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# *Measurement challenges in a globalized world*

IARIW Conference  
Luxembourg 21 August 2022

Michael Connolly

# Globalization Task Team (GZTT)—Current Members

## Chairs:

Mr. Michael Connolly (CSO, Ireland)

Mr. Branko Vitas, (ABS, Australia)

## Secretariat:

Ms. Jennifer Ribarsky (IMF)

Ms. Margarida Martins (IMF)

Ms. Padma Sandhya Hurree Gobin (IMF)

## International Organizations:

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Mr. Nadim Ahmad (OECD)

Mr. Martim Assuncao, Mr. Daniel Iscru,

Mr. Floris Jansen, Ms. Laura Wahrig (Eurostat)

Ms. Francien Berry, Mr. Phil Stoke (IMF)

Mr. Herman Smith (UNSD)

Mr. Tihomira Dimova and Mr. Rami Peltola (UNECE)

## Countries:

Mr. Roberto Luís Olinto Ramos (FGV, Brazil)

Mr. Andrey Tatarinov (ROSSTAT, Russia)

Ms. Natalia Kuprianova (Central Bank of Russia)

Mr. Sanjiv Mahajan (ONS, UK)

Ms. Grace Kim (ABS, Australia)

Mr. Dylan Rassier (BEA, US)

Ms. Ann Lisbet Brathaug (Statistics Norway)

Ms. Jennifer Withington (Statistics Canada)

Mr. Jens Walter (Deutsche Bundesbank)

Mr. Paul Feuvrier (Central Bank of Luxembourg)

Ms. Lizbeth Leyva Marin (Bank of Mexico)

Mr. Satoru Hagino (Fukuyama University, Japan)

Ms. Lamia Laabar (Haut-Commissariat au Plan, Morocco)

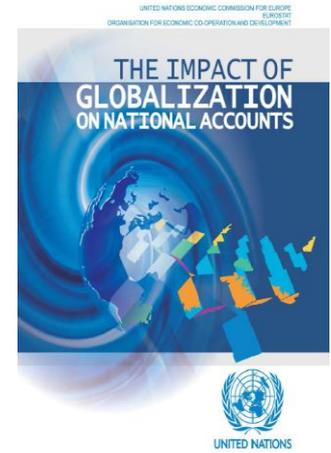
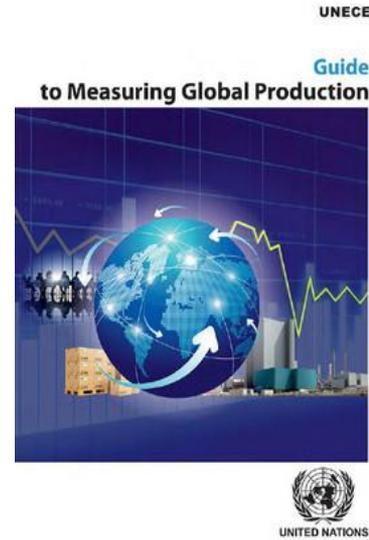
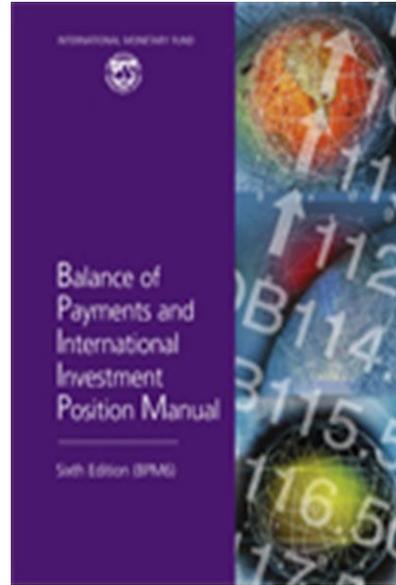
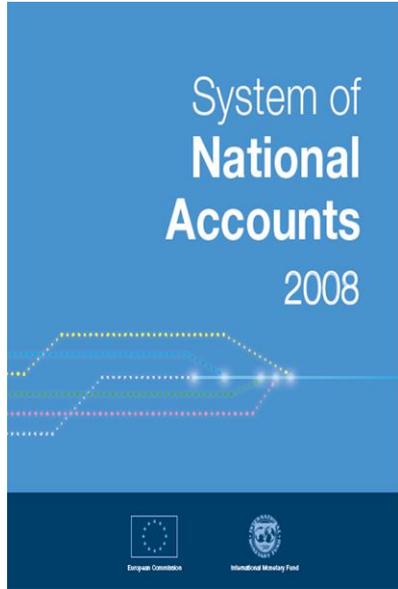
Ms. Yang Can (SAFE, China)

Mr. Themba Munalula (COMESA)

Ms. Lourdes Erro (Uruguay)

Mr. Dirk van den Bergen (Statistics Netherlands)

# Are we making any progress ?



# Outline for today

- Introduction - what are the challenges?
- How we approach updating of guidance in the new SNA
- MNE Company structures
- Global Value Chains and Trade in Value Added
- Multi-National Trading Arrangements
- Economic ownership and trade in IPP and Marketing assets
- Valuation of Exports and Imports





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# What are the challenges with Globalization?

*MNEs, roughly account for one-third of global output and between 50-60% of global exports*



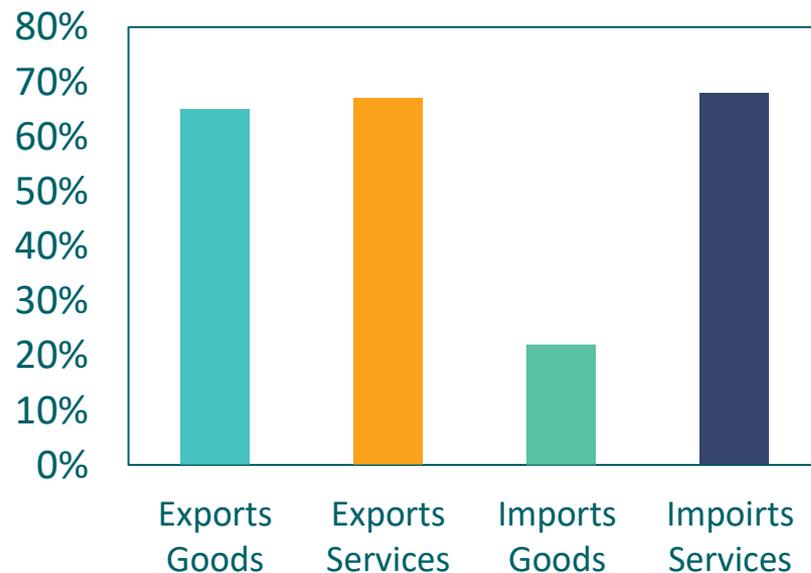
# But UNCTAD say MNEs account for 80% of trade?

- **80%** of trade takes place in 'value chains' linked to transnational corporations
- *UNCTAD – World Investment Report*



# What about Ireland - one of the most globalised countries in the World?

- MNEs account for
- 65% of Goods exports and 67% of services exports
- For imports : 22% of goods and 68% of services



*it is important that the SNA provides the granularity users will need to analyse, understand, and develop effective policy to address Globalization in the economy*

Cannot identify MNE activity separately in the National Accounts data





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# How we approach incorporating Globalisation in the new SNA



# Globalization Task Team (GZTT)

- Intersecretariat Working Group on National Accounts (ISWGNA) Globalization Task Team set up to develop guidance notes on MNEs and SPEs leading to the update of *2008 SNA* and *BPM6* in 2025,
  - In consultation with the Advisory Expert Group (AEG) on National Accounts and related task teams created under the aegis of IMF Balance of Payments Committee (BOPCOM).

Building on much work and discussion that has occurred post *2008 SNA* and *BPM6*, these options were put forward:

(I) Emphasize existing macroeconomic indicators

(II) Develop granular or supplemental data

(III) Come up with alternative presentations or extensions

(IV) Change standards



GZ.1

Valuation of Exports and  
imports

GZ.2

Multinational Corporations

GZ.3

Transfer Pricing

GZ.4

SPEs

GZ.5

Economic Ownership of  
Intellectual Property

GZ.6

Factoryless Goods Producers

GZ.7

Global Value Chains  
TiVa, GVS and eSUTs

GZ.8

Typology of Global Production

GZ.9

Marketing Assets



## Corporate Structures

- MNEs
- SPEs



## Trading Arrangements

- GVCs , TiVa, eSUTs
- FGPs and Contract Manufacturers



## Specific Transactions

- Intellectual Property Products
- Marketing Assets



## Exports and Imports

- Valuation

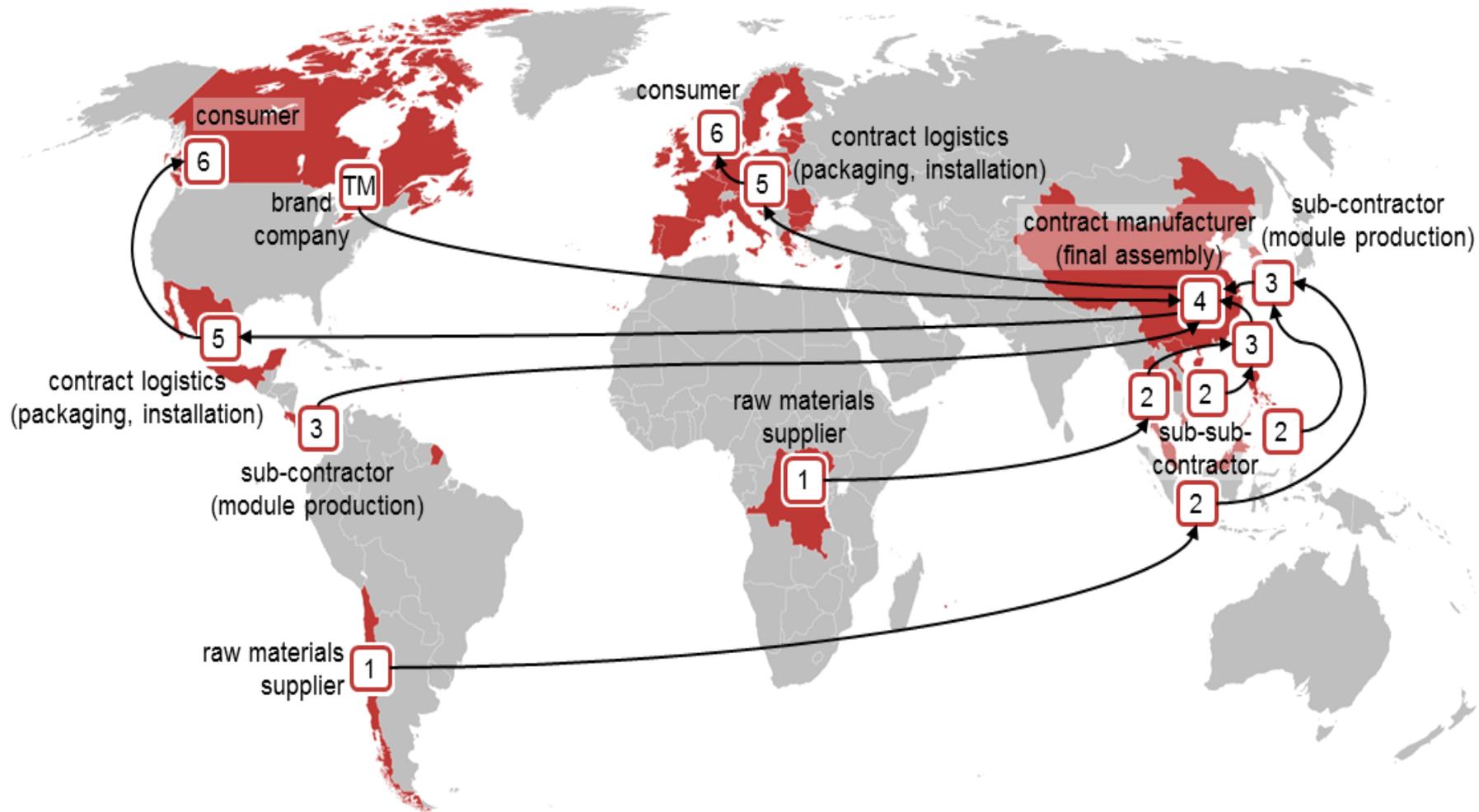


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# MNE Company structures- MNEs and SPEs GN.2 & GN.4

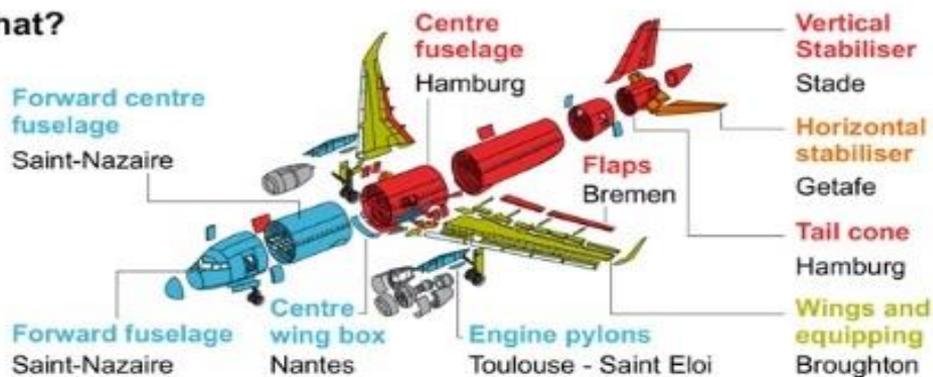




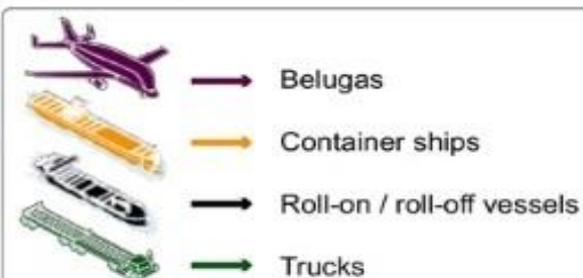
# A320 Family workshare + transport

## Who makes what?

- AIRBUS**
- in **FRANCE**
  - in **GERMANY**
  - in **UK**
  - in **SPAIN**



## Operations in seven countries, three continents, 24 hours a day



# Excerpt: Institutional Sectoral Accounts Template

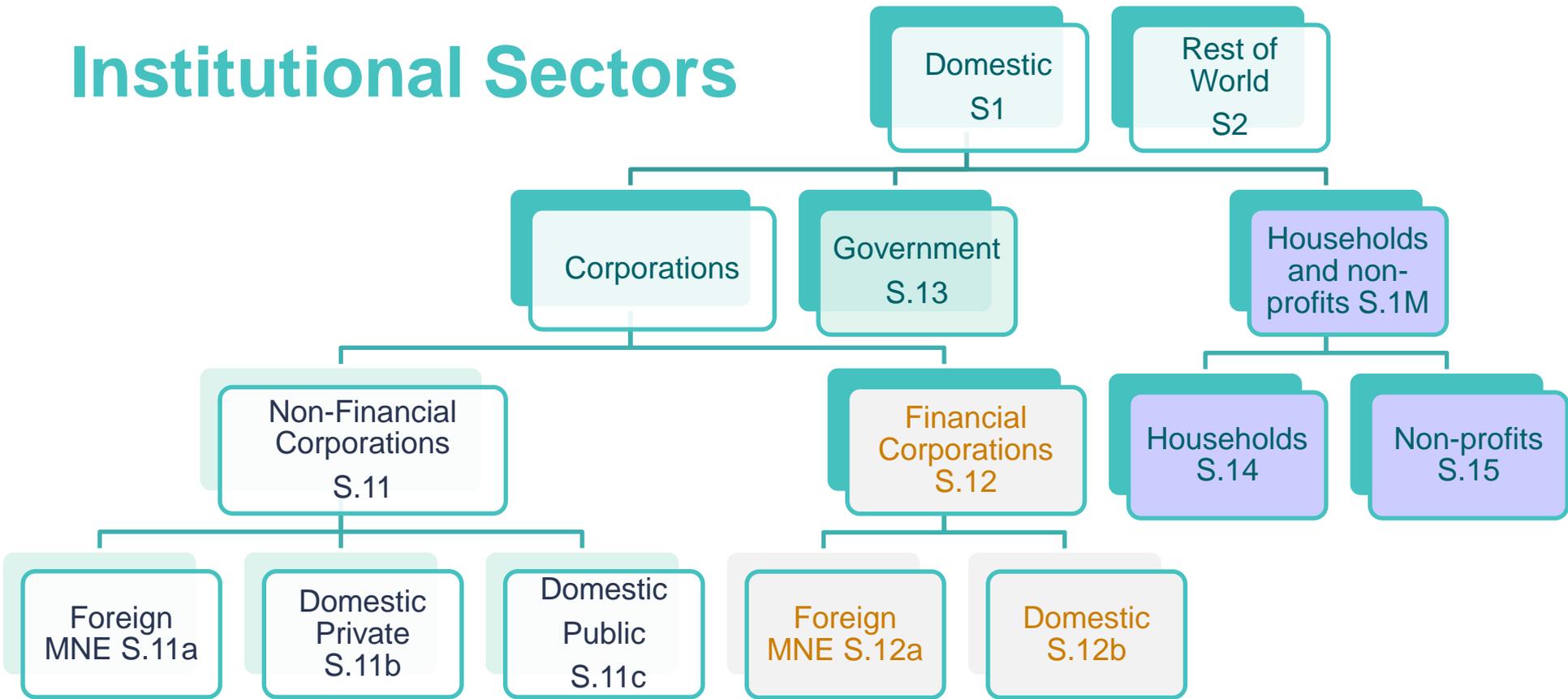
- ✓ It is supported by the existing SNA framework to **identify foreign-controlled nonfinancial/financial corporations.**
- ✓ **But requires additional subsectors**, national private nonfinancial /financial corporations which are part of domestic MNEs
- ✓ **Corporate inversions** can be separately identified as an “of which” category of domestic nonfinancial corporations sector.

