

Linking SPPI with NA – French contribution

28th Voorburg Group

Tokyo, Japan

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Structure of the presentation

- A) Why the integration of macroeconomic indicators in National Accounts framework is desirable
- B) Generalities on National Accounts framework
- C) What National Accounts expect from turnover/output data
- D) What National Accounts should expect from SPPI
- E) International Trade in Services as the new frontier of the Voorburg Group?

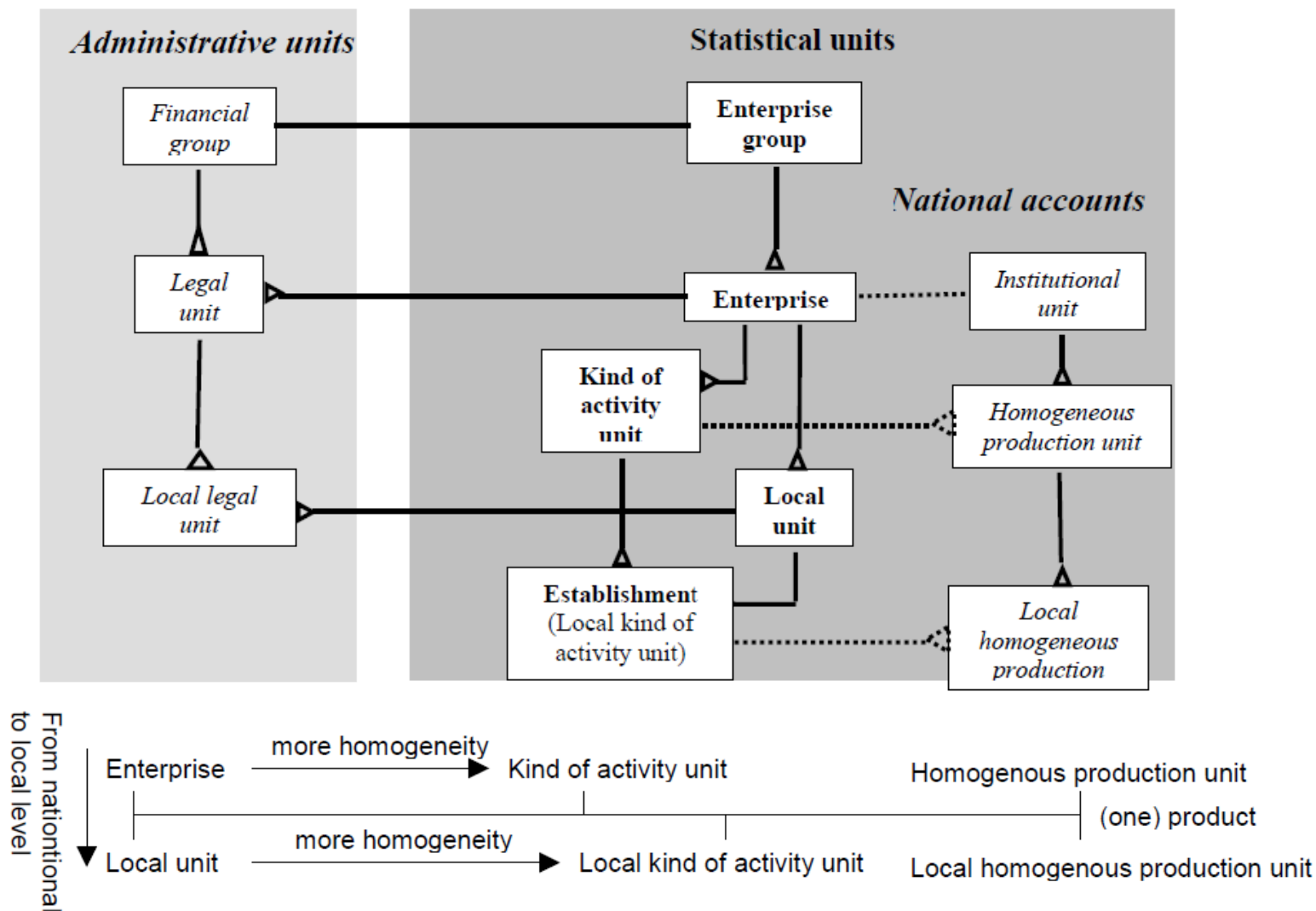
A) Why integration in NA framework is desirable

