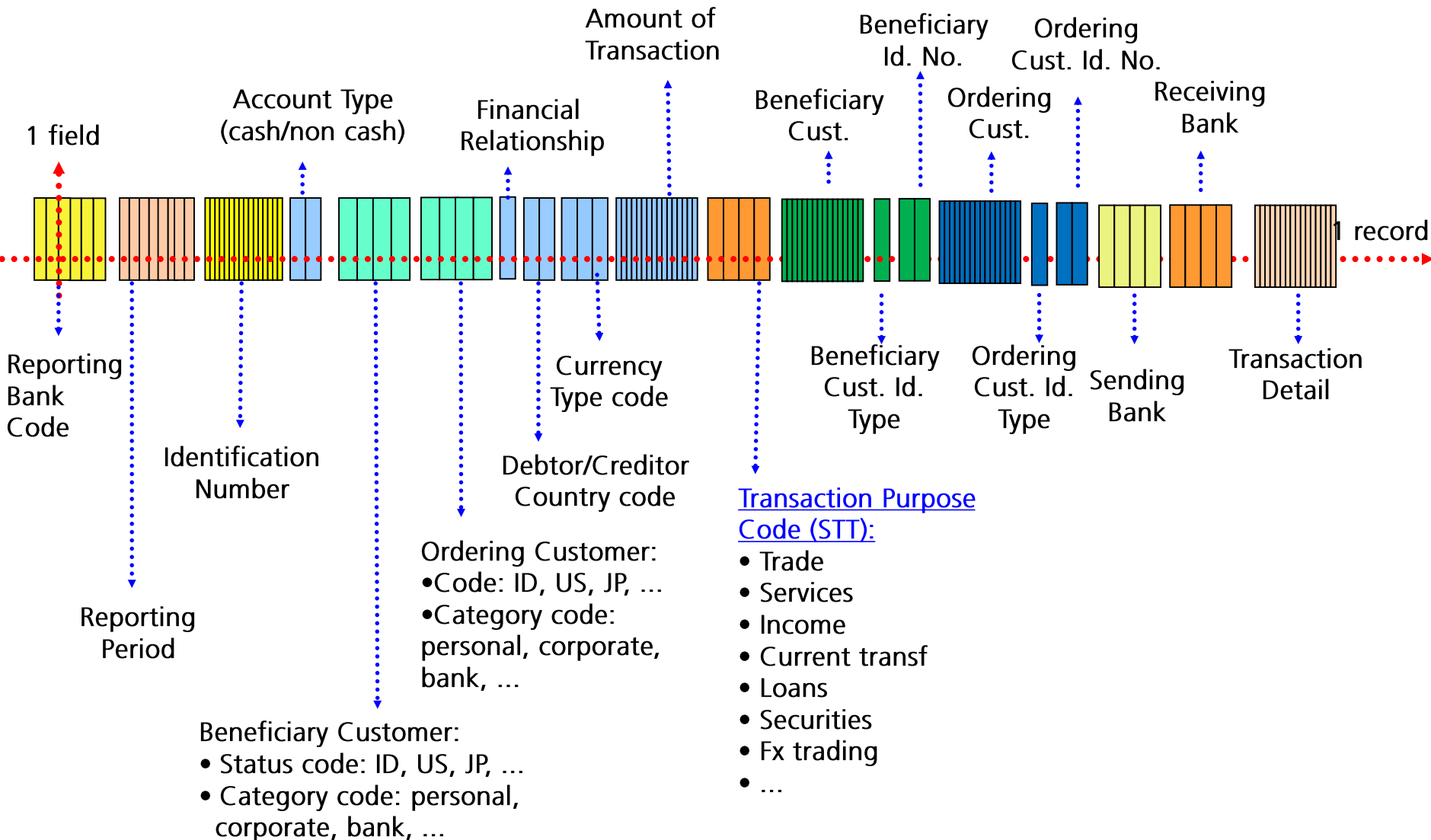
Data quality assurance

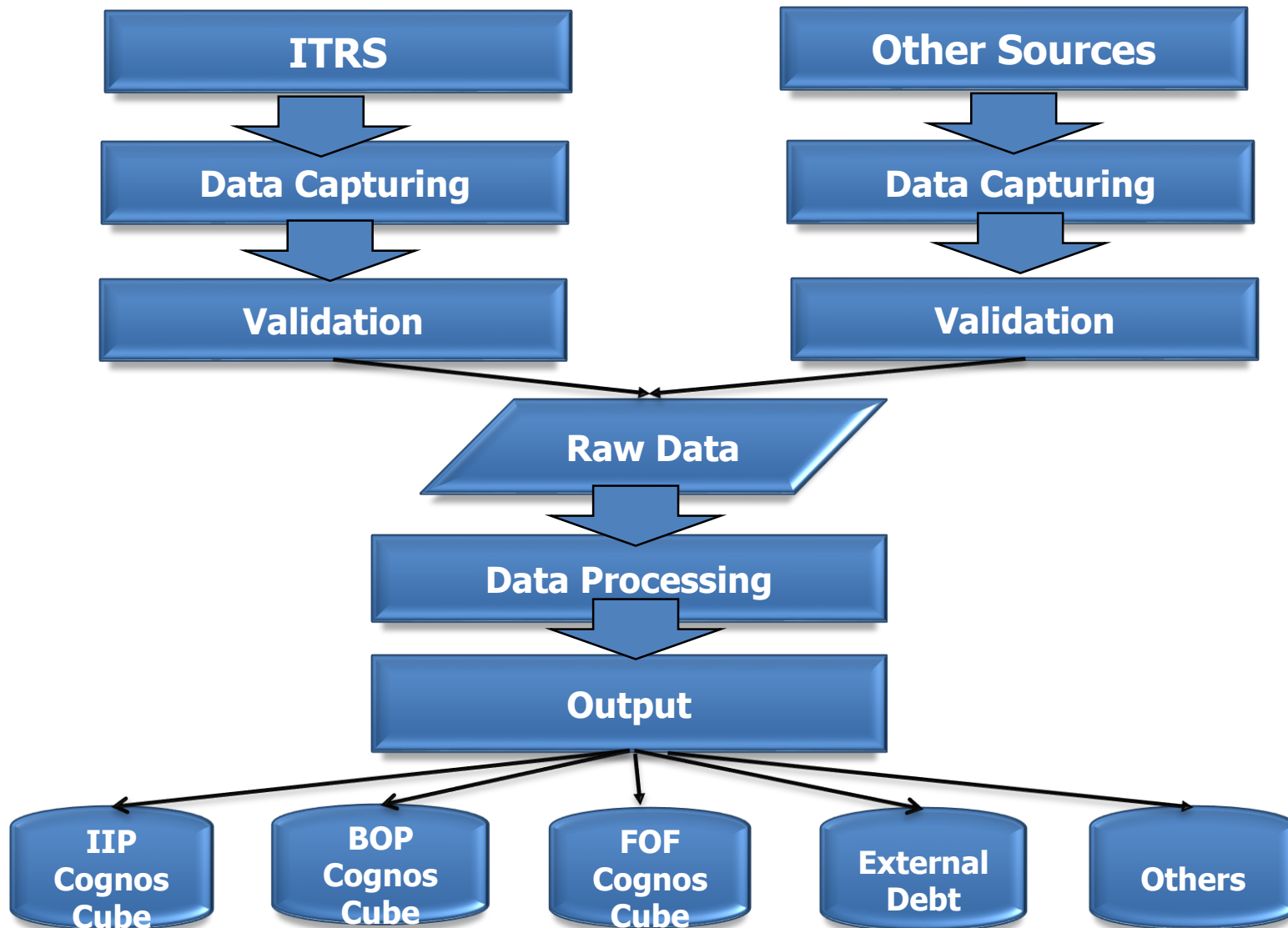
To ensure validity & reliability of the data, ITRS using automatic validation (identifying common or uncommon transaction related to the typical of transaction and transactor) embedded in the application,