Financial Corporations						
Total	Total	Domestically controlled financial corporations				Foreign-controlled financial corporations
		Public financial corporations	<i>Of which:</i> Public financial corporations, which are part of domestic multinationals	National private financial corporations	<i>Of which:</i> National private financial corporations, which are part of domestic multinationals	
<b>S11</b>	S11DO	S11001	S110011	S11002	S110021	S11003

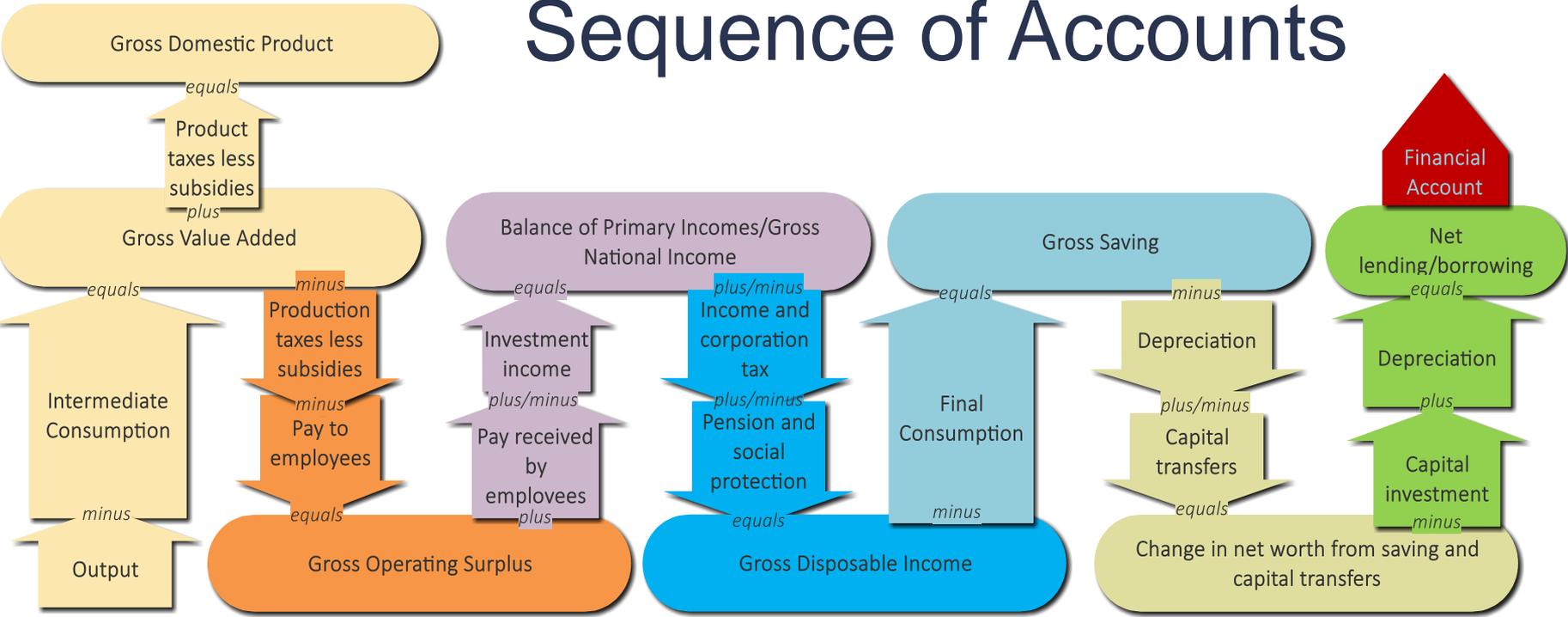
  

Nonfinancial Corporations						
Total	Total	Domestically controlled nonfinancial corporations				Foreign-controlled nonfinancial corporations
		Public nonfinancial corporations	<i>Of which:</i> Public nonfinancial corporations, which are part of domestic multinationals	National private nonfinancial corporations	<i>Of which:</i> National private nonfinancial corporations, which are part of domestic multinationals	
<b>S11</b>	S11DO	S11001	S110011	S11002	S110021	S11003

# Institutional Sectors



# Sequence of Accounts



Production	Generation of income	Distribution of primary income	Distribution of secondary income	Use of disposable income	Change in net worth from saving and capital transfers	Acquisition of non-financial assets
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# Globalization in the Indonesian ISA

❖ The impact of globalization in Indonesia is captured by splitting Nonfinancial Corporations (NFC) Sector in the Indonesian ISA 2019 to describe how MNEs affect the economy

❖ Subsector of NFC:

1. Domestically controlled NFC
2. Foreign-controlled NFC
  - Non-MNE
  - MNE

❖ The number of MNE is not full coverage because SBR is under development

❖ MNE activities are depicted in the current and capital accounts

Non-financial corporations			
Total	Domestically controlled non-financial corporations	Foreign-controlled non-financial corporations	
		Of which : Foreign controlled nonfinancial corporations which are part MNE Group	
S11	S11D0	S11003	





# Impact of foreign MNEs Activities on Gross National Income

In Trillion Rp

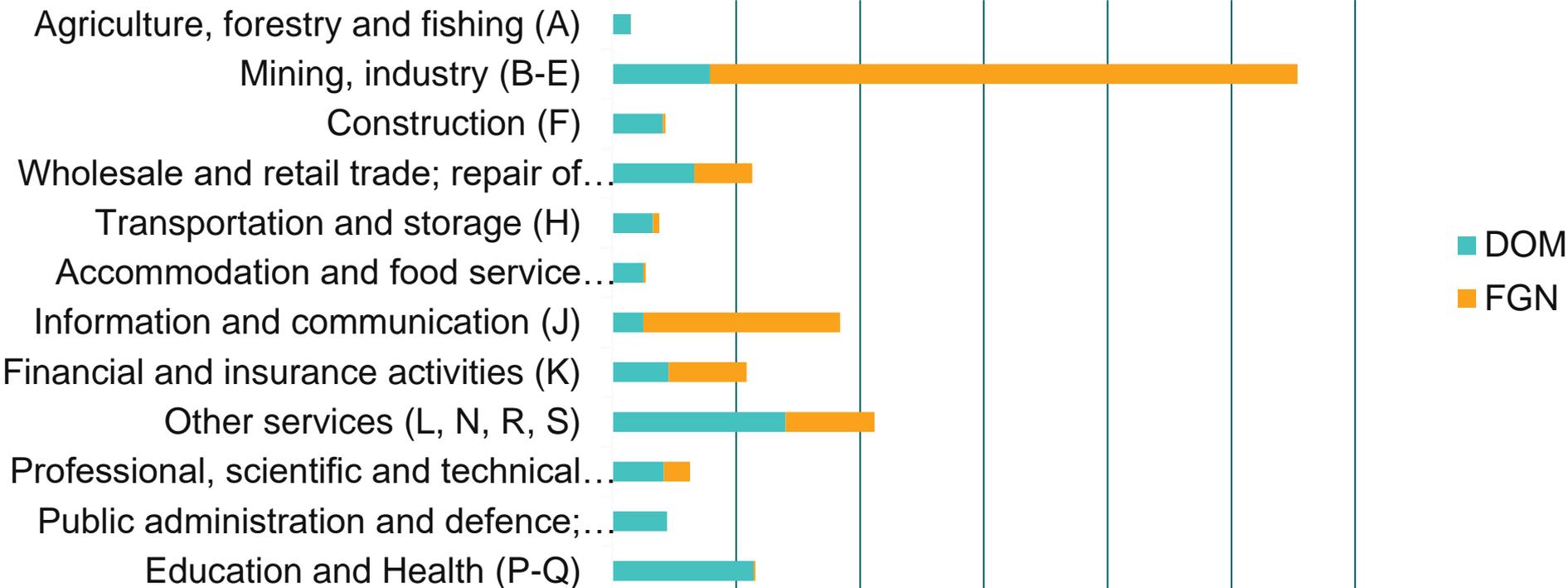
	Non-financial corporations				Rest of the World
	Total (NFC)	Domestically controlled non-financial corporations	Foreign-controlled non-financial corporations		
			Of which: Foreign controlled nonfinancial corporations which are part MNE Group		
	S11	S11D0	S11003		S2
<b>Gross operating surplus</b>	<b>4629</b>	<b>2474</b>	<b>2155</b>	<b>647</b>	
<i>Resources</i>					
Interest	139	74	65	13	216
Property income other than interest	175	93	81	0	366
<i>Uses</i>					
Interest	313	168	146	62	47
Property income other than interest	820	438	382	105	54
<b>Balance of primary incomes</b>	<b>3809</b>	<b>1942</b>	<b>1646</b>	<b>446</b>	
<b>Net lending (+)/net borrowing (-)</b>	<b>-628</b>	<b>-435</b>	<b>-426</b>	<b>203</b>	<b>429</b>

Foreign-owned MNE						Domestic-owned MNE						Non-MNE														
Exporter			Non-Exporter			Exporter			Non-Exporter			Exporter			Non-Exporter											
Imp		Non-Imp	Imp		Non-Imp	Imp		Non-Imp	Imp		Non-Imp	Imp		Non-Imp	Imp		Non-Imp									
S	M	L	S	M	L	S	M	L	S	M	L	S	M	L	S	M	L	S	M	L	S	M	L	S	M	L

- Dimensions: Ownership, Export orientation, Import orientation, Firm size class
- OECD “possible” breakdown of columns and rows for each industry in extended supply use table (SUT)
- Experimental approach
  - Focus on MNE breakout
- Microdata linking
  - Expanded to export orientation and firm size class in current work
  - Will consider import orientation and other possible criteria in long-run research

# GVA Domestic and Foreign - €bn

0 20 40 60 80 100 120



# RECOMMENDATION : A refined definition for MNE, emphasizing “control”

## *MNE is a legal entity that:*

- has at least one nonresident affiliate or branch, and;
- exercises control over its affiliate(s) or branch(es) either directly—by owning over **50 percent** of the voting power in the entity—or by *indirect transmission* of control.
- The MNE is the ultimate controlling parent (UCP)— the direct investor at the top of the control chain. **The MNE group** consists of the MNE and the set of legal entities—regardless of their economies of residence—that are under the control of the same UCP.