- $I_{value} = I_{volume} * I_{price}$

Value, volume and price indices are only relevant together;

- a consistency limited to short term indicators is impossible (differences in operations and in statistical units);
- only NA provide the global framework where each indicator can find its place;
- UNSD advocates integration of macroeconomic indicators, *i.e.* the possibility for some of them like IIP to be simply deduced from others, in order to be more relevant;
- the peculiarities of each “national” system of National Accounts are not to be neglected.

A) To understand the different kinds of statistical units...

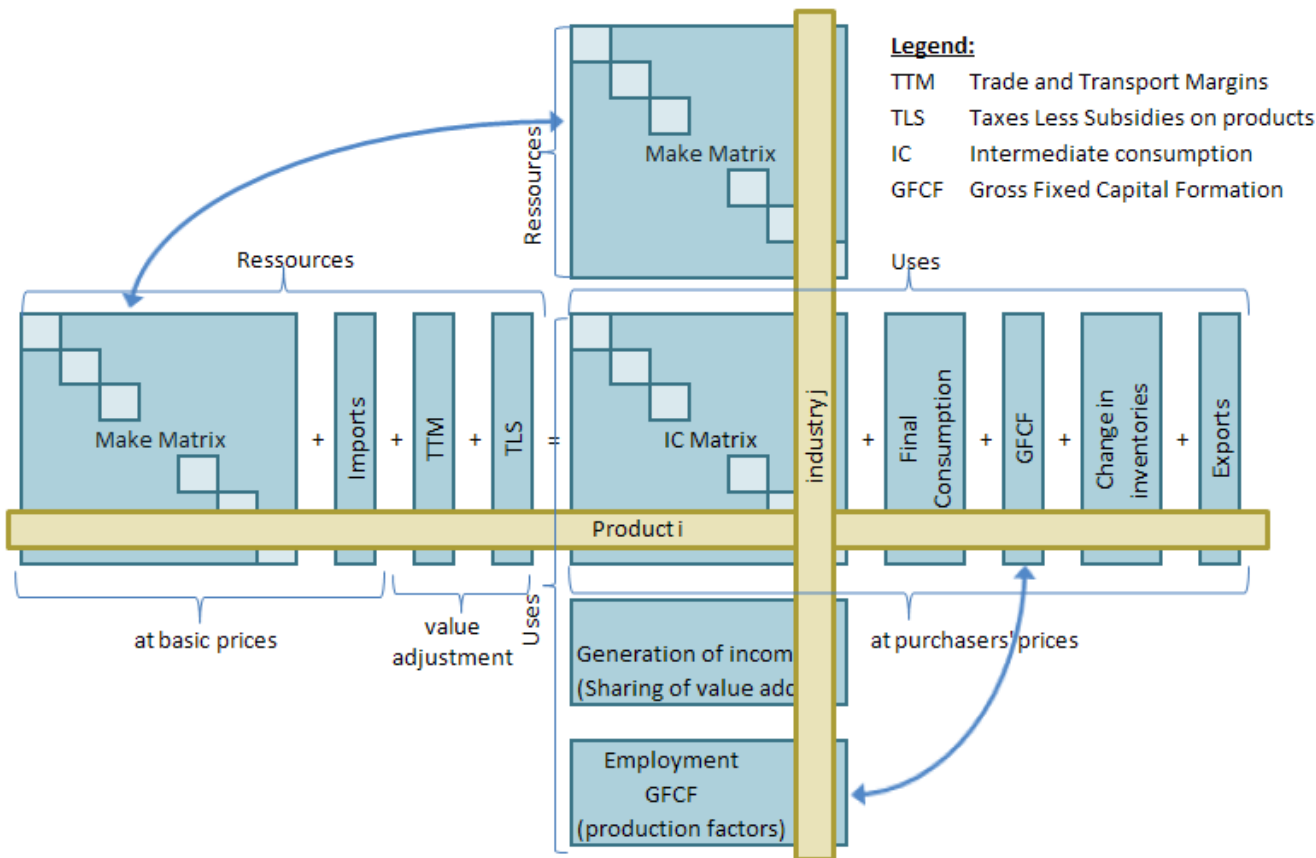