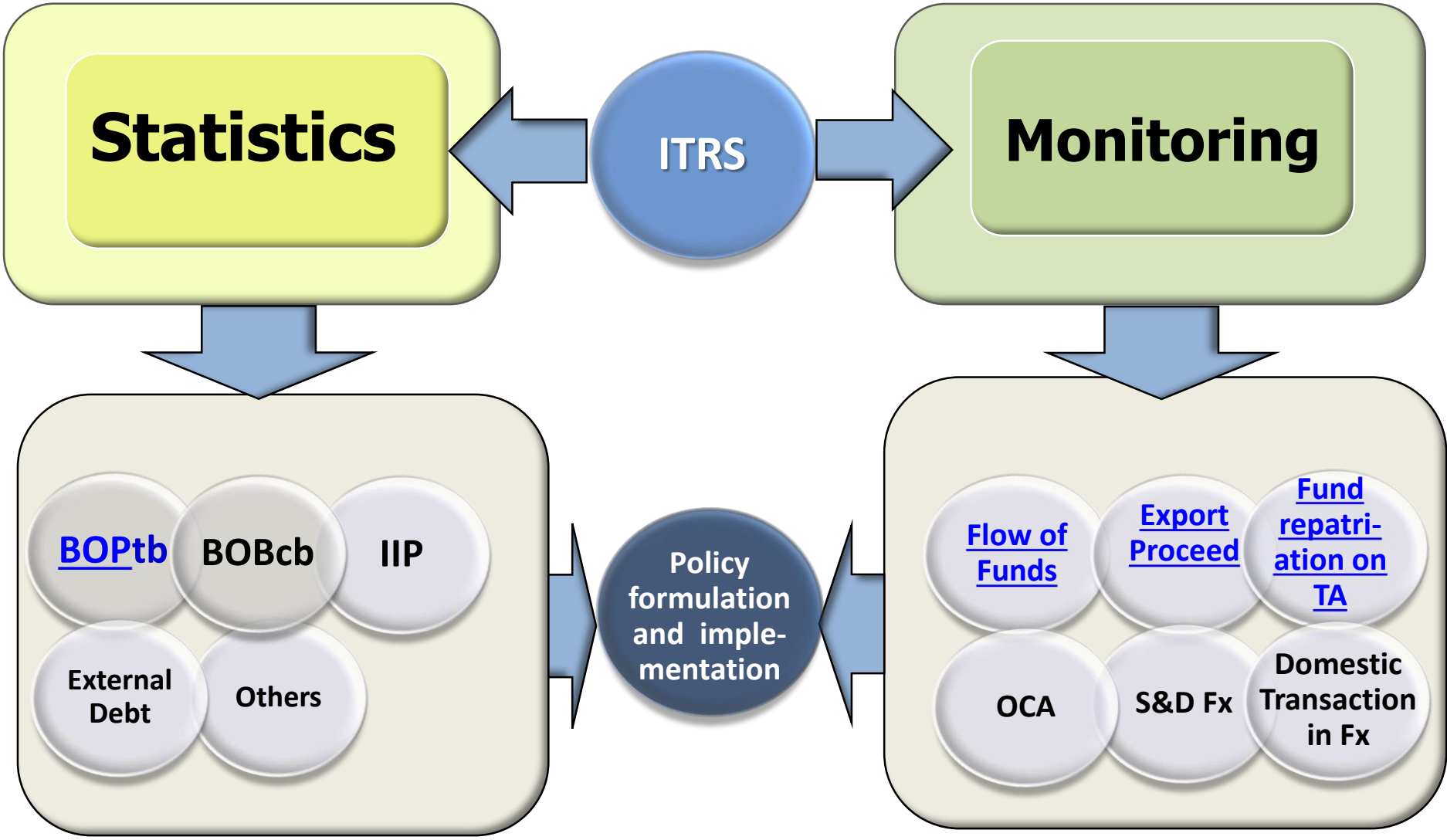
Using of ITRS

For statistics and monitoring purposes. The output are used for supporting the policy formulation and implementation.

Each transaction above threshold is reported in a record containing some fields cover all of detail requirement







Indonesia's Balance Of Payments Statistics Improvement

Since implementation of ITRS, Indonesia could filled all of the BOP main components, especially in services account. Most of the services detail data comes from ITRS.

ITEMS	Before ITRS		After ITRS	
	Credit	Debit	Credit	Debit
I. Current Account				
1. Goods	√	√	√	√
2. Services				
a. Manufacturing services			√	√
b. Maintenance and repair services			√	√
c. Transport	√	√	√	√
d. Travel	√	√	√	√
e. Construction			√	√
f. Insurance and pension services			√	√
g. Financial services			√	√
h. Charges for the use of intellectual property			√	√
i. Telecommunications, computer, and information services			√	√
j. Other business services*	√	√	√	√
k. Personal, cultural, and recreational services			√	√
l. Government goods and services			√	√
3. Primary Income				
a. Direct Investment	√	√	√	√
b. Portfolio Investment	√	√	√	√
c. Other Investment	√	√	√	√
4. Secondary Income	√	√	√	√
II. Capital Account & Financial Account				
1. Direct Investment**				
a. Assets	√	√	√	√
b. Liabilities	√	√	√	√
2. Portfolio Investment				
a. Assets	√	√	√	√
b. Liabilities	√	√	√	√
3. Financial Derivatives	√	√	√	√
4. Other Investment				
a. Assets	√	√	√	√
b. Liabilities	√	√	√	√

* Other Services under BPM5

** DI in & DI abroad under BPM5

ITEMS	2015	2016				
	TOTAL ***	Q1*	Q2*	Q3**	Q4***	TOTAL ***
I. CURRENT ACCOUNT	-17,519	-4,651	-5,203	-4,680	-1,813	-16,347
A. Goods, net	14,049	2,648	3,749	3,923	5,070	15,390
- Exports, f.o.b.	149,124	33,039	36,282	34,891	40,229	144,441
- Imports, f.o.b.	-135,076	-30,391	-32,533	-30,967	-35,160	-129,051
1. General Merchandise	13,319	2,340	3,517	3,706	5,240	14,803
- Exports, f.o.b.	147,725	32,687	35,977	34,554	39,843	143,061
- Imports, f.o.b.	-134,406	-30,347	-32,460	-30,848	-34,604	-128,258
a. Non Oil & Gas, net	19,023	3,244	4,959	5,042	6,381	19,625
- Exports, f.o.b.	130,541	29,836	32,752	31,292	36,293	130,173
- Imports, f.o.b.	-111,518	-26,592	-27,793	-26,250	-29,912	-110,548
b. Oil, net	-13,106	-2,030	-2,463	-2,621	-2,588	-9,702
- Exports, f.o.b.	7,833	1,221	1,816	1,631	1,600	6,267
- Imports, f.o.b.	-20,938	-3,250	-4,279	-4,252	-4,188	-15,969
c. Gas, net	7,402	1,126	1,021	1,286	1,447	4,880
- Exports, f.o.b.	9,351	1,631	1,409	1,631	1,950	6,620
- Imports, f.o.b.	-1,949	-505	-388	-345	-503	-1,741
2. Other Goods	730	308	232	217	-170	587
- Exports, f.o.b.	1,400	352	305	337	386	1,380
- Imports, f.o.b.	-670	-44	-73	-120	-556	-793
B. Services, net	-8,697	-1,041	-2,273	-1,614	-1,558	-6,486
- Exports	22,221	5,946	5,429	5,974	6,801	24,151
- Imports	-30,918	-6,987	-7,702	-7,588	-8,360	-30,637
C. Primary Income, net	-28,379	-7,493	-7,903	-8,013	-6,272	-29,681
- Receipts	2,822	515	692	646	989	2,843
- Payments	-31,201	-8,008	-8,595	-8,659	-7,262	-32,524
D. Secondary Income, net	5,508	1,235	1,223	1,024	949	4,430
- Receipts	10,362	2,479	2,563	2,415	2,348	9,806
- Payments	-4,853	-1,245	-1,340	-1,391	-1,400	-5,375
II. CAPITAL ACCOUNT	17	0	4	5	0	9
- Receipts	17	0	4	5	0	9
- Payments	0	0	0	0	0	0
NET LENDING (+)/NET BORROWING (-) (I + II)	-17,502	-4,651	-5,199	-4,675	-1,813	-16,337