# Including Depreciation / Degradation in Economic Growth - Need to focus on Net measures

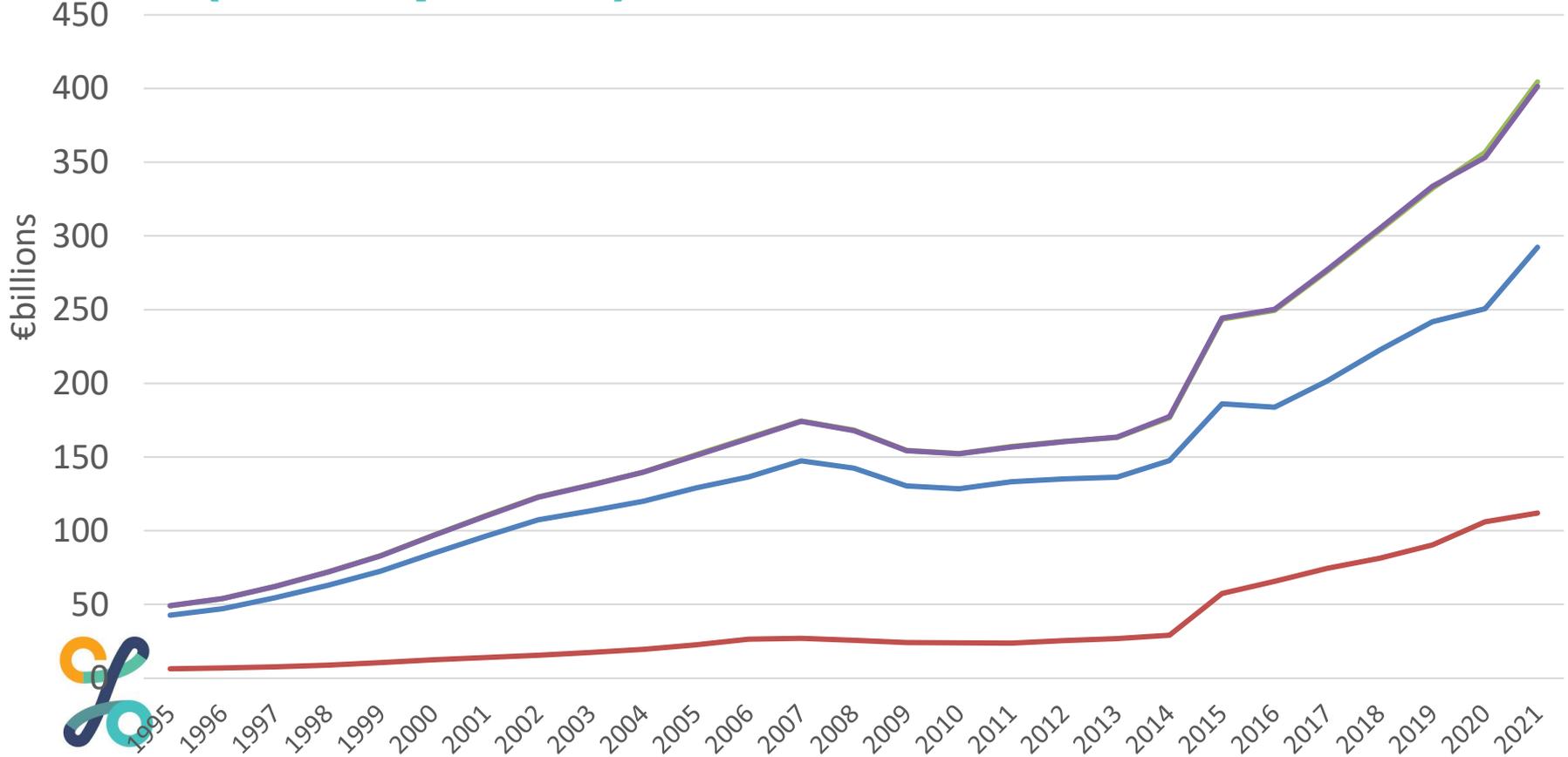


# Why 'net'?

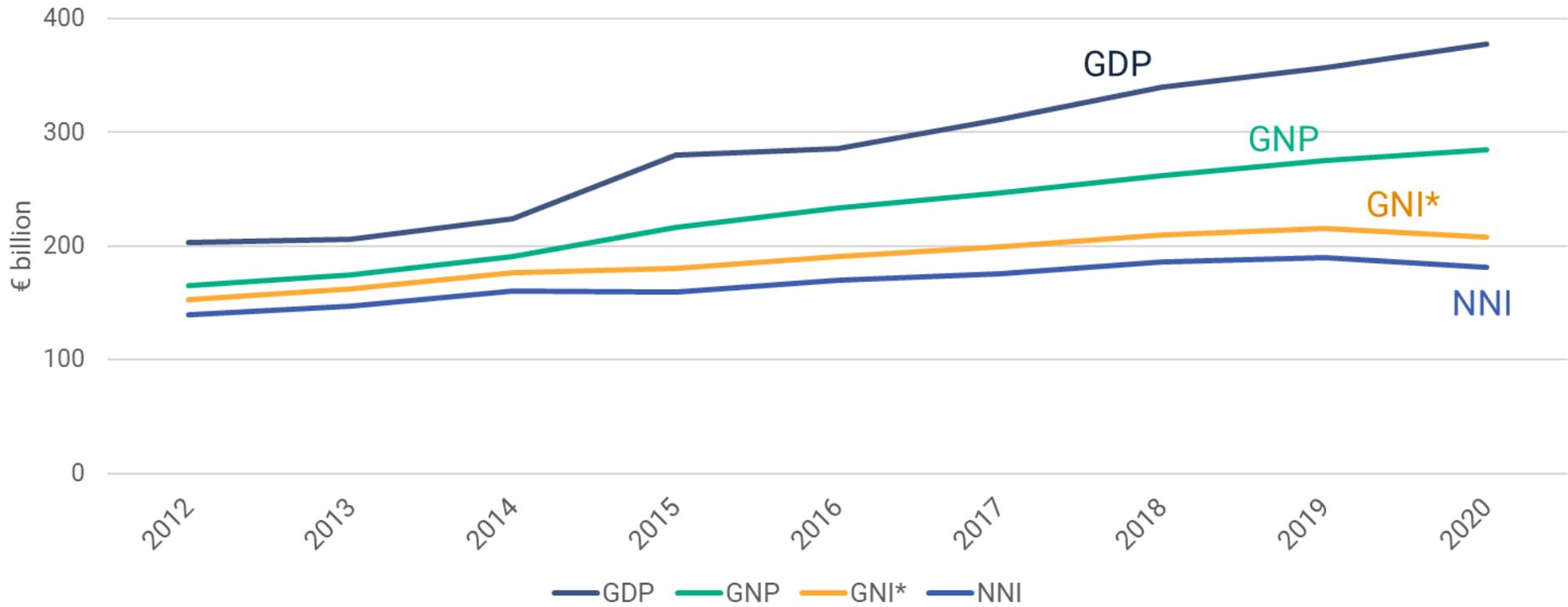
- GDP contains depreciated investment and its replacement investment - double counting
- Stiglitz, Sen & Fitoussi Report (2009): use *net* instead of *gross* to mitigate inappropriate use of national accounts.
- Net income closer approximates sustainable income: the income that can be consumed in period without being worse off.
- The next SNA will include depletion adjusted income
- Net product is less prone to globalisation shocks



# Net Value Added (factor cost) v's Gross Value Added (basic prices)



# Ireland: GDP, GNP, Modified GNI and NNI at constant prices



## Summary : G.2 Treatment of MNE and Intra-MNE Flows

- **GN proposes highlighting MNEs**—recommend a breakdown (e.g., **foreign-controlled corporations and national private/public corporations which are part of domestic MNEs**) in the national accounts through the institutional sector accounts (ISAs), eSUTs (extended supply-use tables), and/or gross value-added (GVA) should be determined by :
  - *national agencies dependent on their statistical production process,*
  - *users' analytical and policy needs.*
- **GN incorporates:** A refined definition for MNE, emphasizing “**control**” as defined by *BD4* and
- **Include** emphasis on Net indicators and supplemental granular information.

## SPEs simply corporate letterboxes?

- Accounting statements
- Balance Sheets
- Transactions
- Employees ?



# Growing Importance and Complexity of SPEs

## Traditional typology (*BPM6* and *2008 SNA*)

Mostly set up by financial institutions for financial activities

Arrange worldwide borrowing and lending activities for MNEs

Narrow, specific financial activities, such as securitization

Mostly engaged in pass-through and round-tripping direct investment



## Currently

Also nonfinancial entities involved in R&D, trade, and other activities for group-wide profit maximization

Reallocate the collection and distribution of royalties, license and other fees, profits, intellectual property products, etc.

Broad range of financial and non-financial activities, even some not "SPE-like"

Direct, portfolio and other investment, as well as current and capital account transactions

# DEFINITION

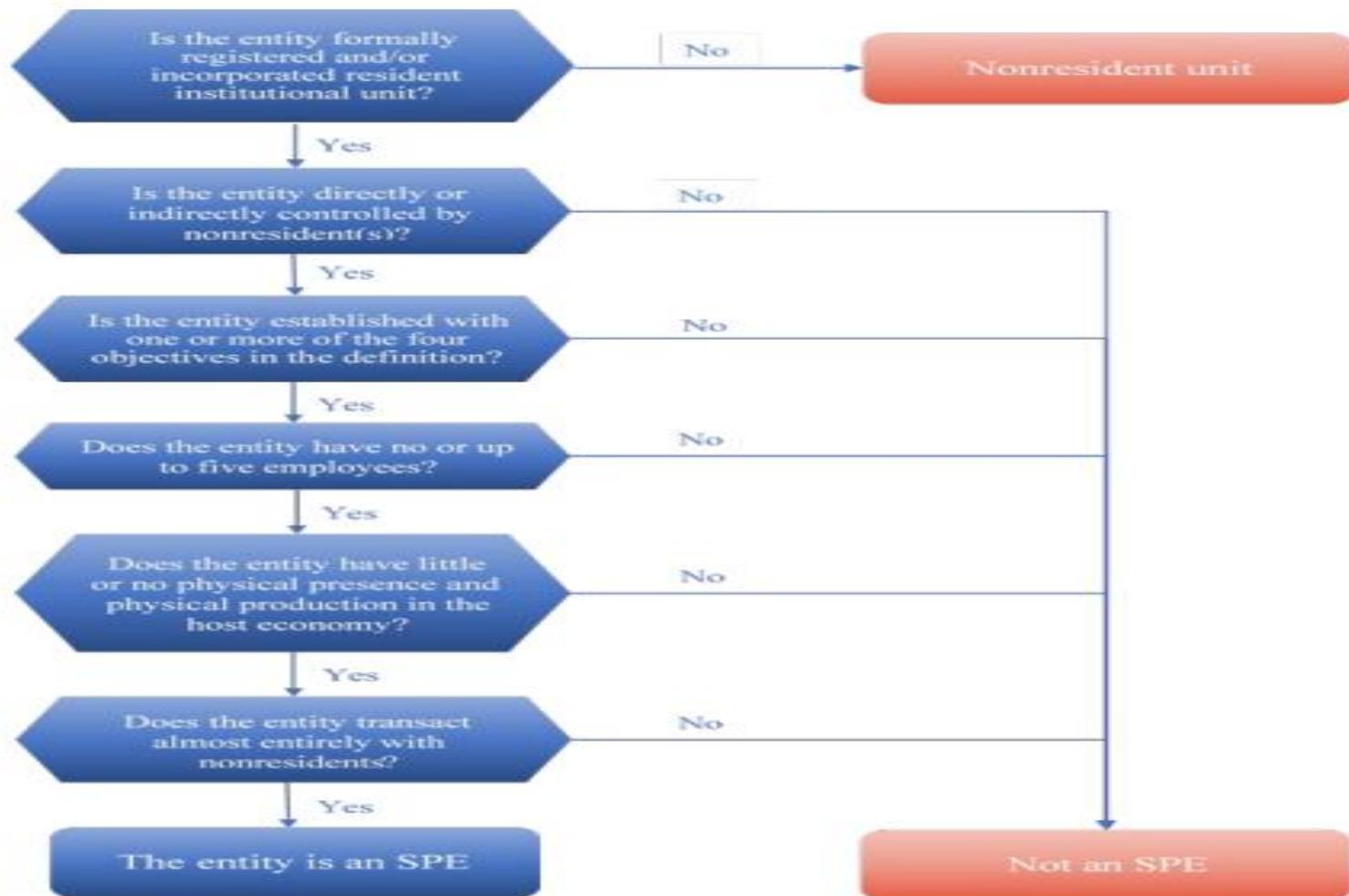
*An SPE, resident in an economy, is a formally registered and/or incorporated legal entity recognized as an institutional unit, with no or little employment up to a maximum of five employees, no or little physical presence and no or little physical production in the host economy.*

*SPEs are directly or indirectly controlled by nonresidents.*

*SPEs are established to obtain specific advantages provided by the host jurisdiction with an objective to (i) grant its owner(s) access to capital markets or sophisticated financial services; and/or (ii) isolate owner(s) from financial risks; and/or (iii) reduce regulatory and tax burden; and/or (iv) safeguard confidentiality of their transactions and owner(s).*

*SPEs transact almost entirely with nonresidents and a large part of their financial balance sheet typically consists of cross-border claims and liabilities.*

**Figure 1. Decision Tree to Identify Resident SPEs for External Sector Statistics**



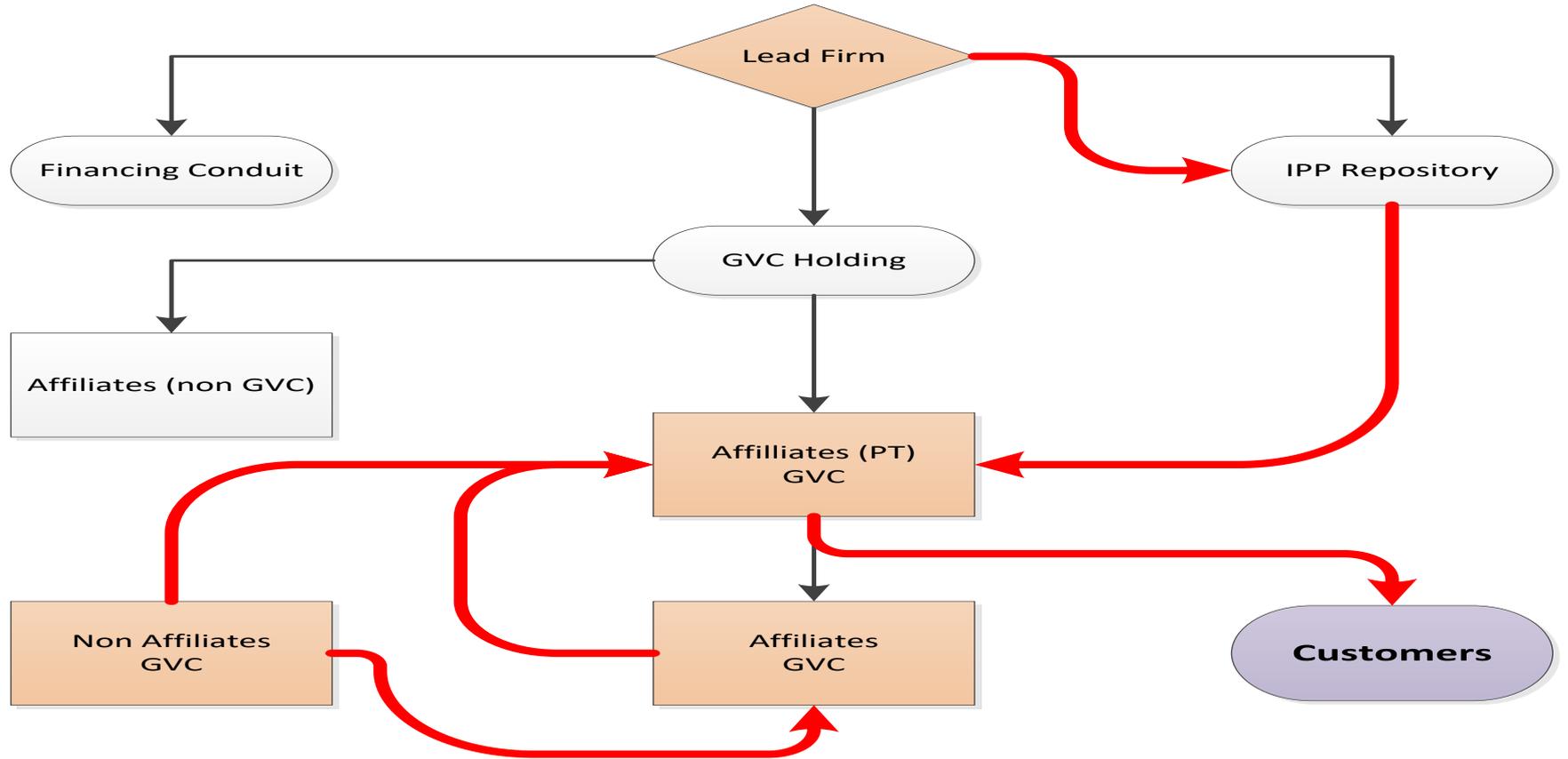
# Treatment of SPEs: Options considered

3

**Option 3: Proposal to extend the existing framework, adopting the nationality-based presentation as alternative concept, without departing from the current statistical *SNA/BPM* framework.**

- Changes suggested by Borga and Caliendo (2018) and Rassier (2017), if implemented as supplemental presentations, could yield meaningful enough departures from current practice.
- **Views** that this be considered on a **supplemental basis to complement residence-based statistics. A viable option only for countries for which SPEs were deemed important**
  - Would give rise to country specific practicality issue of implementation – too ambitious and resource intensive.
  - To undertake this approach, data sharing agreements will become a priority.
  - Nonetheless, both approaches as complements will meet the practicalities and policy needs of countries for which these presentations would bring value addition to analysts or policymakers.
  - Nationality-based framework would complement the existing residence-based framework, which identifies where financial claims and liabilities are held.

GZTT  
options  
considered



Line of control  
Supplier relationship



# Summary: G.4 Treatment of Special Purpose Entities and Residency

GN recommends **no change** made to the residency principle in the SNA and BOP frameworks, SPEs with non-resident parents should **continue to be classified as institutional units** in the economic territory in which they are located.

A **definition** of SPEs that is **consistent** between national accounts and external sector statistics.

Distinguishing **separate “of which” category** (within the non-financial and financial corporations’ sectors) for foreign-controlled SPEs.

- ✓ **Unanimously supported the proposals** on (i) adopting the SPEs definition, in both *BPM7* and *2025 SNA*; and (ii) integrating the proposed breakdown of foreign controlled SPEs within the ISAs for countries for which SPEs are significant, leaving the core BPM and SNA framework unchanged.
- ✓ Agreed to drop the term “foreign controlled” before SPEs given that the definition already contains foreign control as one of its elements.