B) Interest for volume, preference for deflation

- Price indices are less interesting *per se* than by the way to obtain good volume indices, more economically significant than value indices;
- SNA 2008 has a preference for deflation:
 - *“15.103 – [...] In most cases it is preferable and more practicable to use price indices to deflate current value data. [...]”*
- The production approach relies on the observation of “technical coefficients” in volume

	value 2008	ivol	volume 2009	lprice	value 2009
industrial gases (through mains)	100	75?	75 or 100?	100?	100

B) The SUT and IOT framework



Products in rows.

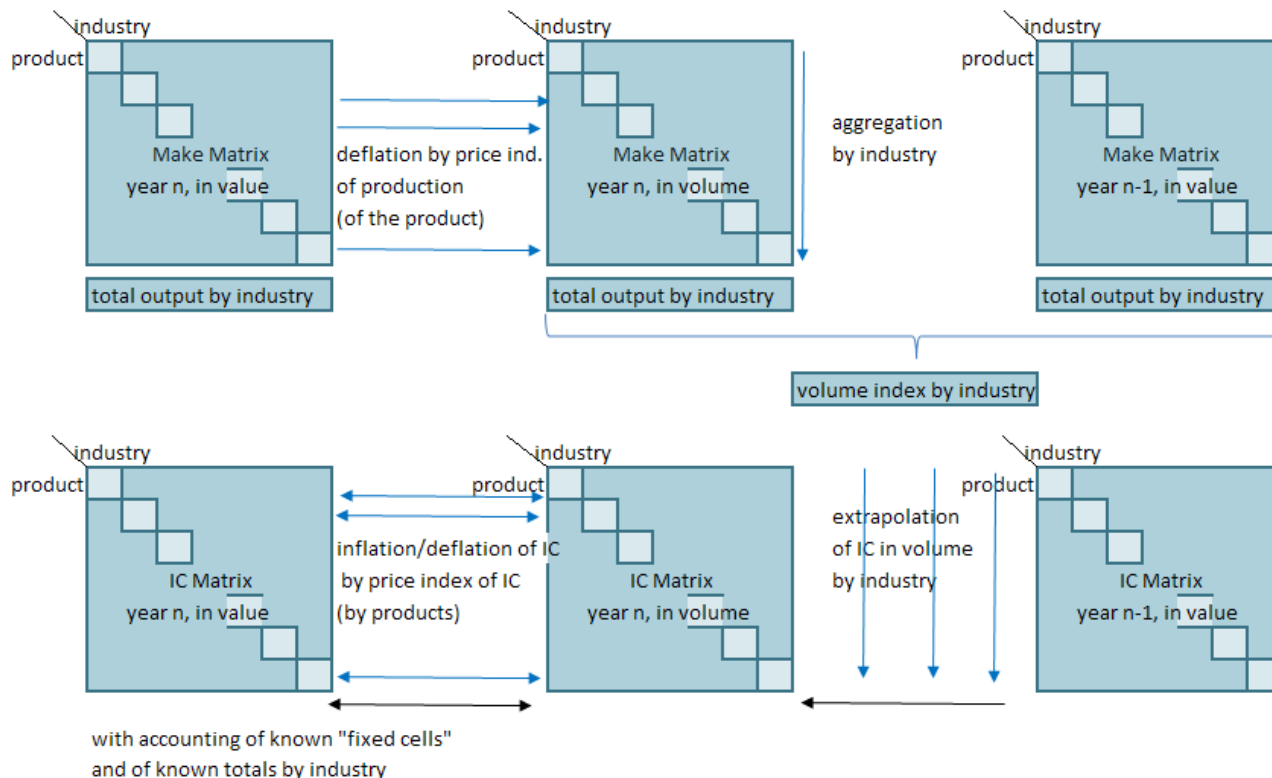
“Industries” or homogenous branches in columns.