ITEMS	2015	2016				
	TOTAL***	Q1*	Q2*	Q3**	Q4***	TOTAL***
III. FINANCIAL ACCOUNT	16,843	4,378	7,502	10,551	6,757	29,188
- Assets	-21,489	-1,316	-3,849	3,925	20,418	19,178
- Liabilities	38,332	5,694	11,351	6,626	-13,661	10,010
1. Direct investment	10,704	3,082	3,272	6,533	2,234	15,121
1.1. Assets	-9,075	-852	-1,185	471	12,925	11,359
1.2. Liabilities	19,779	3,934	4,457	6,062	-10,690	3,762
2. Portfolio investment	16,183	4,439	8,277	6,541	-385	18,872
2.1. Assets	-1,268	-168	402	1,938	14	2,186
2.1.1. Public Sector ²⁾	392	174	-53	1,579	96	1,795
2.1.2. Private Sector ³⁾	-1,660	-341	455	359	-82	391
2.2. Liabilities	17,451	4,607	7,875	4,604	-399	16,686
2.2.1. Public Sector ²⁾	17,386	4,919	7,213	3,211	1,492	16,835
2.2.2. Private Sector ³⁾	65	-312	663	1,393	-1,891	-148
3. Financial Derivatives	20	-22	-25	-28	66	-9
3.1. Assets	667	276	171	160	1	609
3.2. Liabilities	-647	-298	-195	-188	64	-618
4. Other investment	-10,064	-3,121	-4,022	-2,495	4,842	-4,796
4.1. Assets	-11,812	-573	-3,236	1,356	7,477	5,024
4.1.1. Public Sector ²⁾	0	0	-269	0	0	-269
4.1.2. Private Sector ³⁾	-11,812	-573	-2,967	1,356	7,477	5,293
4.2. Liabilities	1,748	-2,548	-786	-3,851	-2,635	-9,820
4.2.1. Public Sector ²⁾	-190	-119	-1,599	-1,242	-319	-3,279
4.2.2. Private Sector ³⁾	1,938	-2,429	813	-2,609	-2,317	-6,542
IV. TOTAL (I+II+III)	-659	-272	2,303	5,876	4,944	12,851
V. NET ERRORS & OMISSIONS	-439	-15	-141	-167	-439	-762
VI. OVERALL BALANCE (IV+V)	-1,098	-287	2,162	5,708	4,505	12,089
VII. RESERVES AND RELATED ITEMS (A+B+C) ⁴⁾	1,098	287	-2,162	-5,708	-4,505	-12,089
A. Reserve Asset Transactions	1,098	287	-2,162	-5,708	-4,505	-12,089
B. Credit and Loans from the IMF	0	0	0	0	0	0
1. Purchases						
2. Repurchases						
C. Exceptional Financing						
Memorandum:						
Reserve Assets Position	105,931	107,543	109,789	115,671	116,362	116,362
(In Months of Imports & Official Debt Repayment)	7.7	7.7	8.0	8.5	-	-
(In Months of Imports)	8.0	8.0	8.3	8.8	-	-
Intervention Sell (-)/Intervention Buy (+) Assumption	-27,722	-2,421	1,056	1,811	1,846	2,292

SDDS Data and Category	2010	2011	2012	2013	2014	2015				2016*		
						Q1	Q2	Q3	Q4	Q1	Q2	Q3
A. Assets	149,981	166,843	187,265	190,290	201,907	208,621	213,947	207,960	212,101	214,274	219,596	319,535
1. Direct Investment	19,293	19,998	27,985	39,738	37,512	39,394	42,050	39,935	40,656	41,044	41,027	86,645
1.1. Equity Capital	10,359	10,183	15,335	26,464	25,003	26,341	27,900	26,322	27,365	27,857	28,333	58,265
1.2. Debt Instruments	8,934	9,814	12,650	13,274	12,509	13,053	14,150	13,613	13,291	13,187	12,694	28,380
2. Portfolio Investment	6,829	8,018	13,486	14,759	12,172	12,148	12,985	13,415	13,335	13,496	13,024	13,502
2.1. Equity Securities	947	1,259	1,724	2,434	3,187	3,444	3,814	3,760	3,847	3,918	3,997	3,812
2.2. Debt Securities	5,881	6,759	11,762	12,325	8,985	8,703	9,171	9,655	9,488	9,578	9,027	9,690
3. Financial Derivatives	81	101	57	168	152	195	177	243	182	175	161	117
4. Other Investment	27,571	28,603	32,955	36,238	40,209	45,332	50,706	52,647	51,997	52,017	55,595	103,600
4.1. Trade Credit and Advances	6,387	6,144	10,317	10,961	11,876	12,449	13,882	14,318	14,108	14,005	14,737	21,276
4.2. Loans	893	1,375	1,032	253	205	372	815	1,136	1,236	941	919	1,950
4.3. Currency and Deposits	17,760	18,255	18,776	21,555	23,788	28,025	31,098	31,744	31,200	31,966	34,223	71,823
4.4. Other Assets	2,531	2,829	2,829	3,469	4,340	4,485	4,910	5,449	5,453	5,105	5,716	8,550
5. Reserve Assets	96,207	110,123	112,781	99,387	111,862	111,554	108,030	101,720	105,931	107,543	109,789	115,671
5.1. Monetary Gold	3,299	3,593	3,935	3,023	3,027	2,975	2,952	2,841	2,661	3,103	3,317	3,309
5.2. Special Drawing Rights (SDRs)	2,714	2,696	2,715	2,712	2,551	2,436	2,471	2,474	2,442	1,574	1,561	1,564
5.3. Reserve Position in the Fund (RPF)	224	223	224	224	211	201	204	204	202	1,108	1,100	1,102
5.4. Other Reserve Assets	89,970	103,611	105,907	93,427	106,073	105,940	102,403	96,200	100,626	101,758	103,811	109,696
B. Liabilities	441,043	485,115	548,489	561,723	585,880	613,105	597,902	564,417	596,768	615,175	633,318	660,124
1. Direct Investment	173,356	198,598	227,219	251,187	229,603	248,203	244,031	236,585	241,570	245,682	250,953	268,203
1.1. Equity Capital	151,018	170,883	196,405	216,196	190,288	208,259	201,389	195,586	201,816	205,491	211,869	227,659
1.2. Debt Instruments	22,339	27,715	30,814	34,990	39,314	39,944	42,642	40,999	39,754	40,190	39,084	40,544
2. Portfolio Investment	146,148	152,782	178,393	161,975	204,793	213,973	205,258	176,082	201,510	215,938	227,454	241,151
2.1. Equity Securities	88,847	89,253	100,911	77,692	102,142	106,133	91,840	66,806	84,809	92,797	96,551	107,100
2.2. Debt Securities	57,302	63,529	77,483	84,283	102,651	107,840	113,418	109,276	116,701	123,141	130,902	134,051
3. Financial Derivatives	57	87	95	136	122	194	116	255	91	101	110	103
4. Other Investment	121,481	133,648	142,782	148,425	151,362	150,734	148,497	151,495	153,597	153,454	154,801	150,667
4.1. Trade Credit and Advances	691	1,568	2,126	2,037	1,735	1,685	1,673	2,330	2,136	2,355	3,289	3,122
4.2. Loans	108,143	118,582	121,363	126,585	130,085	130,338	128,048	129,579	131,836	132,379	131,744	129,409
4.3. Currency and Deposits	5,826	7,117	8,240	9,694	12,075	11,984	12,080	12,634	12,821	12,001	13,058	13,022
4.4. Other Liabilities	6,821	6,381	11,053	10,109	7,467	6,728	6,695	6,952	6,804	6,719	6,711	5,114
International Investment Position, net	-291,062	-318,272	-361,224	-371,433	-383,973	-404,483	-383,955	-356,458	-384,667	-400,901	-413,722	-340,589
Memorandum:												
Direct investment based on directional principle	-154,063	-178,600	-199,234	-211,449	-192,090	-208,809	-201,982	-196,650	-200,914	-204,637	-209,926	-181,559
A. Direct investment abroad	6,672	6,204	12,401	19,350	25,396	27,123	28,522	28,005	29,018	29,320	29,601	74,489
1. Equity capital	9,956	9,796	12,106	19,075	24,721	26,088	27,650	26,012	26,987	27,423	27,818	57,733
2. Debt instruments	-3,284	-3,592	295	275	676	1,035	872	1,993	2,030	1,897	1,783	16,757
B. Direct investment in Indonesia	160,735	184,804	211,635	230,799	217,487	235,933	230,503	224,655	229,931	233,957	239,527	256,048
1. Equity capital	150,614	170,495	193,175	208,807	190,005	208,006	201,139	195,277	201,439	205,057	211,354	227,127
2. Debt instruments	10,121	14,308	18,459	21,992	27,481	27,927	29,364	29,379	28,493	28,900	28,173	28,921

Challenges

- How to improve the data quality for external statistics and data reliably for monitoring purposes. Misclassification is a frequent problem identified in an ITRS , ex: inaccuracy on underlying transaction, ordering & beneficiary customer codes, etc.
- How to connect ITRS data to other data from other data sources to make a comprehensive analysis in order to support polices formulation and implementation.
- How to build cooperation with other country authorities for sharing and ensuring the consistency of data.