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# Global Value Chains and Trade in Value Added - GZ.7 Multi-National Trading Arrangements – GZ.6/GZ.8

# MNE Trading Arrangements

- Why have Global Production arrangements (GVCs) developed
- Consider a few examples of the concepts - Goods for Processing (GFP), Factoryless Goods Production (FGP) and Merchanting
- Real impacts on National Accounts of getting Global Production right and wrong
- TiVA indicators, addressing the double counting implicit in gross flows of trade,
- GVC satellite account
- More granularity using the extended supply and use tables (eSUTs)

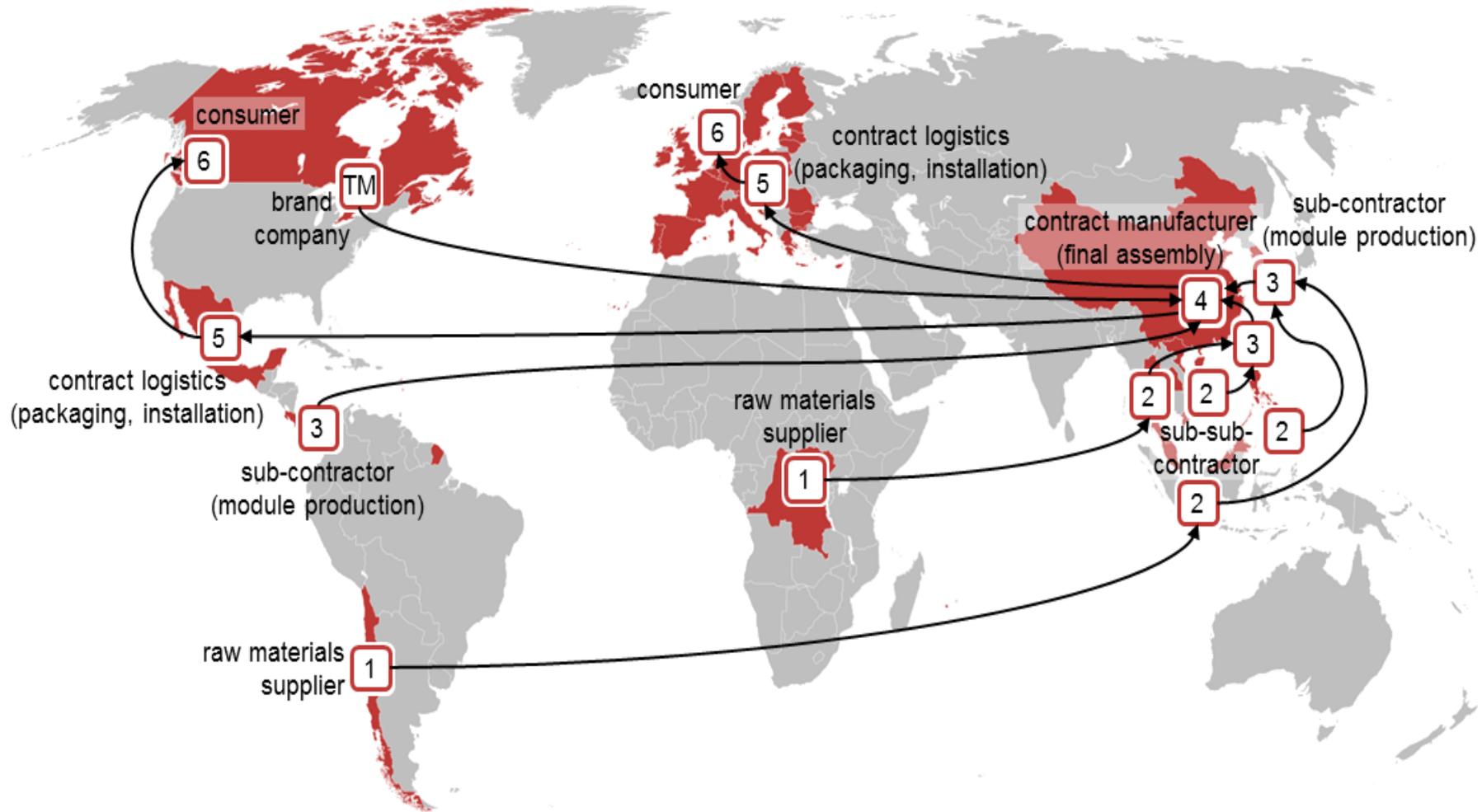


# Before - all the activity at one site

Now:

- Fragmentation
- Specialisation
- Cost optimization
- Tax optimization

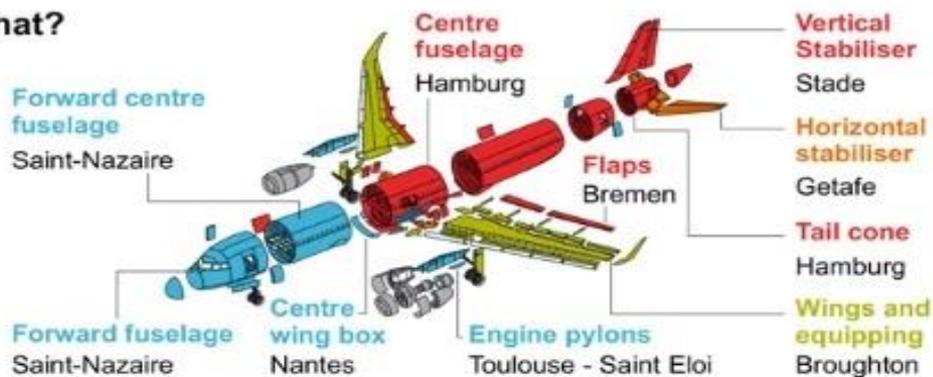




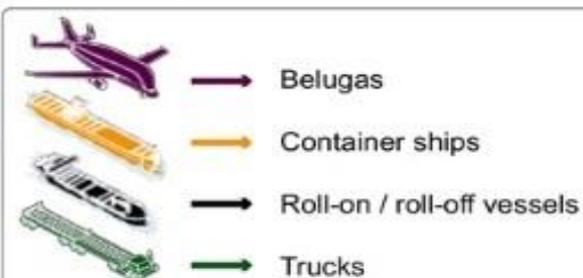
# A320 Family workshare + transport

## Who makes what?

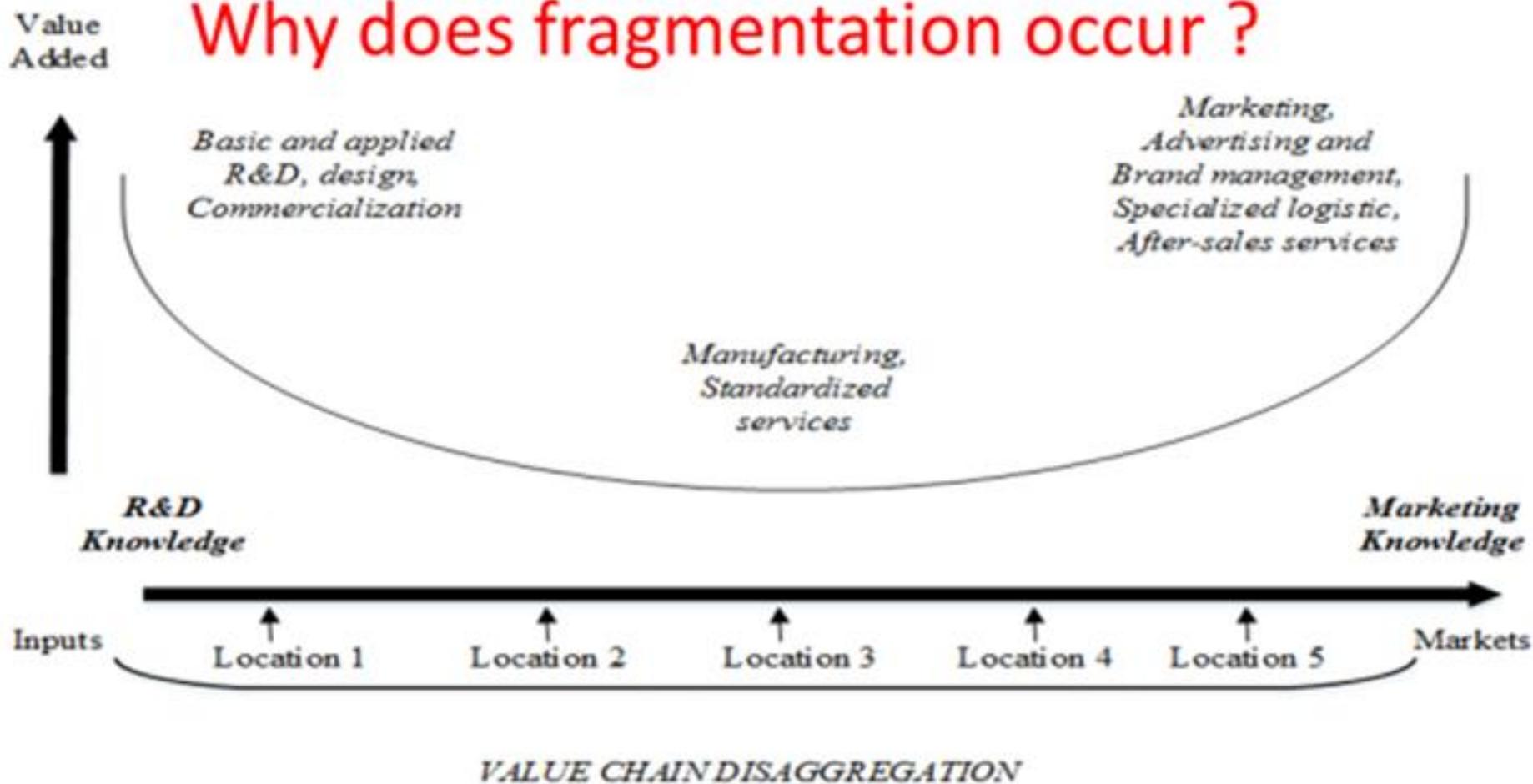
- AIRBUS**
- in **FRANCE**
  - in **GERMANY**
  - in **UK**
  - in **SPAIN**



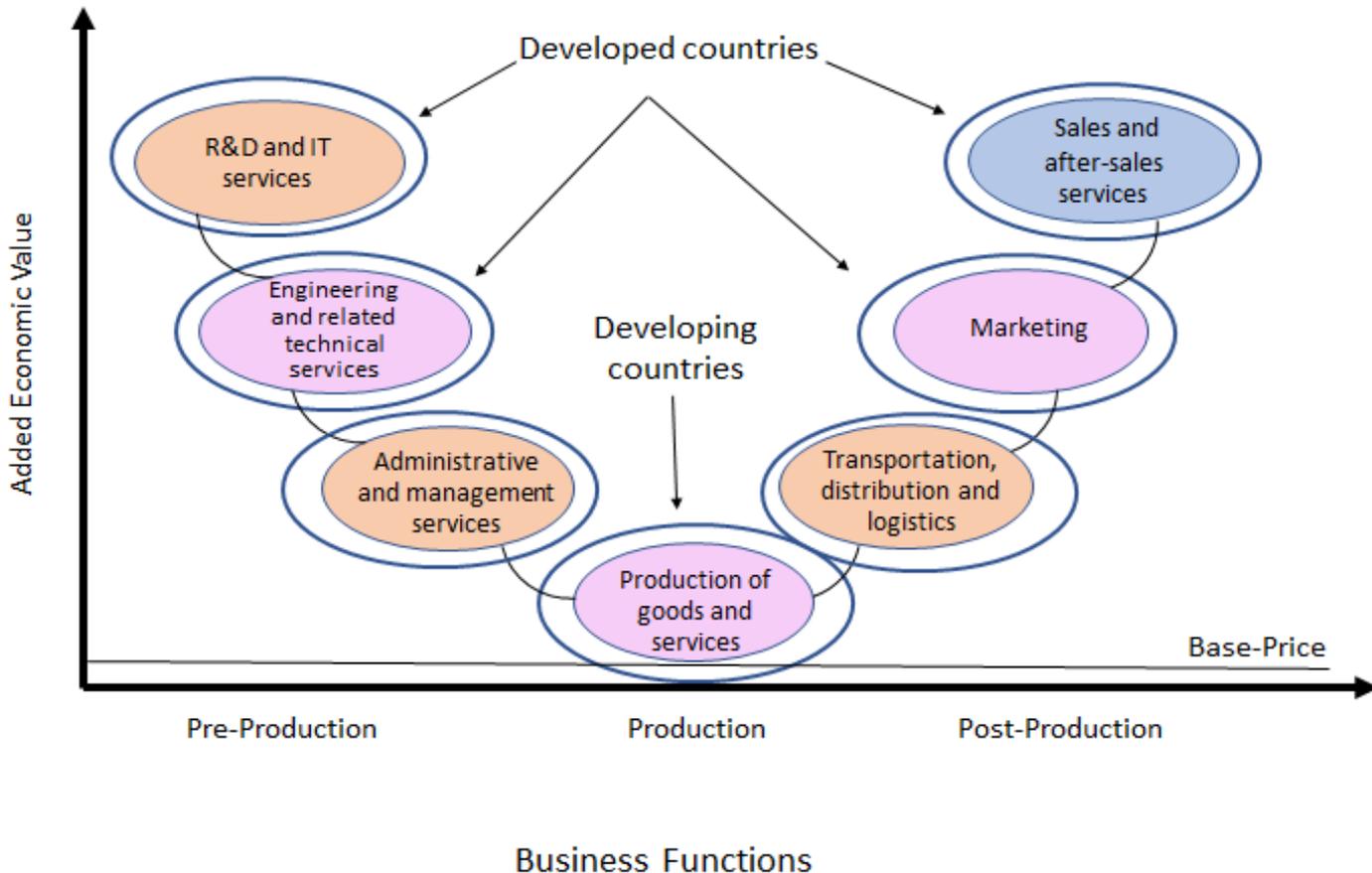
## Operations in seven countries, three continents, 24 hours a day



# Why does fragmentation occur ?

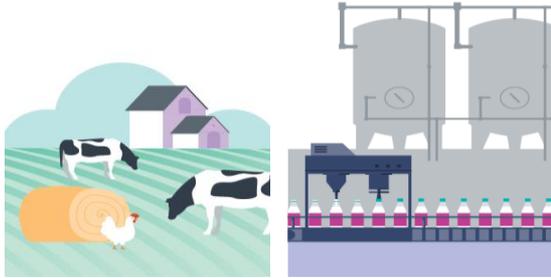


# How business functions are generally located about generation of value added in a GVC



# An Agriculture and Food Value Chain

Production



Imports



Distribution



Household Consumption



Exports



# Classifications used

## Business Functions

- A business line represents a sequence of business functions controlled by the lead firm
- Can be mapped to the reference classification of products and economic activities

## GVC participating firms

- Firms are classified according to their role in the GVC (whether lead firm, affiliated or non-affiliated supplier)

## GVC products by GVC industry

- A standardized list of product codes and descriptions for industry specific GVCs
- Can be mapped to HS for traded products and CPC for the SUT framework

## GVC institutional sectors

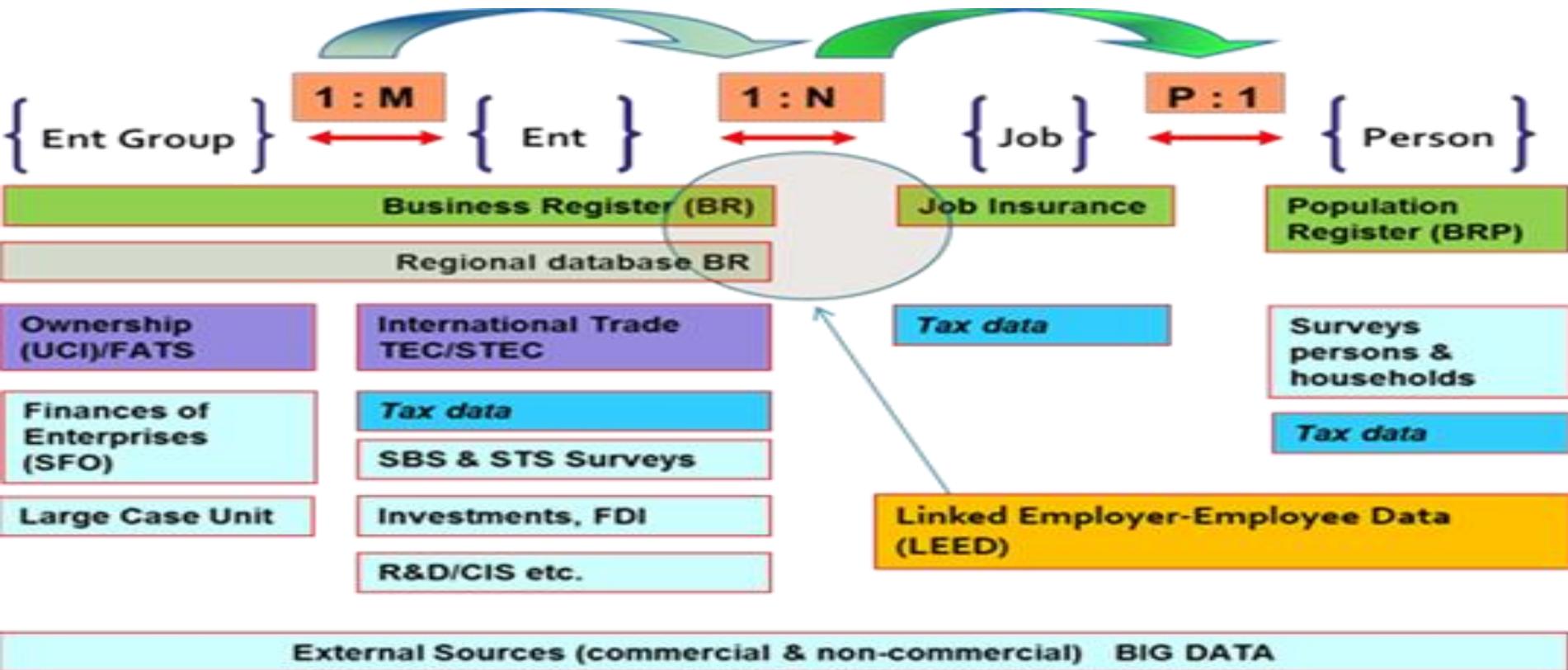
- An extension to the institutional sector framework is largely made to accommodate concepts from FDI