Expenditures approach

Production approach

Income approach

B) Value Added by double deflation



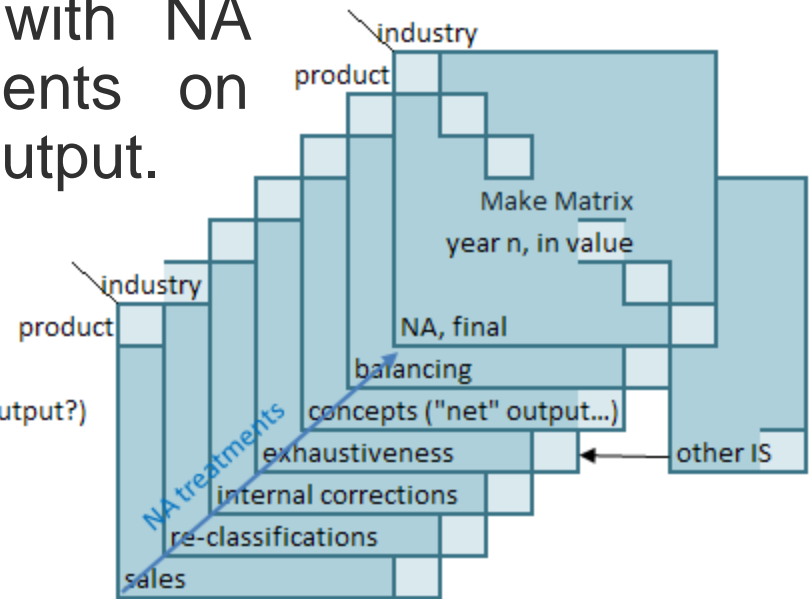
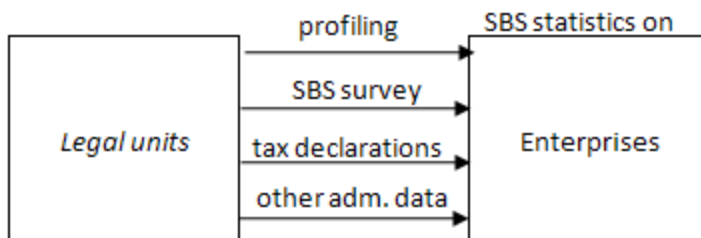
The extrapolation of IC in volume by industry is the “production approach”.

The deflation of (total) IC by industry comes from the “income approach”, reconciled with the production approach.

C) Turnover/output and the Make Matrix

SBS should provide a good coverage of “sales” for institutional sectors “enterprises”, maybe for all economy.

They should be consistent with NA classifications, provide elements on passage from turnover to net output.



- on sales (output?)
- on IC (totals by enterprise + detail by "industries" and by products?)
- on VA (totals by enterprise + detail by "industries"?)
- on compensation of employees (totals by enterprise + detail by "industries"?)
- on taxes and subsidies (totals by enterprise + detail by "industries" ?)
- on GFCF (totals by enterprise + detail by "industries" and by products?)
- on employment (totals by enterprise + detail by "industries" ?)