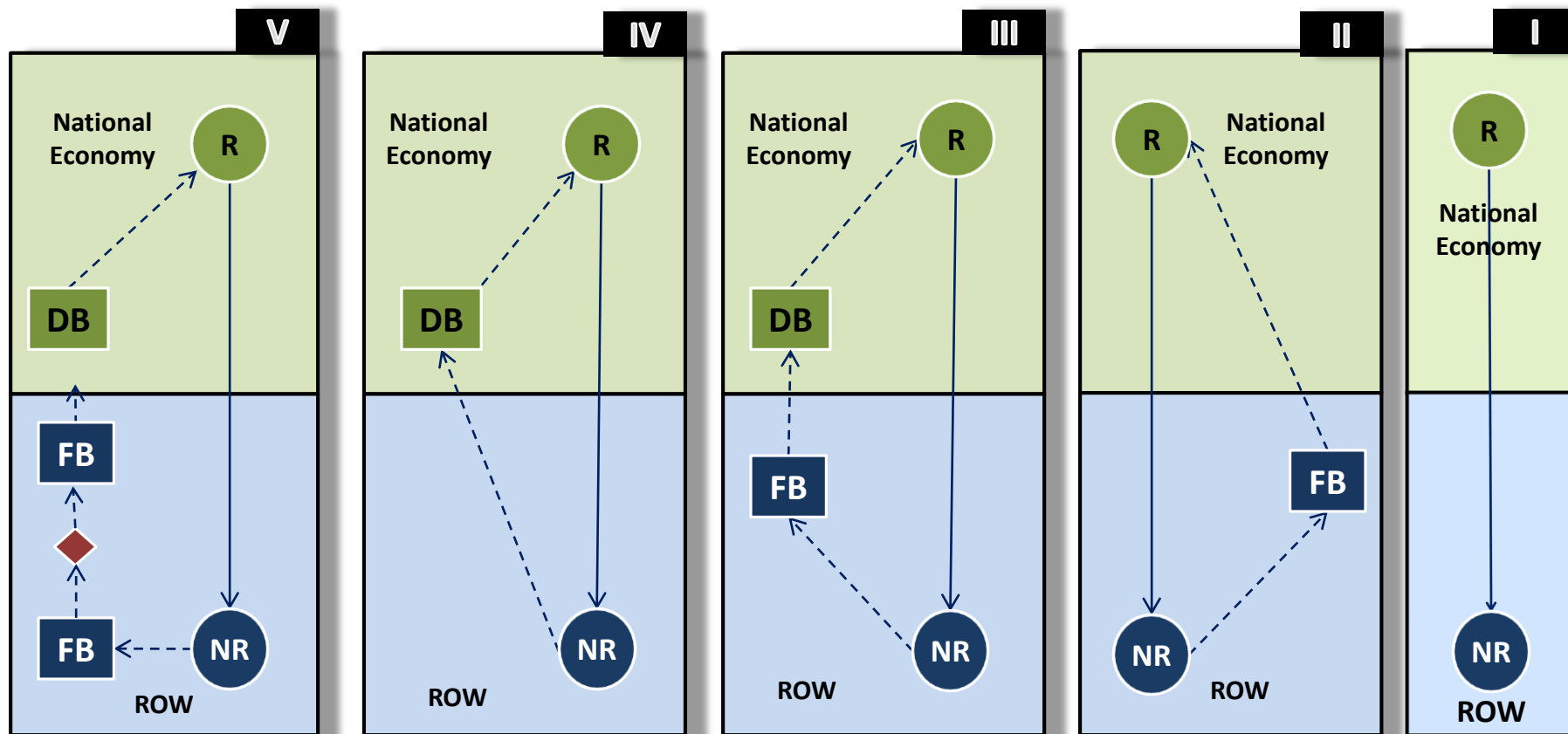
Opportunities

- Grasp the complete picture of flow of funds that goes into or out of domestic money market.
- Enrich external statistical analysis.
- Strengthen capital flows management.

PAYMENT SCHEMES AND FLOW OF FUNDS (FOF)

FOF for transactions between residents and non residents

In this scheme, residents considered to receive payments for transactions with non-residents



IV. Payment via nostro, no fx inflow into NFS.

IV. Payment via vostro (decrease). There is no fx inflow into NFS.

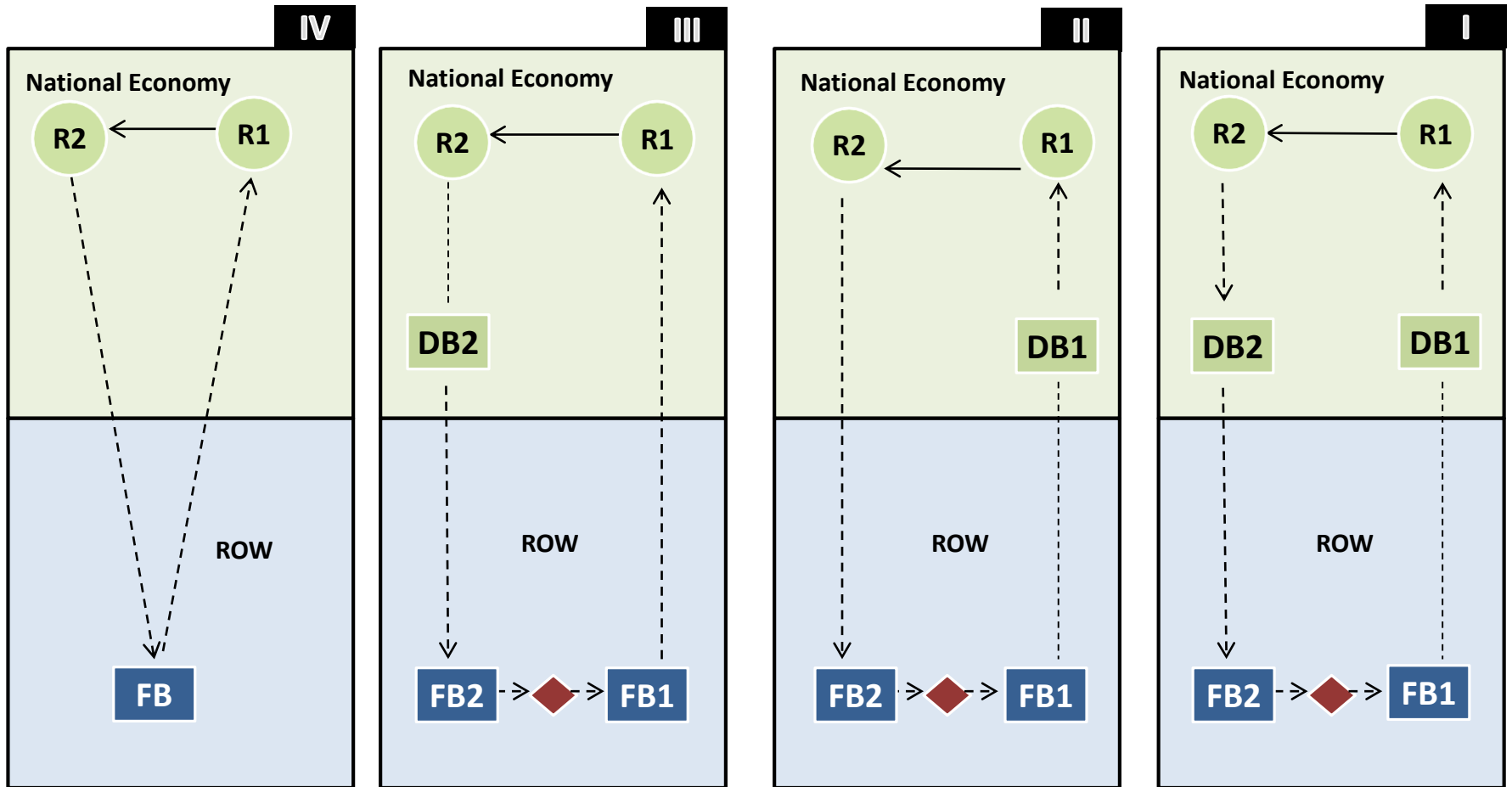
III. Payment via vostro or nostro. If vostro debited (decrease) no fx inflow, if nostro credited (increase) fx inflow into NFS.