## GVC functional breakdown

- Enhances the standard BOP/IIP functional classification to include a separate category distinct from foreign direct investment – namely *other inter-company financing*

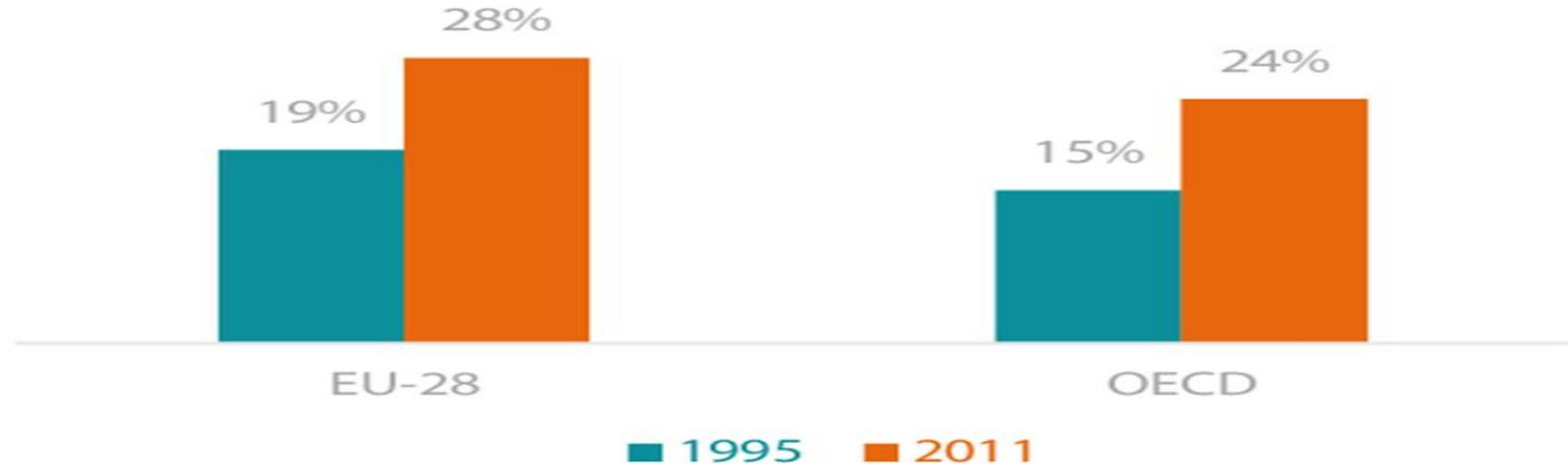


# General MDL Model used at Statistics Netherlands



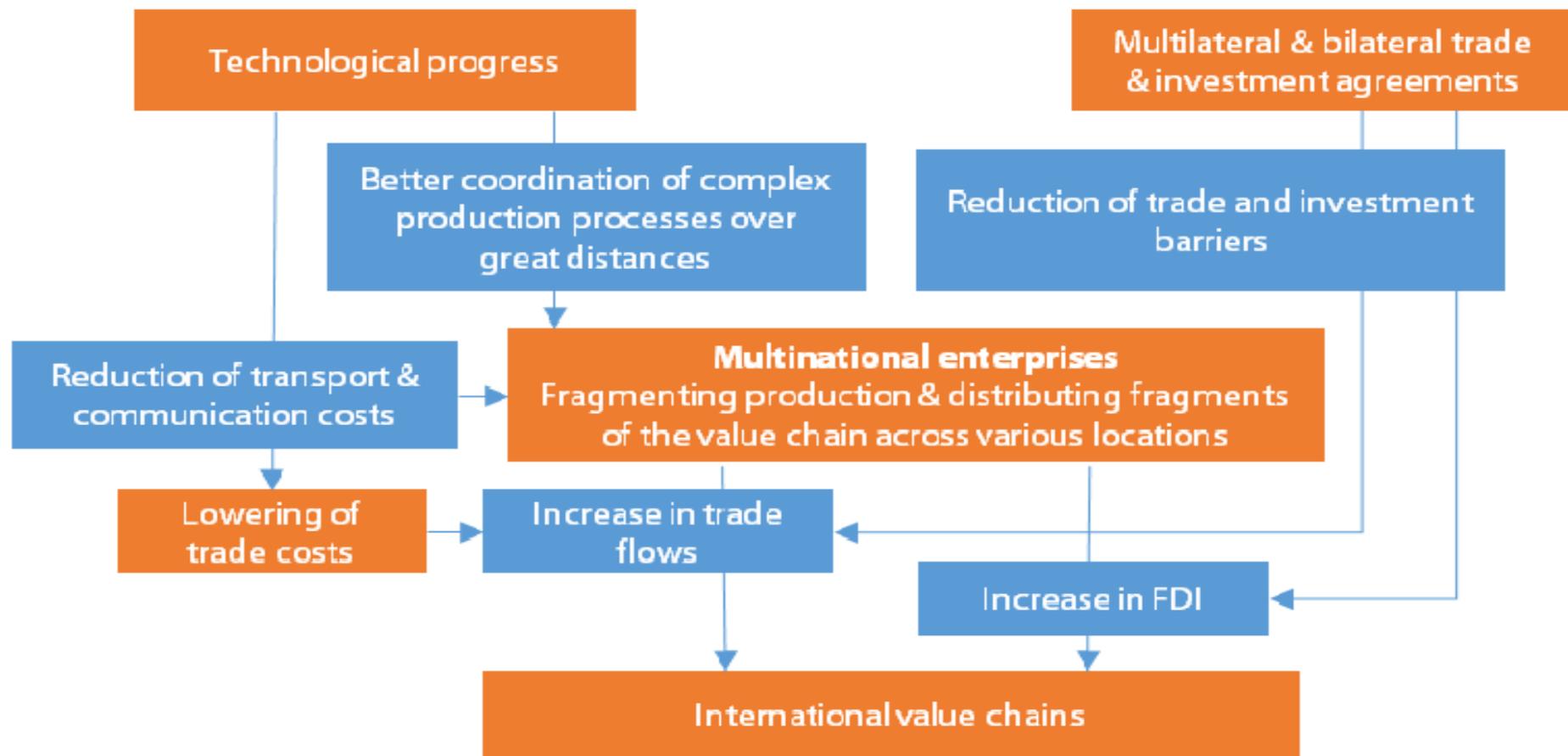
# Why? OECD / WTO Trade in Value Added

Figure 1 – Import content of exports (% of gross exports), 1995 and 2011



Source: [Statistics on trade in value added: Trade in value added](#), OECD-WTO, 2019.

Figure 2 – Mapping the drivers



# CATEGORIES BY EXTENSION



## Export Focus

### ToR OCDE:

- Exporter
- Non Exporter

### ESUT Mexico:

- Exporter
- Non Exporter
- **Formal**
- Non Exporter
- **Informal**

## Ownership Focus

### ToR OCDE:

- Foreign Owned
- Domestically owned MNE
- Domestic Owned

### ESUT Mexico:

- Domestic Owned
- **Affiliate** Domestic Owned
- Foreign Owned
- **Affiliate** Foreign Owned

## Hybrid/ Integrated Focus

### ToR OCDE:

- Foreign Owned
- Domestically owned MNE
- Domestic Owned (Small)
- Domestic Owned (Medium)
- Domestic Owned (Large)

### ESUT Mexico:

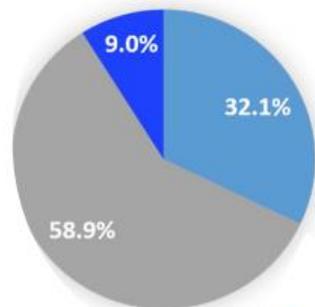
- Export Focus
  - Domestic Owned
    - ✓ Small
    - ✓ Medium
    - ✓ Large
  - Affiliate Domestic Owned
    - ✓ Small
    - ✓ Medium
    - ✓ Large
  - Foreign Owned
    - ✓ Small
    - ✓ Medium
    - ✓ Large
  - Affiliate Foreign Owned
    - ✓ Small
    - ✓ Medium
    - ✓ Large
- Non Export Focus
  - **Formal**
  - **Informal**

Foreign-owned MNE						Domestic-owned MNE						Non-MNE														
Exporter			Non-Exporter			Exporter			Non-Exporter			Exporter			Non-Exporter											
Imp		Non-Imp	Imp		Non-Imp	Imp		Non-Imp	Imp		Non-Imp	Imp		Non-Imp	Imp		Non-Imp									
S	M	L	S	M	L	S	M	L	S	M	L	S	M	L	S	M	L	S	M	L	S	M	L	S	M	L

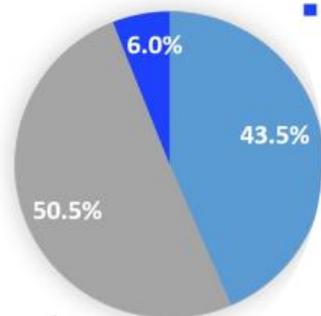
- Dimensions: Ownership, Export orientation, Import orientation, Firm size class
- OECD “possible” breakdown of columns and rows for each industry in extended supply use table (SUT)
- Experimental approach
  - Focus on **MNE** breakout
- Microdata linking
  - Expanded to **export orientation** and **firm size class** in current work
  - Will consider import orientation and other possible criteria in long-run research

## Exporter Focus

Supply



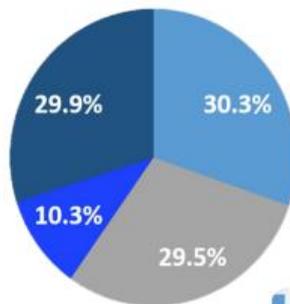
Use



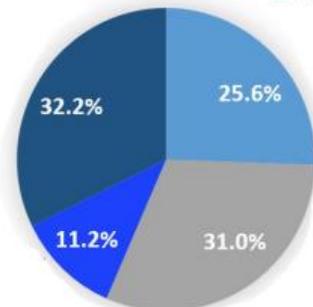
- Exporter
- Non Exporter Formal
- Non Exporter Informal

## Ownership Focus

Supply\*



Use\*

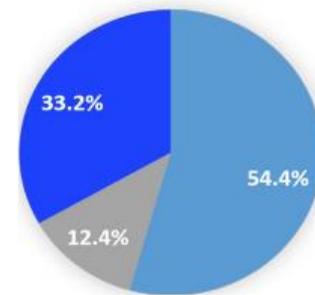


- Domestic Owned
- Affiliate Domestic Owned
- Foreign Owned
- Affiliate Foreign Owned

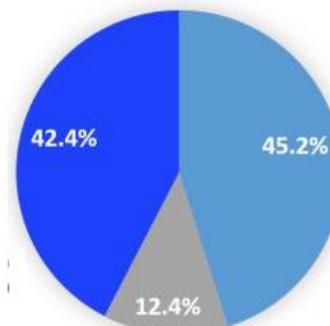
\*Economic Units are classified as exporters.

## Size class

Supply



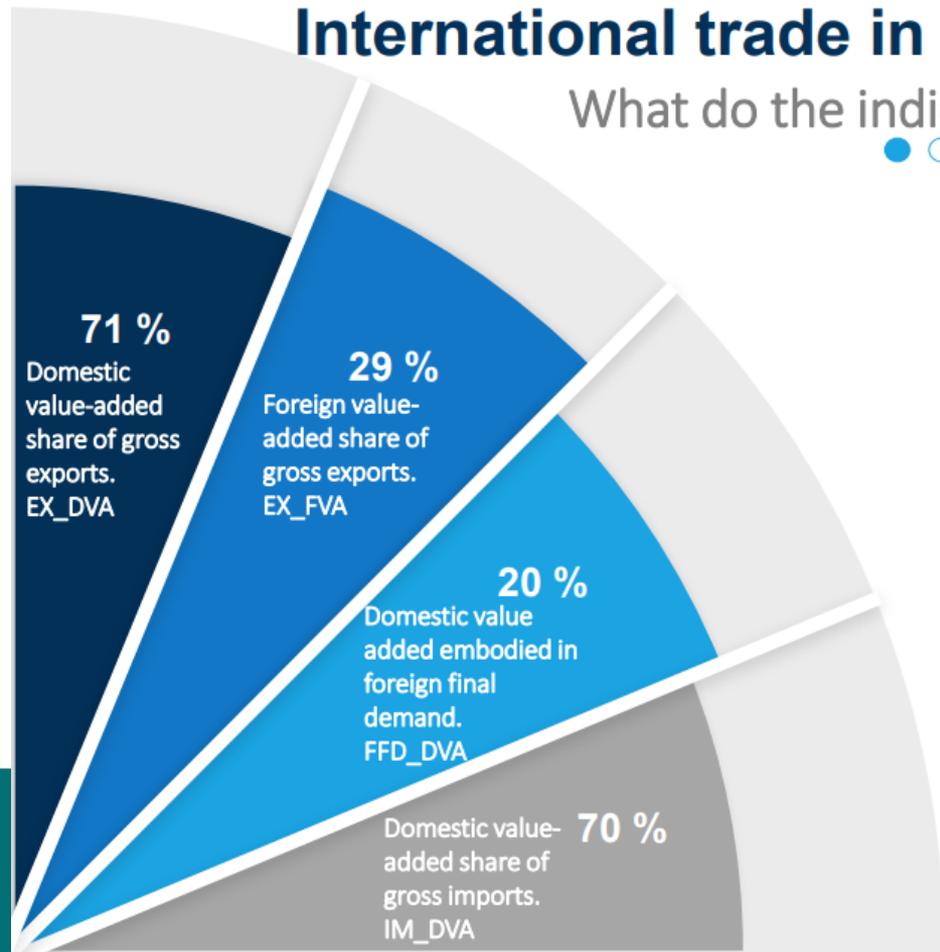
Use



- Small
- Medium
- Large

# International trade in value added indicators

What do the indicators measure?



1

**EX\_DVA**

It measures the total domestic value added generated in the local economy  $c$  contained in exports to the partner country  $p$ .

2

**EX\_FVA**

Measures the content of foreign value added in gross exports of intermediate goods and services incorporated in the total gross exports of the local country  $c$ .

3

**DFE\_VAD**

It measures the domestic value added contained in the final goods and services that local industries export to partner countries.

4

**IM\_DVA**

It is the domestic value added generated in the local country that returns to the local country  $c$  contained in the gross imports of the industry  $i$  of the partner country.