C) Turnover/output and detail by markets

USES					
Intermediate Inputs Deductible	Soft data		Deflation Val n / I. Price	← SPPI BtoB adj. VAT rates	Soft data
Intermediate Inputs non deductible					
Intermediate consumption	Subtotal				
Content of IC in domestic output at basic prices	Residual		Residual		Residual
Content of IC in imports of goods at cif prices	Proposal		Deflation	← MPI?	Proposal
Content of IC in imports of services	Proposal?		Deflation	?	Proposal?
Content of IC in transport and trade margins	split of res.		Extrapolation		split of res.
Content of IC in taxes on imports	prop to imports		Extrapolation		prop to imports
Content of IC in other taxes - subsidies on products	split of res.		Extrapolation		split of res.
Content of IC in VAT	x rates n-1		x rates n-1		x rates n
Final consumption expenditure by households					
Individual consumption expenditure by general	Good estimates		Deflation Val n / I. Price	← CPI (~ SPPI BtoC)	Good estimates
Collective consumption expenditure by general					
Final consumption expenditure by NPISH					
Final consumption expenditure	Subtotal				
Content of final consumption in ...	xxx		xxx		xxx
Gross fixed capital formation by non-financial enterprises			Deflation	← SPPI BtoB?	
Gross fixed capital formation by financial enterprises	Soft data		Val n / I. Price	?	Soft data
Gross fixed capital formation	Subtotal				
Content of GFCF in...	xxx		xxx		xxx
Changes in inventories at producers				← ?	
Changes in inventories at traders	Soft Data			?	Soft Data
Changes in inventories at users				?	
Changes in inventories	Subtotal				
Content of changes in inventories in...	xxx		xxx		xxx
Exports of goods FOB from members of the euro area	Hard data			← XPI	Hard data
Exports of goods FOB from non-members of the euro area				XPI	
Extra EU Exports of goods FOB				XPI	
Exports of goods FOB	Subtotal				
Content of exports of goods in...	xxx		xxx		xxx
Exports of services from members of the euro area	Hard data			← SPPI BtoE	Hard data
Exports of services from non-members of the euro area				SPPI BtoE	
Extra EU exports of services				SPPI BtoE	
Exports of services	Subtotal				
Content of exports of services in...	xxx		xxx		xxx
Total use at purchasers' prices	Total				

For services especially, it should be possible to derive turnover/output data to know the "uses" by the "markets".

(IC + GFCF

~ BtoB

FC ~ BtoC

Exports ~ BtoE)

C) For exports particularly

The linking between “output sold on foreign markets” (or “to non-resident customers”) of an enterprise (KAU, LKAU, homogenous branch...) and Balance of Payments by fine product (EBOPS 2010) should be a priority in short term, for the consistency and relevance of National Accounts.

Trade package – key points of relevance for NA

■ International trade in services

- Short term - **micro data linking** with Business register, trade in services by enterprise characteristics
- Long term - international trade in services as **primary statistics** on the basis of **CPA**

BSDG



C) Other elements of production and generation of income accounts

The same Structural business Surveys that provide data on turnover/output by kind of activity and by product (and if possible by market) should also deliver information on Intermediate Consumption, Value Added, compensation of employees, taxes and subsidies, Gross Fixed Capital Formation, change in inventories, employment... accordingly by kind of activity.

That can be performed by combination with administrative data.

D) A guidance for price indices

- Instructions about “price discrimination”:

■ *“15.74 - When there is price variation for the same quality of good or service, the price relatives used for index number calculation should be defined as the ratio of the weighted average price of that good or service in the two periods, the weights being the relative quantities sold at each price. [...]. This must be recorded as a price and not a volume increase”*

- Quite vague on what is a unit of measure:

■ *“15.11 - [...] The price of a good or service is defined as the value of one unit of that good or service. [...]”*

- But we can assume that this unit is linked with the utility of the consumer (household or enterprise), and the Eurostat’s handbook on price and volume measures in NA is more straightforward.

D) Price indicators for all services?

Replace “CPI” by “SPPI BtoB” for some products:

(philosophy of the current European STS regulation on SPPI)