II. Payment via OCA, no fx inflow into National Financial System (NFS).

I. Payment without financial intermediary

PAYMENT SCHEMES AND FLOW OF FUNDS

FOF for transactions in foreign currency between Residents



IV. Payment only via OCA (overbooking), no FOF in NFS.

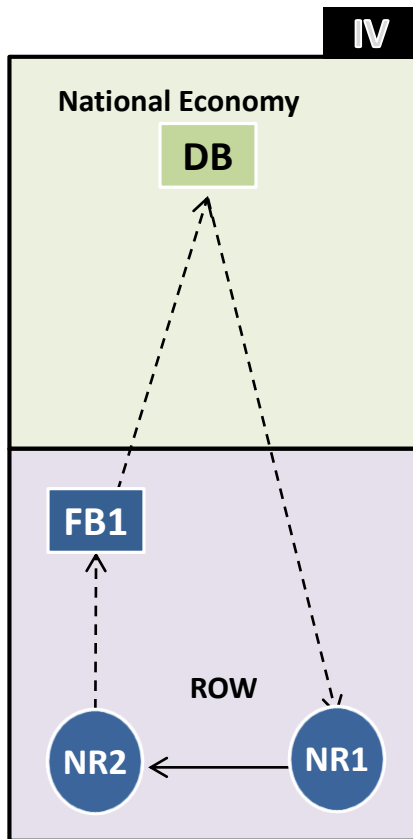
III. Payment via nostro (decrease) and OCA (increase). There is outflow from NFS.

II. Payment via OCA (decrease) and vostro decrease, no fx inflow into NFS.

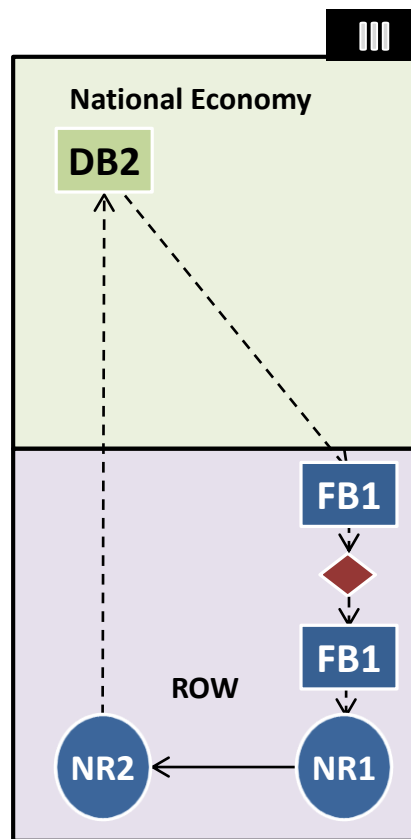
I. Payment of the transaction via nostro. There is zero fx net flow into NFS.

PAYMENT SCHEMES AND FLOW OF FUNDS

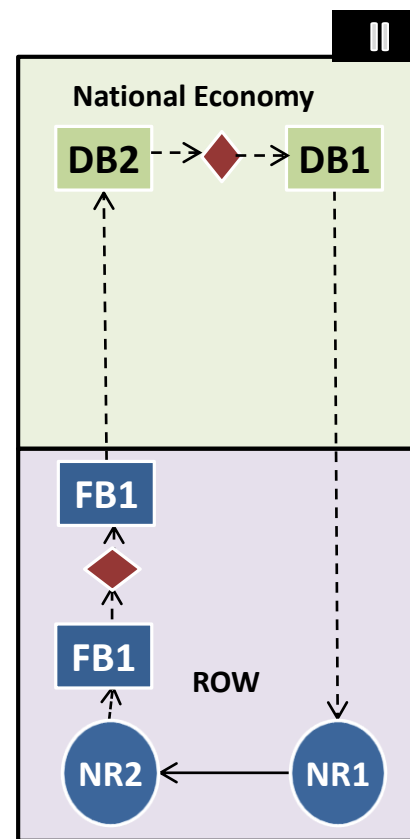
FOF for transactions in national currency between non Residents



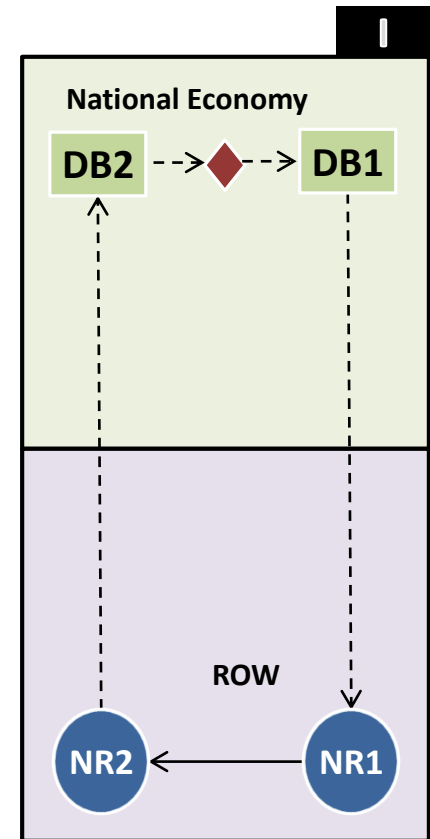
IV. Payment only via vostro (overbooking). There is no fx flow in NFS.



III. Payment via vostro (decrease) and nostro (decrease). There is outflow from NFS.



II. Payment via nostro (increase) and vostro (increase), fx inflow into NFS.



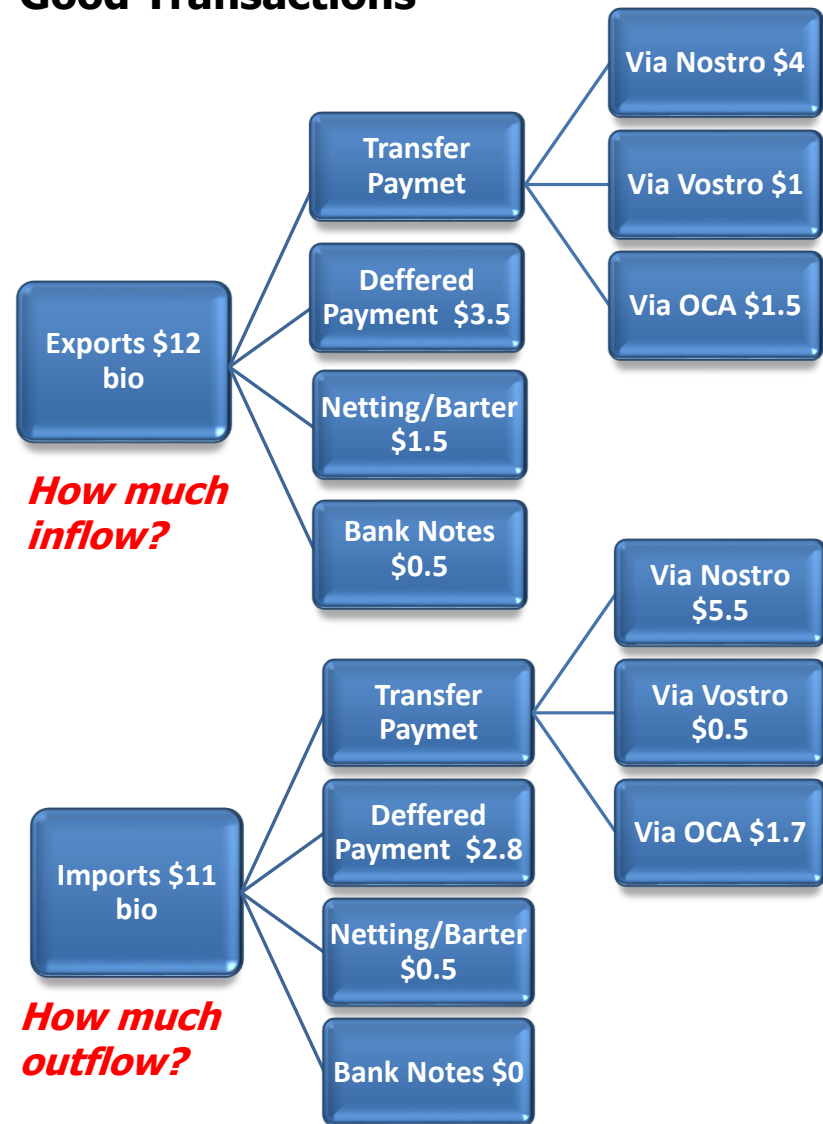
I. Payment via vostro. There is zero fx inflow into National Financial System (NFS).