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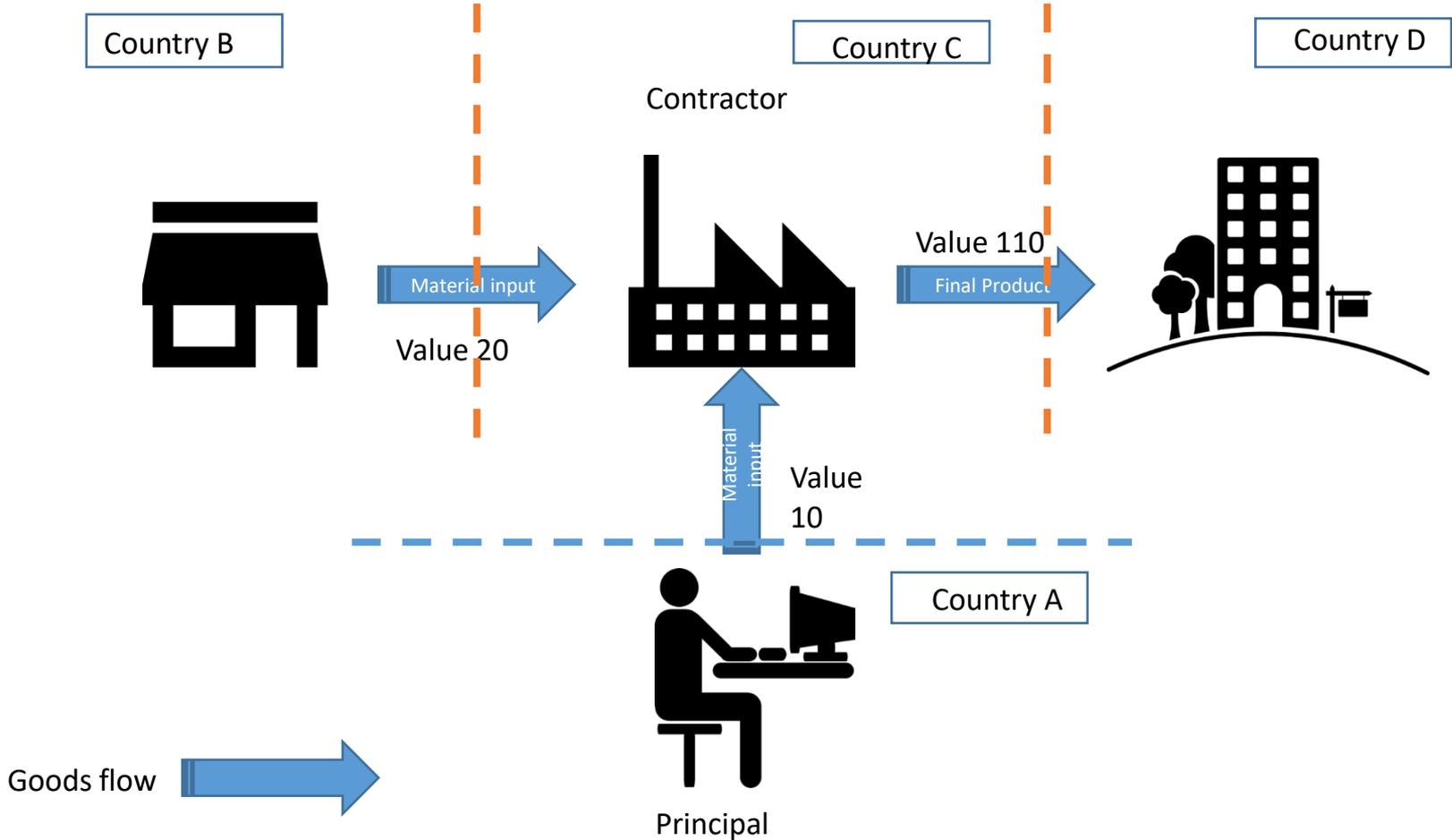
# Factoryless Goods Production and Contract Manufacturing



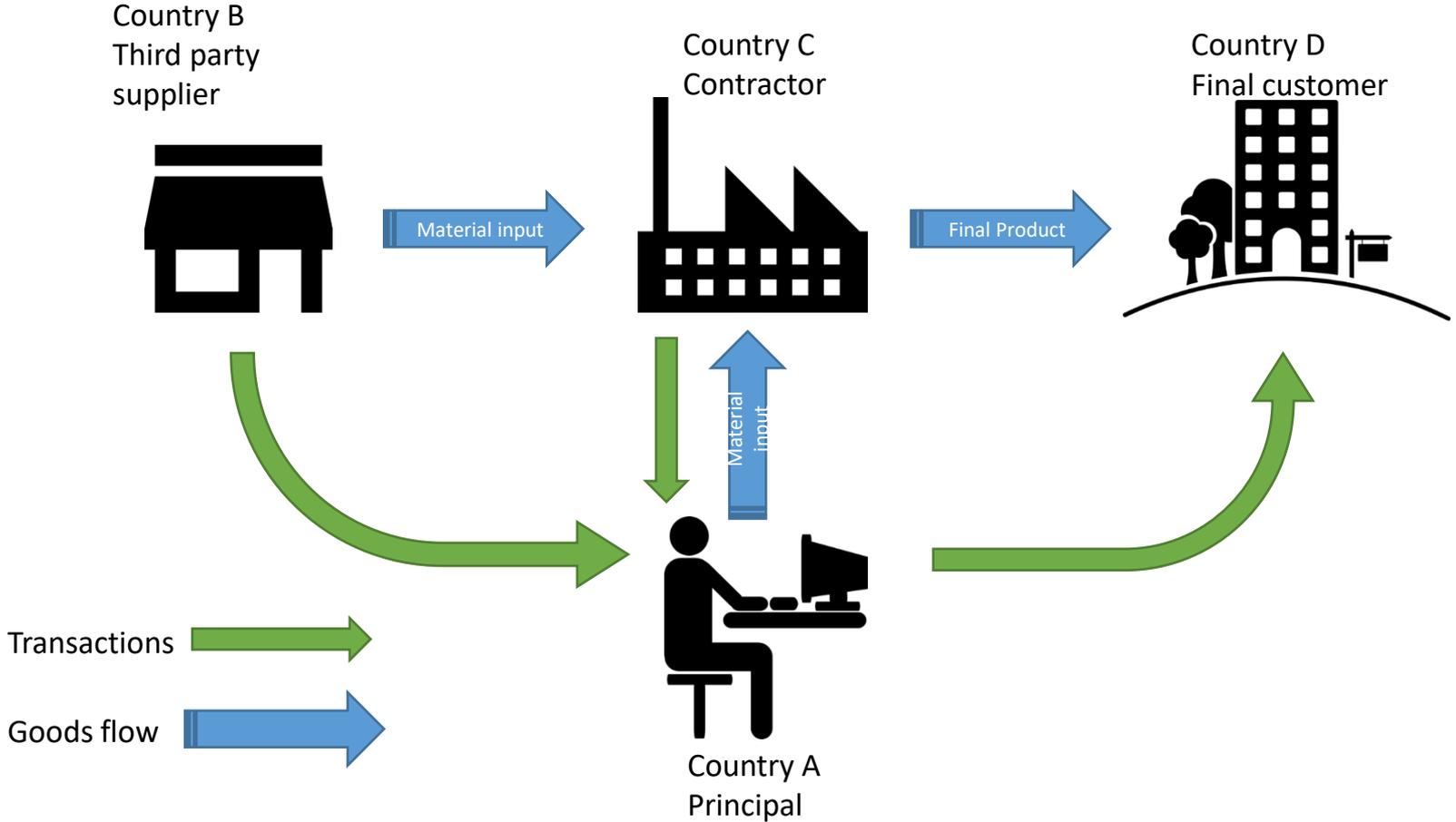
# MNE Trading Arrangements

- Consider a few examples of the concepts - Goods for Processing (GFP), Factoryless Goods Production (FGP) and Merchanting
- Recording data on a change in economic ownership basis v's cross border movements
- Real impacts on National Accounts of getting Global Production right and wrong





# The flows of goods and transactions in a processing arrangement



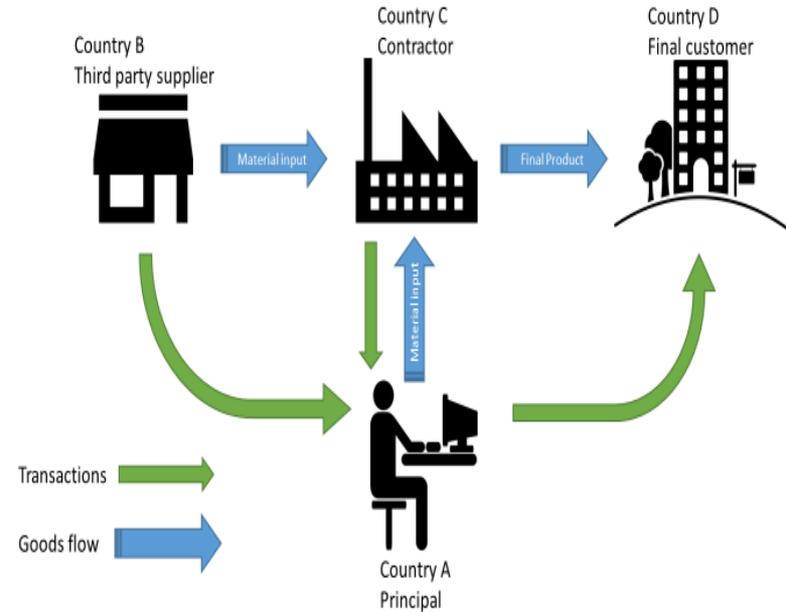
# In a processing setup

BoP transactions	Import	Export
<b>Principal</b>		
Sale of final good		X
Purchase of material inputs	X	
Purchase of manufacturing services	X	
Adjustment for goods crossing the border (ITGS)		X
<b>Contractor</b>		
Sale of manufacturing services		X
Adjustment for goods crossing the border (ITGS)	X	X
<b>Third party supplier of material inputs</b>		
Sale of material inputs		X
<b>Final customer</b>		
Purchase of final good	X	

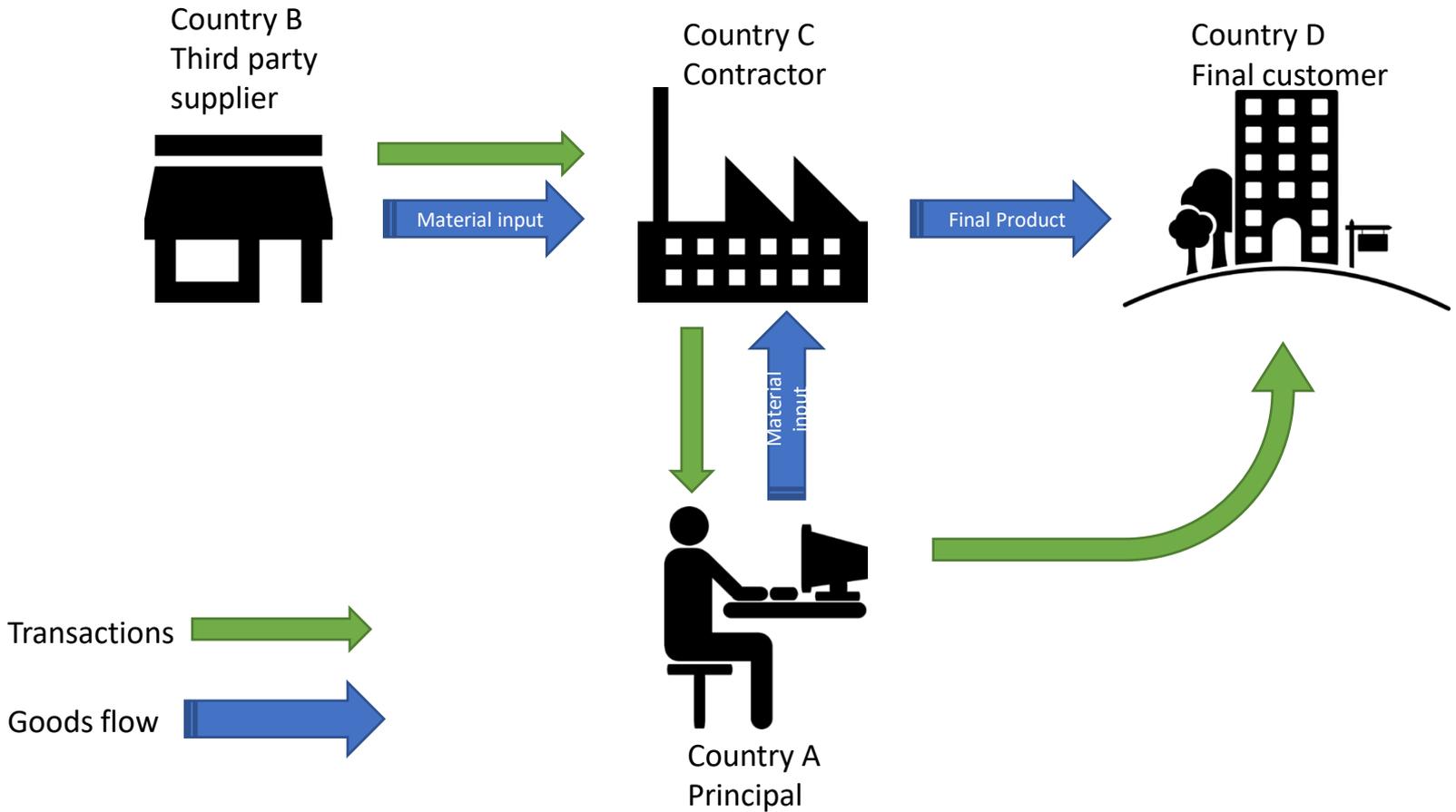
# In a processing setup - Principal owns all material inputs during transformation

BoP transactions	Import	Export
<b>Principal</b>	<b>40</b>	<b>110</b>
Sale of final good		110
Purchase of material goods abroad	20	
Purchase of manufacturing services	20	
Adjustment for goods crossing the border (ITGS)		-10
<b>Contractor</b>	<b>0</b>	<b>20</b>
Sale of manufacturing services		20
Adjustment for goods crossing the border (ITGS)	-30	
<b>Third party supplier of material goods</b>	<b>0</b>	<b>20</b>
Export of material goods		20

The flows of goods and transactions in a processing arrangement



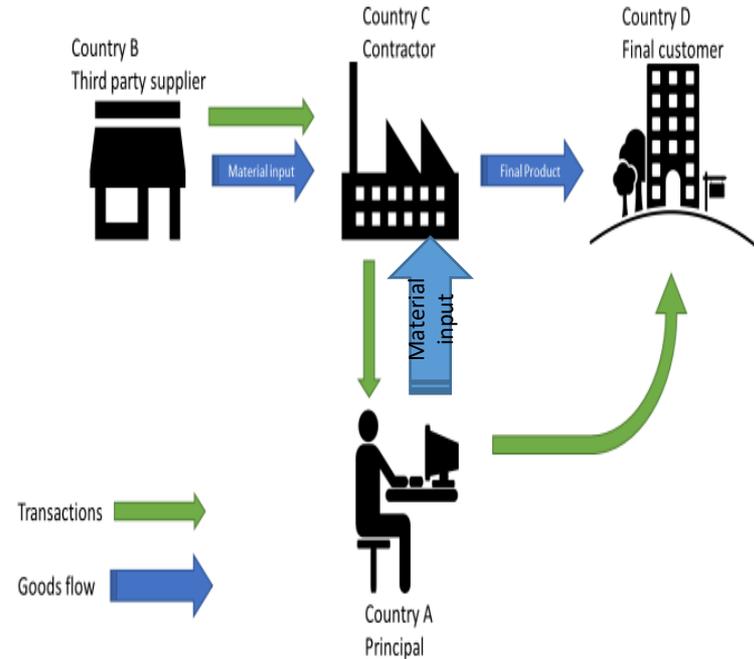
# The flows of goods and transactions in a FGP type arrangement



For FGP - Option 1 net the sale of material inputs, reduce the inflation of trade, retain material inputs bought abroad.