	Val n-1	I. vol	Vol n	I. Price	Val n
SUPPLIES					
Output at basic prices by product	Hard data			← CPI	Hard data
Imports of goods CIF from members of the euro area			Deflation	← adj. VAT rates	
Imports of goods CIF from non-members of the euro area	Hard data		Val n / I. Price	← CPI	Hard data
Extra EU imports of goods CIF				← adj. VAT rates	
Imports of goods CIF	Subtotal				
Imports of services from members of the euro area			Deflation	← CPI	
Imports of services from non-members of the euro area	Hard data		Val n / I. Price?	← CPI	Hard data
Extra EU imports of services				← adj. VAT rates	
Imports of services	Subtotal				
Trade and transport margins			from uses side		
taxes on imports	Good estimates				Good estimates
other taxes - subsidies on products					
VAT	uses x rates n-1		uses x rates n-1		uses x rates n
Total supply at purchasers' prices	Total				
USES					
Intermediate Inputs Deductible	Soft data		Deflation	← adj. VAT rates	Soft data
Intermediate Inputs non deductible			Val n / I. Price	← CPI	
Intermediate consumption	Subtotal				
Content of IC in domestic output at basic prices	Residual		Residual		Residual
Content of IC in imports of goods at cif prices	Proposal		Deflation	← CPI	Proposal
Content of IC in imports of services	Proposal?		Deflation	← adj. VAT rates	Proposal?
Content of IC in transport and trade margins	split of res.		Extrapolation		split of res.
Content of IC in taxes on imports	prop to imports		Extrapolation		prop to imports
Content of IC in other taxes - subsidies on products	split of res.		Extrapolation		split of res.
Content of IC in VAT	x rates n-1		x rates n-1		x rates n
Final consumption expenditure by households					
Individual consumption expenditure by general					
Collective consumption expenditure by general	Good estimates		Deflation	← CPI	Good estimates
Final consumption expenditure by NPISH			Val n / I. Price		
Final consumption expenditure	Subtotal				
Content of final consumption in ...	xxx		xxx		xxx
Gross fixed capital formation by non-financial enterprises			Deflation	← adj. VAT rates	
Gross fixed capital formation by financial enterprises	Soft data		Val n / I. Price	← CPI	Soft data
Gross fixed capital formation	Subtotal				
Content of GFCF in...	xxx		xxx		xxx
Changes in inventories at producers					
Changes in inventories at traders	Soft Data			← adj. VAT rates	Soft Data
Changes in inventories at users				← CPI	
Changes in inventories	Subtotal				
Content of changes in inventories in...	xxx		xxx		xxx
Exports of goods FOB from members of the euro area				← CPI	
Exports of goods FOB from non-members of the euro	Hard data			← adj. VAT rates	Hard data
Extra EU Exports of goods FOB				← CPI	
Exports of goods FOB	Subtotal				
Content of exports of goods in...	xxx		xxx		xxx
Exports of services from members of the euro area				← CPI	
Exports of services from non-members of the euro area	Hard data			← adj. VAT rates	Hard data
Extra EU exports of services				← CPI	
Exports of services	Subtotal				
Content of exports of services in...	xxx		xxx		xxx
Total use at purchasers' prices	Total				

D) Or all kinds of price indicators for all services, like for goods?

“SPPI BtoAll” obtained by combination of “SPPI BtoB” and “SPPI BtoC” (~ CPI adjusted on VAT rates)...

Or “SPPI BtoB”, “SPPI BtoC” and “SPPI BtoE” on their own, price of output by balancing?