Conclusion concerning FOF related to mechanism of payment a transaction

- ✓ Different payment mechanism of a transaction can give cause different FOF. Improper interpretation of the data transactions and FOF will affect the quality of the analysis for a particular purpose, for example to analyze the capacity of economy related to international transactions, the liquidity in foreign exchange market, and the national currency stability.
- ✓ In the perspective of flows of funds, payment of international transactions of a non-resident to the resident does not necessarily increase the supply of foreign currency to the national financial system. On the other hand, payment of domestic transactions between resident can reduce or increase the supply of foreign exchange into the national financial system.

Illustration of international transactions within a specific period

Good Transactions

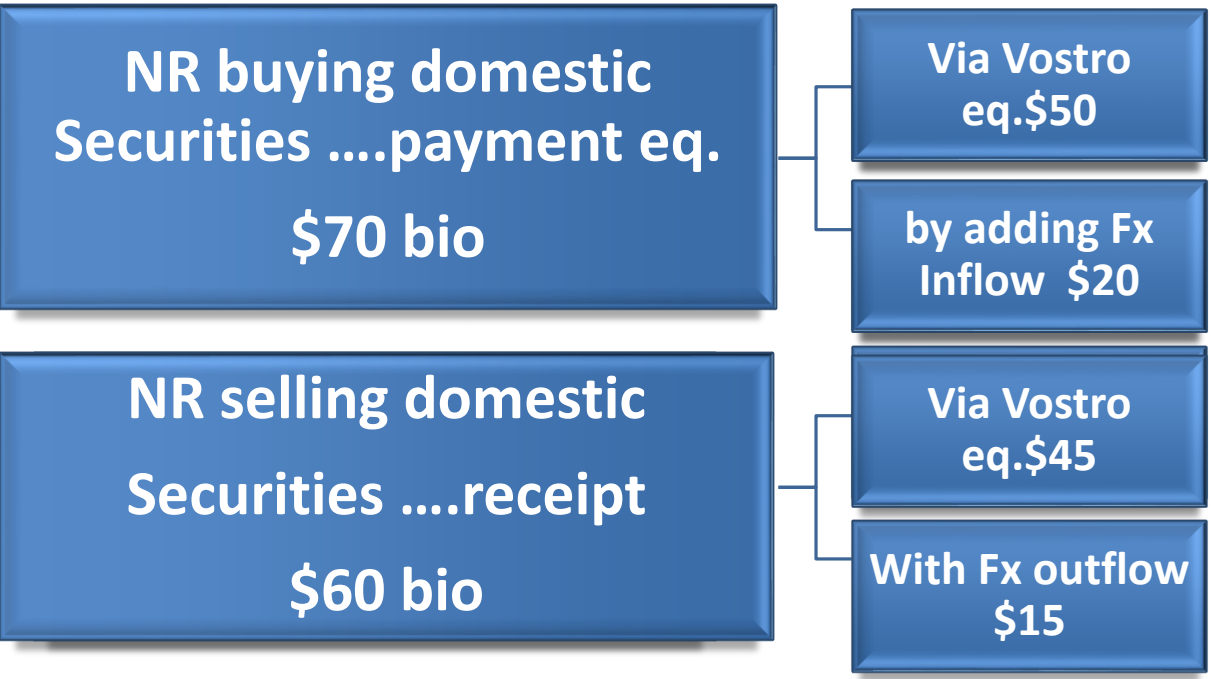


BOP _{tb}	BOP _{cb}	FOF ₁	FOF ₂
<u>Inflow</u>			
12	7	6	4
<u>Outflow</u>			
11	7,7	7,2	5,5
<u>Trade Balance (surplus deficit)</u>			
+1	-0,7	-1,2	-1,5

- Value of inflow/outflow is different for BOP transactions basis, BOP cash basis, and the flow of funds .
- According to BOP standard, inflow and outflow for BOP transaction basis are 12 and 11 so the result is net inflow of 1. However, BOP cash basis records deficit -0.7
- For FOF1, there is a net outflow of -1.2, greater than FOF2 value (flow of funds into the domestic foreign exchange market) that reach -1.5.

Illustration of international transactions within a specific period

Financial transaction (FA-PI Liabilities)



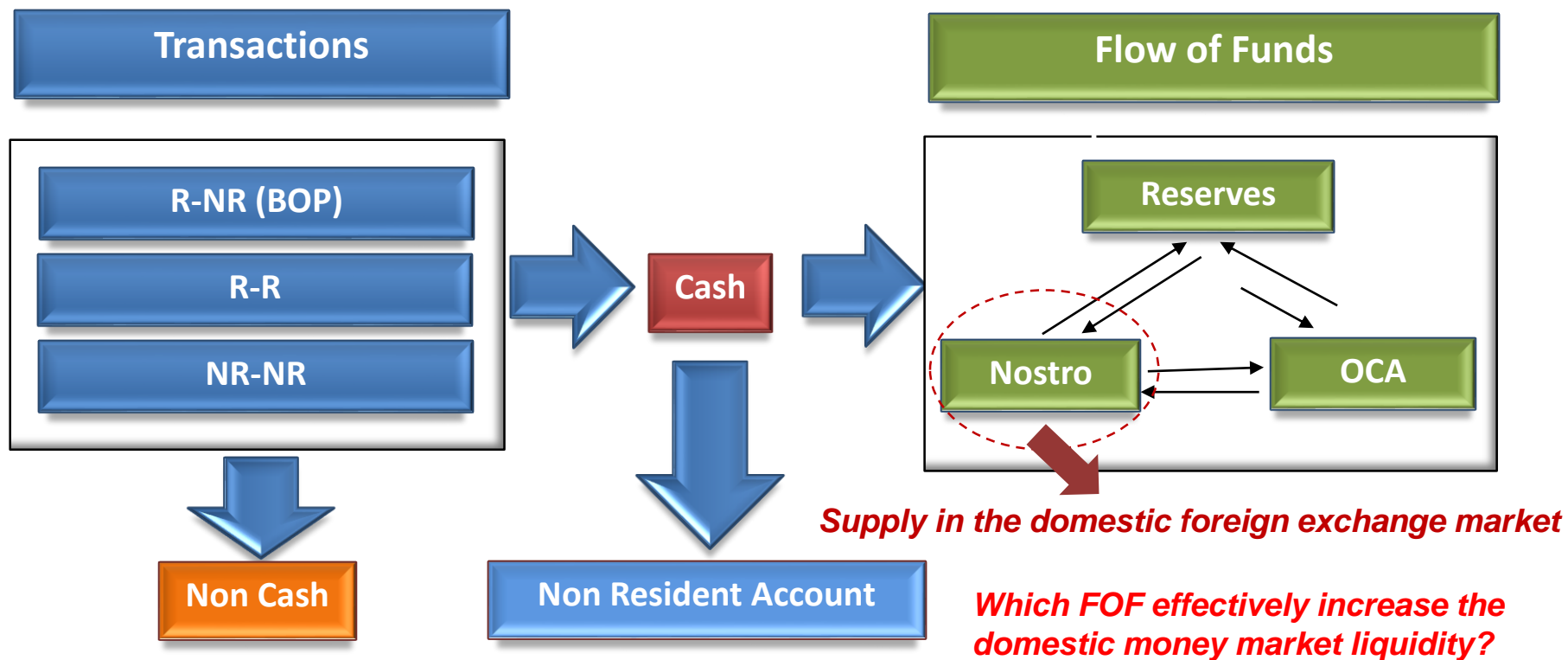
How much the actual fresh money coming into the local economy?