BoP transactions	Import	Export
<b>Principal</b>	<b>50</b>	<b>120</b>
Sale of final good		110
<b>Net export of material inputs</b>		<b>10</b>
Purchase of material input		-20
Sale of material input		30
Purchase of goods after transformation	50	
<b>Contractor</b>	<b>30</b>	<b>50</b>
Sale of transformed goods		50
Purchase of material goods	30	
<b>Third party supplier of material goods</b>	<b>0</b>	<b>20</b>
Export of material goods		20

The flows of goods and transactions in a FGP type arrangement

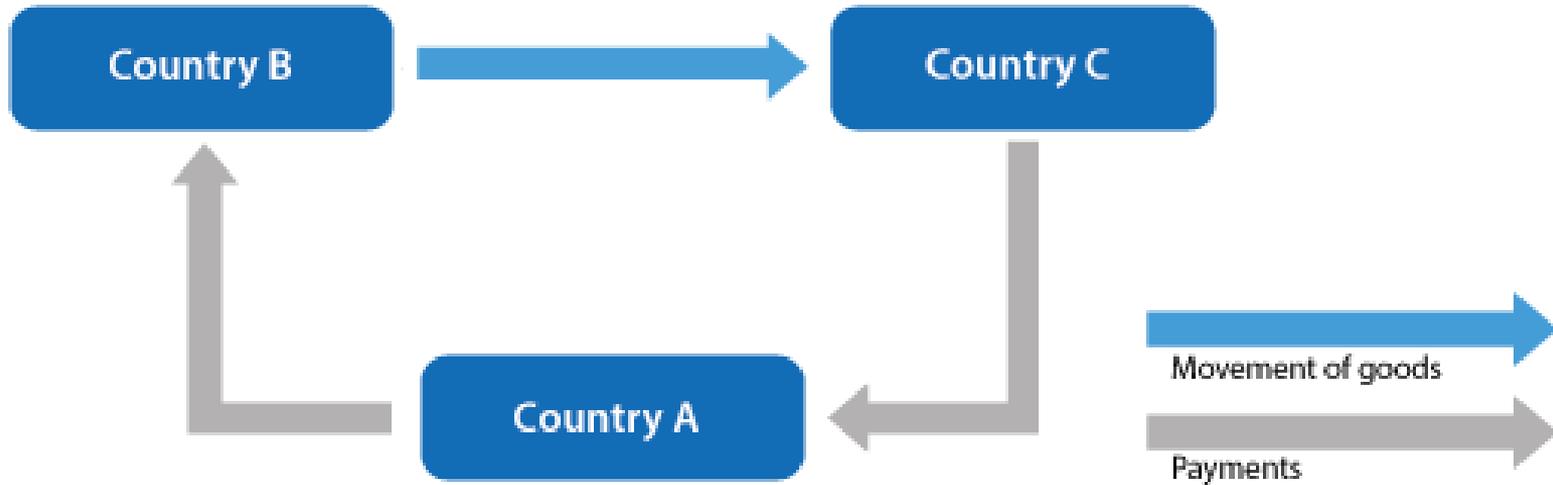


# In a FGP setup

- Principal owns all materials input before transformation, sells them during transformation and rebuy the final goods.

BoP transactions	Import	Export
<b>Principal</b>	<b>70</b>	<b>140</b>
Sale of final good		110
Purchase of material goods	20	
Purchase of goods after transformation	50	
<b>Sale of material goods</b>		<b>30</b>
<b>Contractor</b>	<b>30</b>	<b>50</b>
Sale of transformed goods		50
Purchase of material goods	30	
<b>Third party supplier of material goods</b>	<b>0</b>	<b>20</b>
Export of material goods		20

# An Example of Merchanting of Goods



*Merchant in country A*



€  
millio  
n

**Table 1.3 Current and Capital Accounts**

Item		2019 2020		2020				2021	
		Year	Year	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2
<b>Current Account</b>									
Merchandise <sup>1</sup>	Exports	225,944	244,809	62,528	57,033	61,349	63,899	68,821	69,057
	Imports	107,828	99,856	24,872	22,756	23,454	28,774	25,164	26,777
	<i>Cross border trade</i>								
International trade	Exports	152,535	161,894	44,206	37,848	40,540	39,300	40,454	40,366
	Imports	87,486	83,022	20,894	17,714	19,659	24,755	20,583	25,091
Goods for processing	Exports	66,264	73,945	14,737	16,728	18,535	23,945	25,257	21,162
	Imports	16,394	14,851	3,230	4,722	3,322	3,577	4,114	1,854
Other conceptual adjustments	Exports	-6,813	-5,901	-83	-884	-1,316	-3,618	-2290	-1986
	Imports	3,948	1,983	747	320	474	442	466	-168
Merchanting (net export)	Exports	13,960	14,873	3,668	3,342	3,591	4,272	5,400	9,516

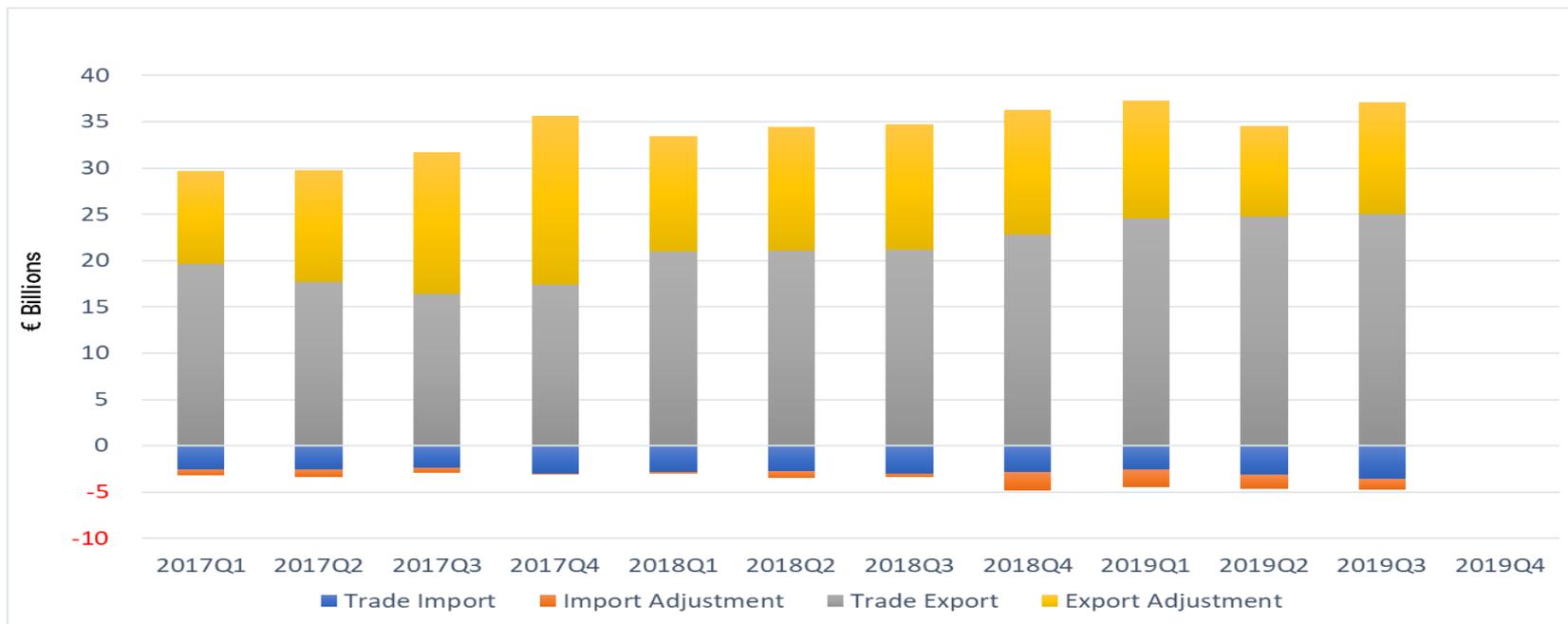
*Cross border trade*

*Change in economic ownership*

*Valuation etc.*

# How important is it?

## Analysis of Goods - Change of Economic Ownership



# Summary

- Identifying the change in economic ownership for Goods exports and imports is crucial.
- Cross border based exports and imports of goods is no substitute - conceptual models for GFP and FGP demonstrate this.
- Discussed methods of identifying inconsistencies using company data.



## G.7 Global Value Chains and Trade in Value-Added

- GN recommends **no conceptual changes** are required.
- Discusses **TiVA estimates, eSUTs, and GVC satellite account.**

### Decision:

- ✓ **Unanimously supported the proposals**, namely **including descriptions of GVCs and TiVA** in the **next set of manuals** and supporting the development of supplementary information for GVC analysis.
- ✓ Some members underscored that the supplementary information should **remain voluntary and not be embedded into official statistics**, considering countries' varying degrees of statistical capacity and scarce resources.
- ✓ A few members REQUESTED **International Organizations to commit to maintaining the statistical infrastructure to produce Inter-Country Input-Output tables (ICIOs)** to create indicators on GVCs or other indicators relevant for users and policy analyses

•

## G.6/C.4 “Merchandising and Factoryless Goods Producers and Recording of their Transactions”

- GN recommends treating **factoryless goods producers (FGP)** as **manufacturers**, regardless of any affiliation with the contractor responsible for transforming the goods.
  - Consistent with the task team on ISIC (2021) recommendation
- The **output of the contractor recorded as a good** when the contractor takes ownership of the material inputs (*where IPP and the management of the production process are provided by the principal—FGP type arrangement*), and **as a service** when the material inputs are owned by the principal (*—typical processing arrangement*).
- Balance of payments standard component of goods adjusted to cover the transactions related to goods traded as part of a global manufacturing arrangement as a distinct item.

### Decision:

- ✓ Agreed with proposed treatment of FGPs.



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# Economic Ownership of IPP Assets and Recognition of Marketing Assets



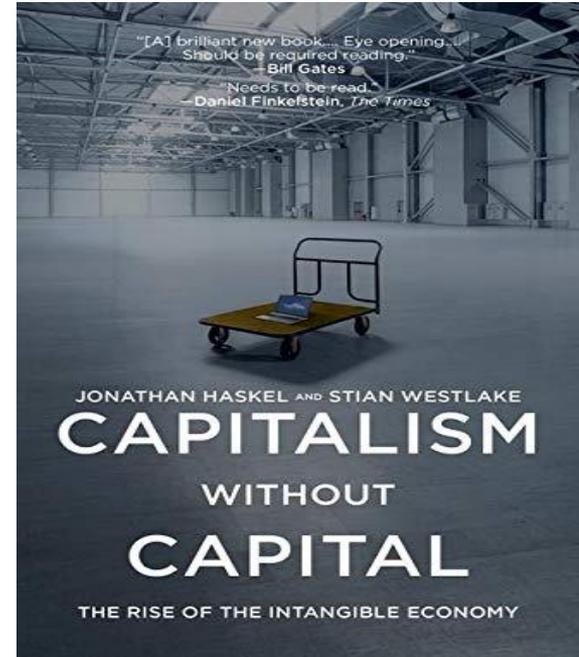
# Globalisation and Fragmentation of Production changed everything

- Recording ***changes in economic ownership*** of goods and capital assets in particular
- Both intangible and tangible highly mobile capital assets
- Fundamental question - Who owns what?
- Basis for economic statistical compilation



# Background

- Statistical challenge- identifying economic ownership of **previously produced** intellectual property products (IPPs) amongst units of a Multinational Enterprise (MNE).
- MNE can register the **previously produced** IPP in an economy that maximizes the overall post-tax MNE profits.
- Determining economic ownership of IPPs, and the recording of related transactions affects the recording of assets and related income flows.
- IPP asset can be leveraged as an input into the production of other (non-IPP) goods and services.
- IPP asset can earn revenue through royalties and license fees.
- Creation of IPP assets at one location of MNE group is often funded by affiliates elsewhere in the group.



# Questions to be answered

1. *Did a transaction occur between affiliates in the MNE Group to acquire a previously produced IPP asset?*
2. *Is the receiving entity an Institutional Unit in the economy?*
3. *Is the IPP directly engaged with production or is it located with the producer of the IPP?*
4. *Does the entity receive income related to the IPP or pay royalties for its use?*
  - *Either directly or through contract manufacturing arrangements*



# Consequences of Increases in Stock of IPP Assets

Increased  
Capital  
Assets

Increased  
Production  
of Goods  
and  
Services

Increased  
Exports

Increased  
Depreciation

Increased  
Profits



# Issues for Discussion

- Change in ownership from an economic point of view means that all risks, rewards, rights and responsibilities of ownership are transferred.
  - Not straightforward in the case of MNEs.
  - May assign legal ownership of the IPP asset to a special purpose entity (SPE).
- International tax rules are being modified to more align tax with economic ownership.
- All affiliates of an enterprise group are to some degree controlled by their parent.
- However, affiliates are economic owners of the (tangible) assets they hold but the issue is more complicated for intangible products.
- How can a change in economic ownership of previously produced IPP be determined?



# Options Considered

- **Option 1: The ultimate parent is deemed the economic owner of all IPP assets across the MNE group.** The argument is that in an MNE Group control is exerted centrally and consequently the risks are managed centrally and at the same time the returns are routed ultimately to the MNE headquarters (HQ).
- **Option 2: The producer of the IPP is deemed the economic owner of the IPP asset.** In many MNEs, dedicated R&D units (affiliates) produce the IPP.
- **Option 3: The unit that uses the IPP in productive activities is the economic owner.** This option assumes that the economic owner of the IPP is any unit that produces goods and services for which it, directly or indirectly, makes use of the IPP.



# Options Considered (cont'd)

- **Option 4: A more nuanced option based on the *Guide to Measuring Global Production (GMGP)* decision tree.**
  - Assigns economic ownership to a unit on the basis of whether the unit is
    - (i) a producer of the IPP
    - (ii) whether it receives explicit payment to produce the IPP or a payment to acquire the whole of the previously produced IPP (corresponding with a change in ownership) or
    - (iii) making use of the IPP (no change in ownership).
  - Changes in ownership mainly follow the type of monetary transaction observed
  - **Option 5: Intra-MNE transactions in cross-border previously produced IPP assets are viewed as a type of securitized asset and recorded in the financial account of the national accounts and balance of payments.**
    - Bundles an existing asset(s) into a tradable security, thus the capital assets are transformed into financial assets, or the assets and payment profiles of the assets are used to create additional financial assets.



# G.5 Economic Ownership and Recording of Intellectual Property Products (IPPs)

- GN considers **5 options** on how to determine economic ownership of IPPs; recommends assigning economic ownership depending on the scenarios under consideration
- GN proposes to adopt the **GMGP Decision Tree (option 4)** for the determination of the economic owner of IPP across an MNE Group
  - Does not propose a change in the conceptual standards of assigning economic ownership based on risks and rewards.
  - Decision Tree should be seen as a tool to assist compilers in how to interpret risks and rewards in the case of IPPs.
  - **Attributes economic ownership of IPPs to an SPE**, aligned with the GZTT GN G.4 “Treatment of SPEs and Residency” and as per the IMF’s “Operational Guidelines on SPEs”.

's comments then to be sent for final endorsement.



# Transfer Pricing and BEPS

Implementation of BEPS in the intervening period since the publication of the GMGP in 2015

- additional validation to the approach taken in constructing the decision tree.
- BEPS has resulted in a greater coincidence between generation of value added and the economic ownership of the IPP assets.



# Conclusions

- GZTT consultation revealed assigning economic ownership to a unit depends on the scenarios under consideration and that a one-size-fits-all approach should not be taken.
- GZTT consultation supported the adoption of the GMGP Decision Tree for the determination of the economic owner of IPP across an MNE Group.
- Proposal to adopt the GMGP Decision Tree does not propose a change in the conceptual standards of assigning economic ownership based on risks and rewards.
- Decision Tree should be seen as a tool to assist compilers in how to interpret risks and rewards in the case of IPPs.
- Some GZTT members expressed reservations about attributing economic ownership of IPPs to an SPE.
- Worth emphasizing that a stricter implementation of economic ownership in the accounts is not necessarily a panacea to perceptions of distortions to the accounts!