	Val n-1	I. vol	Vol n	I. Price	Val n	
SUPPLIES						
Output at basic prices by product	Hard data			← SPPI BtoAll		Hard data
Imports of goods CIF from members of the euro area			Deflation	← MPI		MPI for books, paintings... ?
Imports of goods CIF from non-members of the euro area	Hard data		Val n / I. Price	← MPI		
Extra EU imports of goods CIF				← MPI		
Imports of goods CIF						
Subtotal						
Imports of services from members of the euro area			Deflation	← MPI?		"true" MPI of services are not requested
Imports of services from non-members of the euro area	Hard data		Val n / I. Price?	← ?		
Extra EU imports of services				← ?		
Imports of services						
Subtotal						
Trade and transport margins						Good estimates
taxes on imports	Good estimates		from uses side			
other taxes - subsidies on products						
VAT	uses x rates n-1		uses x rates n-1		uses x rates n	
Total supply at purchasers' prices						
Total						
USES						
Intermediate Inputs Deductible			Deflation	← SPPI BtoB		Soft data
Intermediate Inputs non deductible	Soft data		Val n / I. Price	← adj. VAT rates		
Intermediate consumption						
Subtotal						
Content of IC in domestic output at basic prices	Residual		Residual			Residual
Content of IC in imports of goods at cif prices	Proposal		Deflation	← MPI?		Proposal
Content of IC in imports of services	Proposal?		Deflation	← ?		Proposal?
Content of IC in transport and trade margins	split of res.		Extrapolation			split of res.
Content of IC in taxes on imports	prop to imports		Extrapolation			prop to imports
Content of IC in other taxes - subsidies on products	split of res.		Extrapolation			split of res.
Content of IC in VAT	x rates n-1		x rates n-1			x rates n
Final consumption expenditure by households						Good estimates
Individual consumption expenditure by general	Good estimates		Deflation	← CPI		
Collective consumption expenditure by general			Val n / I. Price	← SPPI BtoC		
Final consumption expenditure by NPISH						
Final consumption expenditure						
Subtotal						
Content of final consumption in ...	xxx		xxx			xxx
Gross fixed capital formation by non-financial enterprises			Deflation	← SPPI BtoB?		Soft data
Gross fixed capital formation by financial enterprises	Soft data		Val n / I. Price	← ?		
Gross fixed capital formation						
Subtotal						
Content of GFCF in...	xxx		xxx			xxx
Changes in inventories at producers				← ?		Soft Data
Changes in inventories at traders	Soft Data			← ?		
Changes in inventories at users				← ?		
Changes in inventories						
Subtotal						
Content of changes in inventories in...	xxx		xxx			xxx
Exports of goods FOB from members of the euro area				← XPI		XPI for books, paintings... ?
Exports of goods FOB from non-members of the euro area	Hard data			← XPI		
Extra EU Exports of goods FOB				← XPI		
Exports of goods FOB						
Subtotal						
Content of exports of goods in...	xxx		xxx			xxx
Exports of services from members of the euro area				← SPPI BtoE		Hard data
Exports of services from non-members of the euro area	Hard data			← SPPI BtoE		
Extra EU exports of services				← SPPI BtoE		
Exports of services						
Subtotal						
Content of exports of services in...	xxx		xxx			xxx
Total use at purchasers' prices						
Total						

D) Some questions to discuss within us

- Are SPPI limited to “business” scope = “enterprises” institutional sectors (S11 + S12 + S14A)?
- Do we have to interpret “BtoB” as “sold to domestic moral bodies” or as “IC + GFCF”, etc. ?
- Do we align the scope of “SPPI BtoE” on the concept of export of services in NA?
- Will ISP be limited to “business” scope?
- Will ISP always be obtained by deflation?
- How to produce a monthly ISP from quarterly SPPI?
- Are volume indicators still useful for NA when they are obtained by deflation? Or for whom?

E) GATS and the diverse modes of ITS

Mode	Supplier presence	Criteria	Treatment in NA / BoP
Mode 1: Cross-border supply	Service supplier not present within the territory of the consumer	Service delivered within the territory of the consumer, from the territory of another country (of the supplier)	imports / exports
Mode 2: Consumption abroad		Service delivered outside the territory of the consumer, in the territory of another country (of the supplier)	Households: FC / tourism Others: imports / exports
Mode 3: Commercial presence	Service supplier present within the territory of the consumer	Service delivered within the territory of the consumer, through the commercial presence of the supplier	FATS revenue of property
Mode 4: Presence of a natural person		Service delivered within the territory of the consumer, with supplier present as a natural person	imports / exports

Except mode 3 (FATS) and mode 2 for a part (tourism), ITS should be recorded and deflated in NA.

E) The Voorburg Group is expected on this topic

- SNA 2008 was quoting “new initiatives”:
 - *“15.160 - Exports and imports consist of both goods and services. For both exports and imports, goods and services are expressed in volume terms using quite different deflators because of the very different sources available for goods and services. New initiatives are under way to improve price indices for external trade in services that should lead to improved data in this area”*
- XMPI manual by IMF was waiting for a contribution of the Voorburg Group:
 - *“The current XMPI manual also incorporates approaches to the measurement of prices of services exports and imports. [and, as such, has benefited from review by the International Working Group on Service Sector Statistics (the Voorburg Group). To be done.]”*

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Thank you for your attention

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