- For BOP transaction basis, financial transactions attain net surplus of \$10 bio .
- For flow of funds (in the form of foreign exchange flows /fresh money that goes into the domestic foreign exchange market only reach net surplus of \$5 bio.

Surplus/deficit FA-PI Liabilities →

BOP	FOF
10	5

Nostrro account is our account (usually bank) in a different country and a vostro account is a foreigner's account in our country. A nostrro account is always in foreign Currency while a vostro account is in Home currency



- In general, all transactions are divided into three groups, namely the transaction between the residence (R) and non residence (NR), transaction between R, and transactions between NR.
- The transactions may include cash that accompanied the flow of funds and non-cash.
- In general, flow of funds influence the residence accounts, i.e. nostro (domestic bank's account abroad, central bank's account abroad or reserves, and of domestic company's current account abroad (called Overseas Current Account or OCA))

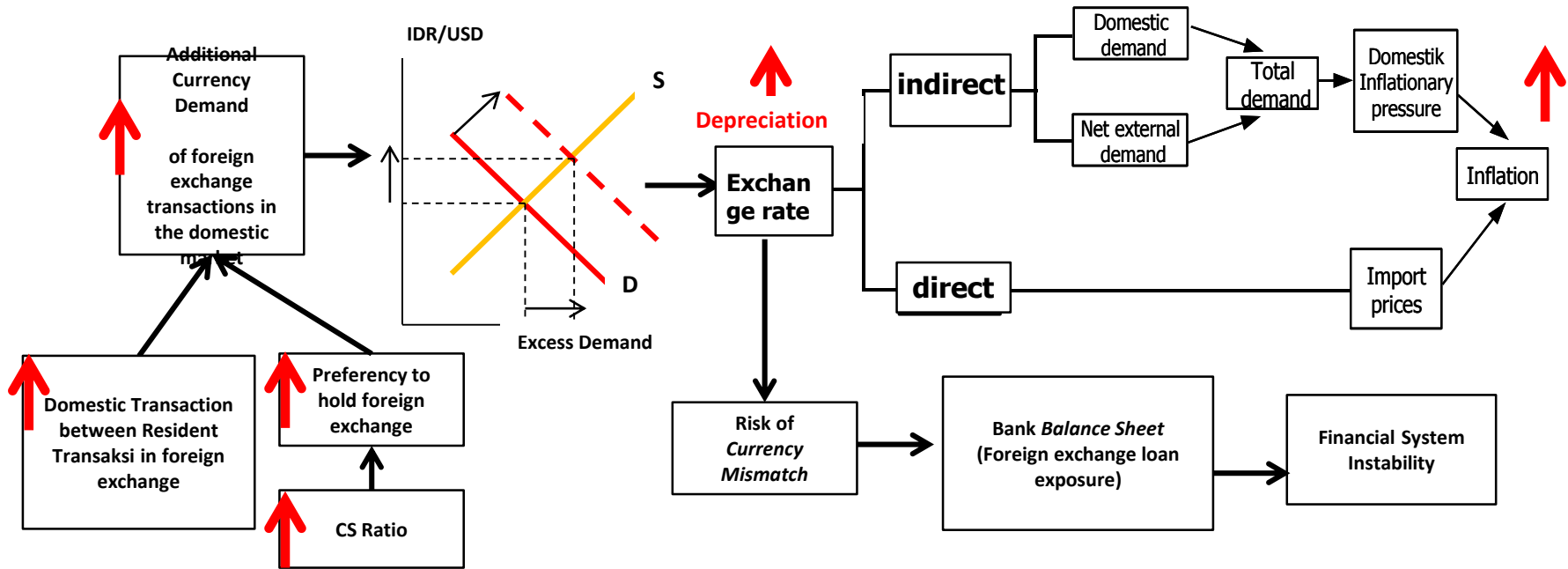
Illustration of transactions within a specific period

\$ bio

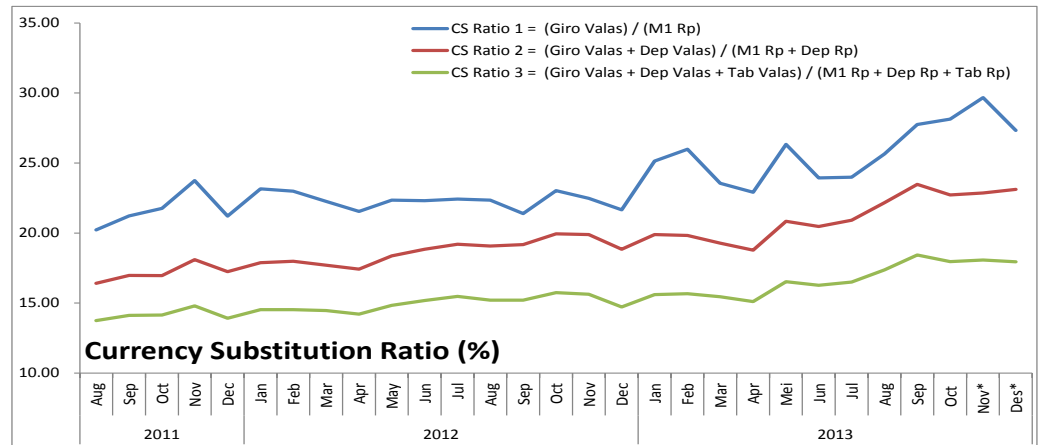
Description	Trans- actions	Flow of Funds			
		OCA	Nostro	Reserves	Total
R & NR (BOP)	3.0	0.7	1.9	0.3	2.9
Current Account	-1.5	0.1	-1.7	0.3	-1.3
Goods	1.0	0.3	0.5	0.1	0.9
Services	-0.5	-0.1	-0.4	0.0	-0.5
Income	-2.0	-0.1	-1.8	0.2	-1.7
Financial Account	4.5	0.6	3.6	0.0	4.2
- DI	1.1	0.2	0.7	0.0	0.9
- PI	2.7	0.3	2.4	0.0	2.7
- OI	0.7	0.1	0.5	0.0	0.6
R & R	0.1	-0.1	0.1	0.0	0.0
NR & NR	0.2	0.0	0.2	0.0	0.2
Total net flow		0.6	2.2	0.3	3.1
Policy		0.0	-1.8	1.8	0.0
Total net flow after policy		0.6	0.4	2.1	

- External data analysis usually uses BOP data. To support a comprehensive analysis, the flow of funds should also be used, depicting the distribution in the OCA, Nostro and reserves of BOP transactions.
- It should be equipped with a flow of funds data in OCA, nostro, reserves, covering transaction between R-R and NR-NR so that it can be seen how much the total FOF in OCA, Nostro and Reserves
- Illustration chart above makes clear that external transaction surplus does not directly link to a positive contribution to the supply of foreign currency in the country (nostro), as well as Reserves
- Overall, the supply of foreign currency in the country \$2.2 bio, influenced by transactions between R & NR, RR, NR and NR, then absorbed by monetary authority in amount of USD1,8 bio.