# Background – Marketing Assets

- Both the 2008 SNA and the BPM6 classify marketing assets as nonproduced non-financial assets.
  - ✓ *Assets that come into existence in ways other than through processes of production.*
- Classified into three categories:
  - (i) Natural resources, (ii) Contracts, leases, and licenses, and (iii) Goodwill and marketing assets.
- While the basis for classifying natural resources and contracts leases, and licenses as nonproduced assets is clear, the basis for classifying marketing assets is not.

*2008 SNA acknowledges that the major reason for not treating marketing assets as fixed assets is due to the difficulty of measuring their value.*

Conceptual issues:

- ✓ whether marketing assets should be maintained as being nonproduced non-financial assets
- ✓ whether marketing assets could be re-examined as produced non-financial assets



# Outcomes: Options Considered

- **OPTION I: Marketing Assets are treated as Produced Non-Financial Assets**
- The existing definition of intellectual property products would then be expanded with a new sub-category for marketing assets.
- *Payments for the use of a marketing asset (franchise fee):* would be recorded as output in the form of the sale of a service.
- Outright acquisition/sale of a marketing asset: recorded in the goods and services account



# Outcomes: Options Considered

- **OPTION II: Maintain treatment of Marketing Assets as Nonproduced Non-Financial Assets**
- *Consistent guidance between BPM6 and 2008 SNA would be required*
- Payments for the use of a marketing asset (franchise fee): Existing *BPM6* guidance could be taken as a starting point
- *„...it would be desirable to separate the income and service elements. However, it may not generally be feasible to do so in practice; in which case, a convention is adopted that the entire values are to be classified as charges for the use of intellectual property.”*
- How should the property income be recorded?
- *BPM6* and 2008 SNA offer no options for recording the property income from non-produced assets, other than rent
- *However: rent is the return on natural resources*



# Recommended Approach

- If marketing assets are nonproduced
- ✓ **No consensus on how to best record transactions if marketing assets continue to be recorded as nonproduced.**
- Possible options (i) by splitting them between services and income (the flexible option in BPM6, if information is available) (ii) in services (the default solution in BPM6, if a split is not possible) (iii) in income
- ✓ A specific subcategory to goodwill and marketing assets be introduced on the NA balance sheet
- GZTT unanimously supported global consultation to test the practical aspects of the proposed options



# Recommended Approach

- If marketing assets are produced:
- May entail new IPP sub-category on marketing assets
- ✓ Present specific methodological guidance for the recording of fees for the use of marketing assets as service payments and BPM6 updated to reflect that marketing assets are produced assets.
- ✓ Acquisitions or sales of marketing assets included in the capital account in the national accounts and the goods and services account in the balance of payments



## G.9 “Payments for ‘Knowledge-based Capital’”

- GN discusses two major conceptual options
- Option I: **Marketing assets** are treated as **produced non-financial assets**
- Option II: **Marketing assets** are maintained as being non-produced non-financial assets but with consistent and enhanced reporting in both manuals
  - How to record payments for the use of a marketing asset (franchise fee)? Under Services, Income, or both?
  - How should property income be recorded?
- **Decision:**
  - ✓ Supportive to the GZTT’s proposal of undertaking a **targeted testing** before deciding on the final recommendation.
  - ✓ Members remained favorable to the **preferred treatment of marketing assets as produced** on conceptual grounds.
  - ✓ If status quo (continue treating these assets as nonproduced) be maintained, clearer guidance on the treatment of **payments for the rights to use** marketing assets.
    - ✓ Slight preference to **treat those payments as services** (the default solution in *BPM6*, if a split is not possible). **Large support** for creating a **new subcategory** on the payment for nonproduced nonfinancial assets other than natural resources in the primary income account.
    - ✓ **Concept of rent**, and the need to distinguish between rent and services, has been discussed by other task teams during the update process.
    - ✓ **Eurostat is preparing a more general guidance note on rent.**
- **GN will be finalized once testing ends. To be completed by December 2022.**



# Workshop and Follow-up Testing etc

1. Workshop was to determine a practical method to measure marketing assets as produced assets in the international statistical standards, and included discussions on
  - (i) available data sources;
  - (ii) the adequate methodology to calculate the current production and gross fixed capital formation and appropriate valuation
  - (iii); the development of depreciation rates, retirement patterns, and service lives to calculate capital stock and consumption of fixed capital; and
  - (iv) the appropriate deflator.
2. A two-stage testing strategy for guidance on measurement of the assets:
  - Stage 1: a dedicated group of economies and international organizations to review existing literature on the topic and assess if the methodology can be replicated, using the current workshop to facilitate the discussion.
  - Stage 2: launch of a global consultation in September 2022, using responses from economies to make recommendations to AEG/BOPCOM on feasibility by end-December 2022.





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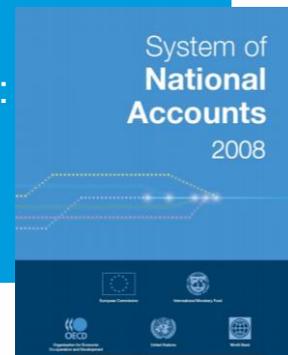
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# Valuation of Exports and Imports - CIF/FOB

# Valuation of imports and exports: introduction

## *System of National Accounts 2008 (2008 SNA)*

- recommends recording of imports and exports of goods at FOB value;
- the FOB valuation seems to not be fully reconciled with the general conceptual principle of recording output at basic prices:
  - **FOB valuation principle:** goods are valued excluding freight and insurance services between the exporting and importing countries (i.e., at a point of uniform valuation).
  - **basic price valuation principle:** goods are valued at the observed transaction price receivable by the producer (freight and insurance services are included or excluded depending on if these services are separately invoiced by the producer).
- imports of goods are to be recorded in the supply and use tables at basic prices:
  - **CIF to FOB adjustment** is needed, if FOB-type data detailed by product group are not available for imports.



# Valuation of imports and exports: recommended approach – conceptual aspects

## *Impact of adopting transaction values*

- **National Accounts:**
  - in general consistent with the principles concerning the time of recording and valuation of production recommended in the 2008 SNA.
  - need of additional guidance for SUT compilation.
- **Balance of Payments:**
  - demarcation between goods and services
  - introduction of a changeable valuation point
  - change in treatment of international freight and insurance services

# Historical background

- International Trade (ITGS) data as a source already existed – INCO Terms 1920s
- Change in economic ownership coincided largely with movement across National Frontiers
- Used available data to compile Exports and Imports of Goods that predated System of National Accounts although Balance of Payments already existed



# Incoterms<sup>®</sup> 2020

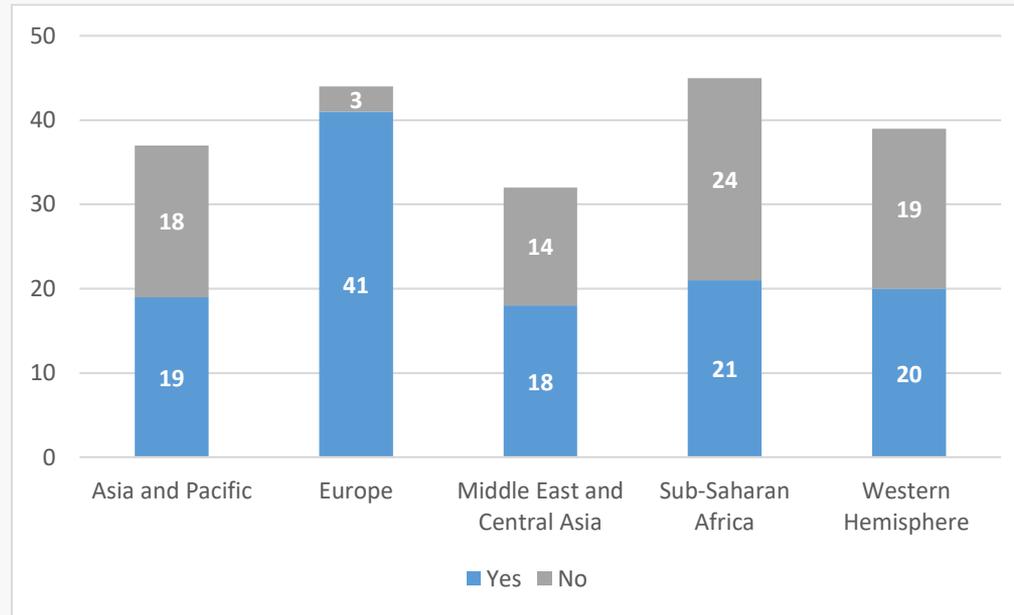
## Incoterms<sup>®</sup> 2020 Rules Responsibility Quick Reference Guide



Freight Collect Terms Freight Prepaid Terms

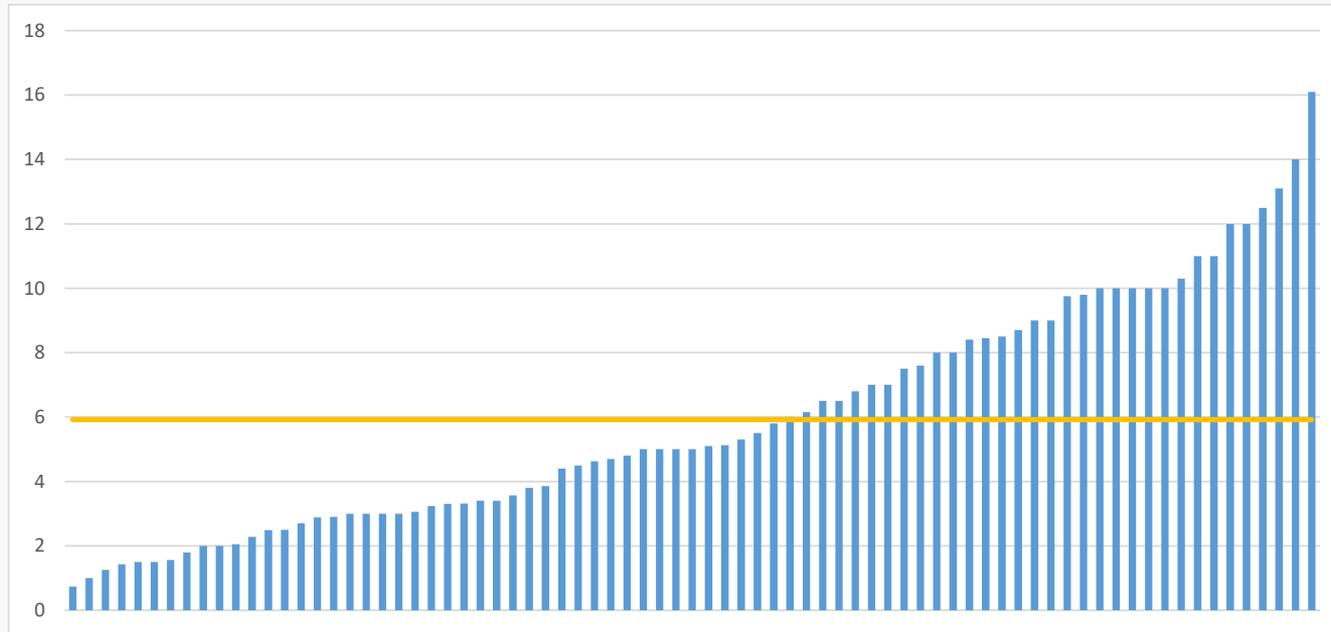
Groups	Any Mode or Modes of Transport		Sea and Inland Waterway Transport				Any Mode of Transport	
<b>Incoterm<sup>®</sup></b>	<b>EXW</b>	<b>FCA</b>	<b>FAS</b>	<b>FOB</b>	<b>CFR</b>	<b>CIF</b>	<b>CPT</b>	<b>CIP</b>
	Ex Works (Place)	Free Carrier (Place)	Free Alongside Ship (Port)	Free On Board (Port)	Cost and Freight (Port)	Cost Insurance & Freight (Port)	Carriage Paid To (Place)	Carriage & Insurance Paid to (Place)
<b>Transfer of Risk</b>	At Buyer's Disposal	On Buyer's Transport	Alongside Ship	On Board Vessel	On Board Vessel	On Board Vessel	At Carrier	At Carrier

# Complete answers: number of economies, by region



- Results by May 26, 2021
- 119 economies submitted complete answers
- 12 economies to be contacted to clarify details on answers received  
*(some results may change with the outcome of these contacts)*

# Size of the FOB valuation adjustment



- Economies reported very diverse estimates of the CIF to FOB adjustment of Imports, ranging from 0 to 16% (excluding outliers)
  - Blue columns in the graph represent the estimates reported
- The average of the estimated adjustment reported 6%
  - Orange line in the graph represent the average of the estimates

# Feedback from BOPCOM and AEG

- **Support the use of invoice values on a conceptual level for inclusion in BPM7 and SNA 2025**
- **Further experimentation and testing is required by countries**
- **As wide a range as possible of countries need to participate in the testing**
- **Need to identify the challenges for all countries in adopting the Invoice value for Exports and Imports of goods**

## More exhaustive testing....

- Disappointing response from 43 candidate countries
- Half of responses addressed valuation of exports only
- Compilation of the results gave no basis for firm conclusions

# Way forward

- Data on invoice value needs to be assessed
- Include invoice value in the data collected from ITGS compilers
- Enable a Quality Assurance framework to assess the Invoice value over a number of periods
- Conceptual arguments have been accepted - now it is about the practical issues

# Summary: G.1 Valuation of Imports and Exports (CIF-FOB Adjustment)

- Guidance note (GN) on the adoption of transaction (invoice value) for the valuation of imports and exports
  - Further consultation and testing to understand the practical feasibility of the preference for recording of exports and imports of goods at their observed transaction value.
- Launched on March 12, 2021, simultaneously on UNSD and the IMF's *BPM6* Update webpage. Responses for stage 1 due April 12, 2021.
- Stage 1 closed April 2021
- Stage 2 closed beginning of September 2021
- Discussed at the joint AEG-BOPCOM session October 26 – November 1, 2021.

## Decisions:

- ✓ **Option 3**—valuing exports and imports of goods at **invoice values**—is **conceptually sound**, but in light of the practical difficulties the **status quo (Option 2) is being recommended as part of the current BPM and SNA update**.
- ✓ **Option 3 will be the standard in the next round of BPM and SNA updates**, with an understanding that economies should start preparing for a transition to the use of invoice values as of the next update of the manuals
- ✓ **Collection of invoice data will be explored through the International Merchandise Trade Statistics (IMTS)** and experimentation by economies should ensure the quality of the data.

**Final version of the GN is ready to be circulated to the AEG and Committee for endorsement.**

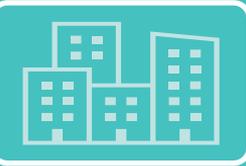


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# SUMMARY





## Corporate Structures

- MNEs
- SPEs



## Trading Arrangements

- GVCs , TiVa, eSUTs
- FGPs and Contract Manufacturers



## Specific Transactions

- Intellectual Property Products
- Marketing Assets



## Exports and Imports

- Valuation

# Globalization Task Team (GZTT)

- Intersecretariat Working Group on National Accounts (ISWGNA) Globalization Task Team set up to develop guidance notes on MNEs and SPEs leading to the update of *2008 SNA* and *BPM6* in 2025,
  - In consultation with the Advisory Expert Group (AEG) on National Accounts and related task teams created under the aegis of IMF Balance of Payments Committee (BOPCOM).

Building on much work and discussion that has occurred post *2008 SNA* and *BPM6*, these options were put forward:

(I) Emphasize existing macroeconomic indicators

(II) Develop granular or supplemental data

(III) Come up with alternative presentations or extensions

(IV) Change standards





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Questions ?

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# Questions

- MNE control
- Spe
- Greater detail on MNEs
- Types of IPP transactions
- Difference between FGP and Goods for Processing