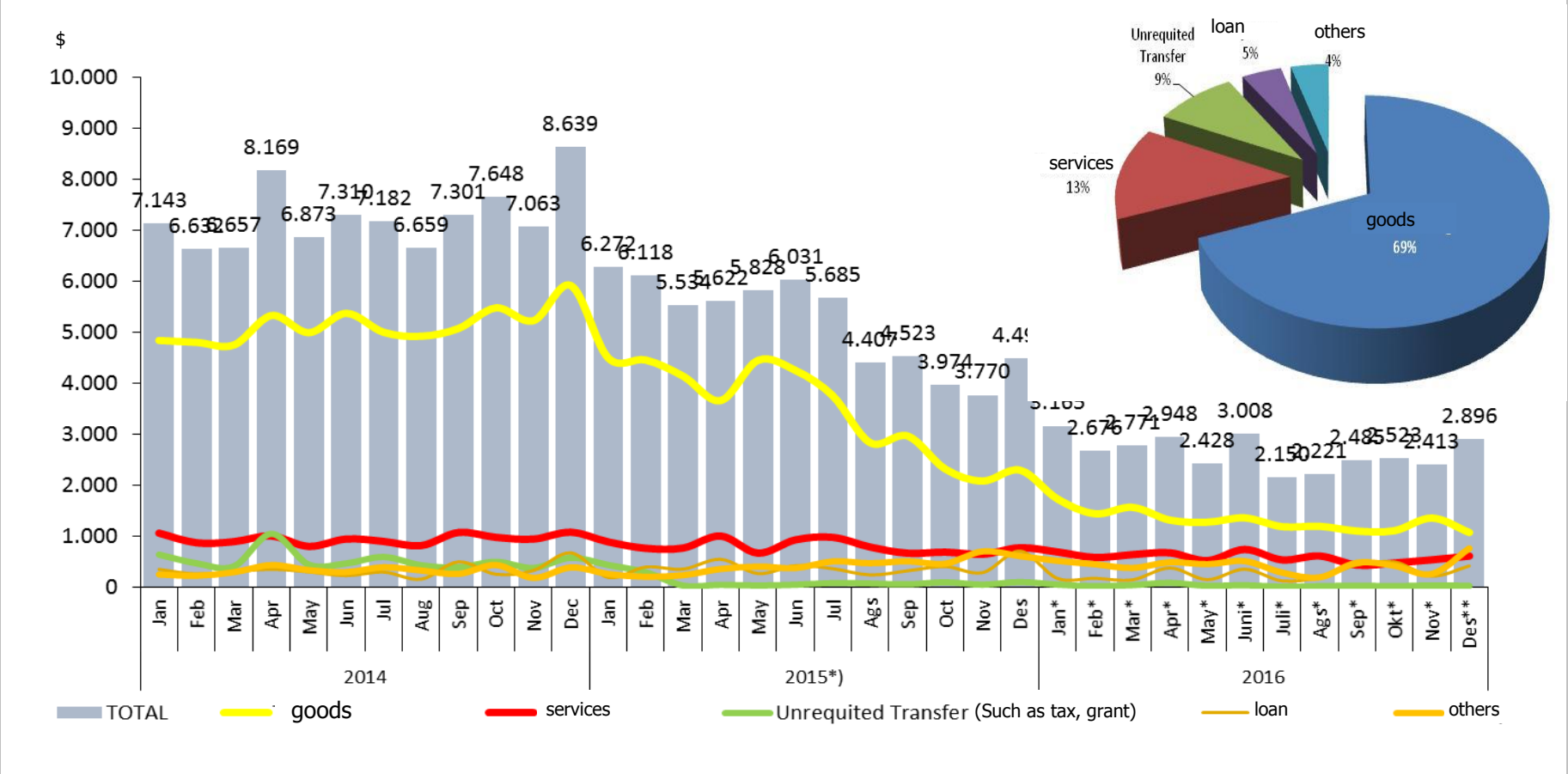
The Impact of Foreign Exchange Transaction between Resident in Domestic Market to National Economy



Transactions between resident in a foreign currency in the ITRS should be monitored as it may affect NFS foreign currency liquidity which will add pressure on the foreign exchange demand of domestic market. The resident tendency to use foreign exchange reflected among others by the high currency substitution ratio (ratio between the position of money currency circulating in the country compared to the money supply in a broad sense (M2)).



Transactions residence in the country in foreign currencies based on data from ITRS



Note: Not including transaction with government, buying and selling foreign currency, deposit, overbooking transaction, transaction below theshold (USD10.000).

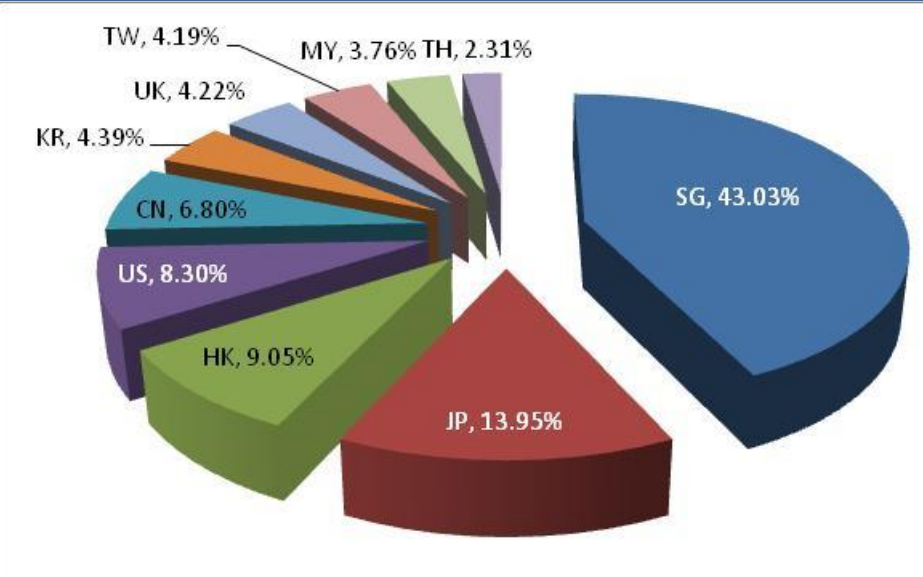
Comparison of the value of the export transaction based on custom documents and flow of funds



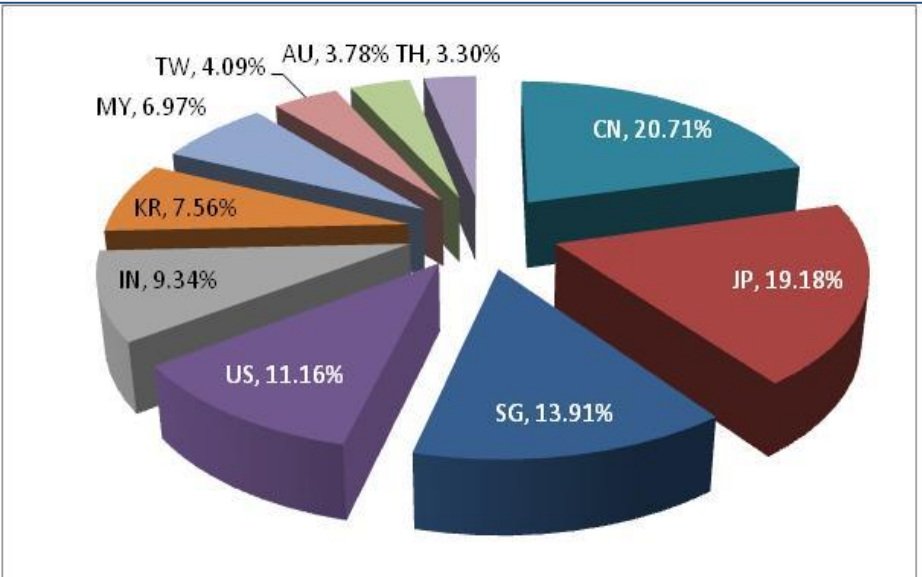
Description	2016											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov*	Dec**
1. Export proceed share to export	86.1%	83.8%	85.2%	76.1%	79.8%	75.3%	89.7%	73.4%	78.6%	76.1%	79.6%	80.9%
2. Export roceed share flows to domestic bank	94.4%	95.6%	93.4%	94.8%	95.3%	94.1%	94.2%	93.0%	92.7%	94.1%	93.2%	94.2%
3. Export proceed share flows to forein bank	5.6%	4.4%	6.6%	5.2%	4.7%	5.9%	5.8%	7.0%	7.3%	5.9%	6.8%	5.8%

Differences export counterpart countries based on data costume documents and data ITRS

Export Proceeds Composition by Country



Export Destination Composition by Country



- ✓ There are differences between country of export proceeds and country of export destinations.
- ✓ Export proceeds are mainly from Singapore, meanwhile the biggest export destinations is from China.

Flow of funds related to the funds repatriation into NFS

