



**HUNGARIAN
CENTRAL
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OFFICE** 

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Cross Cutting Topics – Part 1 SPPIs by customer sector

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- I. Introduction;**
- II. SPPIs in Hungary;**
- III. Aggregation;**
- IV. Frequency;**
- V. Temporal disaggregation;**
- VI. B2E trade;**
- VII. Summary.**



I. Introduction

Current European legislation

STS Regulation (1158/2005/EK)

Variable: 310 Output prices for services (SPPIs)

show the price development for services delivered to customers that are enterprises or persons representing enterprises. (B2B, business to business)

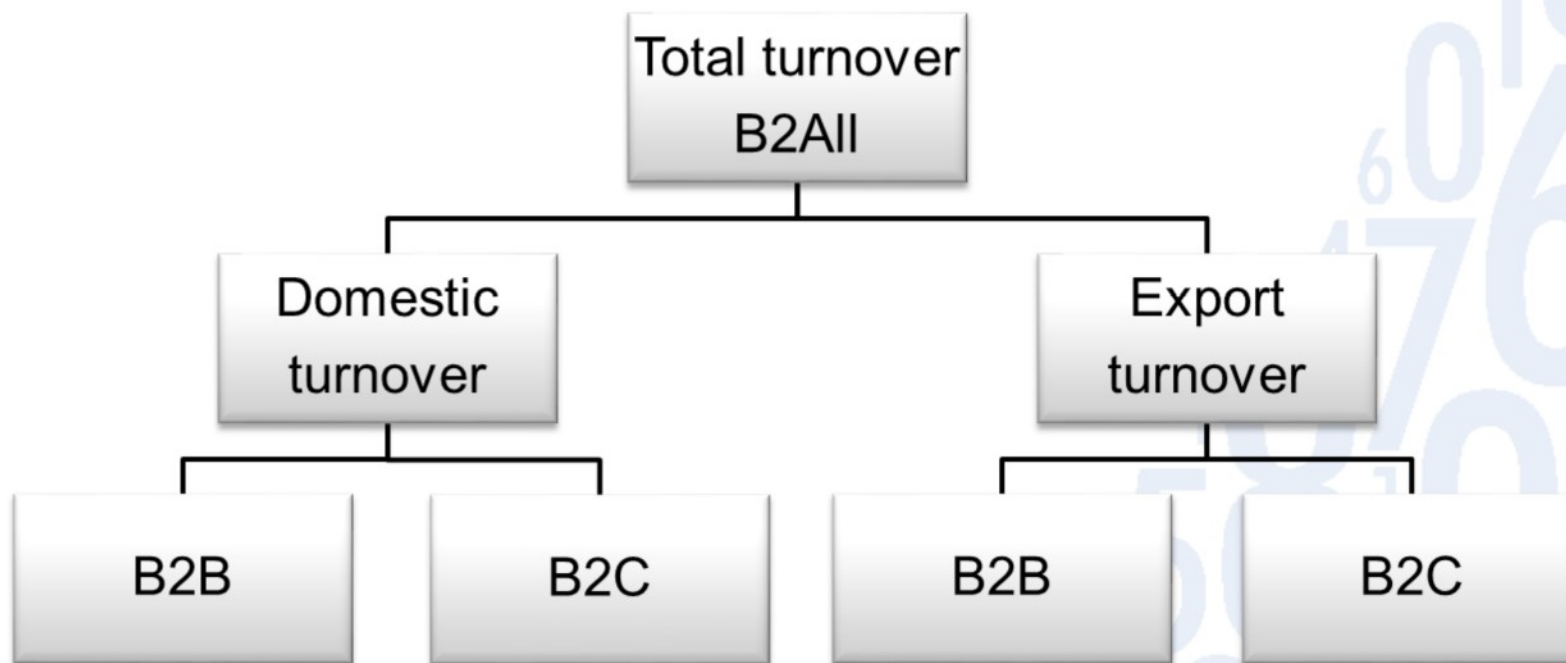
Domestic and non-domestic services are monitored (according to the destination of the product).

Planned new legislation in European Union

Framework Regulation for the Integration of Business Statistics (FRIBS/STS-package) requires:

SPPIs as deflators for the total Turnover/Output (B2All, business to all)

Turnover share on type of consumer of the services



Observation unit: enterprise

- ✓ SPPIs are available for the current STS-coverage;
- ✓ Experimental SPPIs required by FRIBS are under development.

Coverage by the type of the customer

B2All, B2B, B2C, B2E - product-based

The type of the Hungarian SPPI

- ✓ **B2All** - computed as **weighted average of B2B and B2C**;
(in Hungary B2Other SPPIs (B2E, public bodies...) are included in B2B SPPIs);
- ✓ **B2B and B2E** - based on data of a **quarterly SPPI survey**;
- ✓ **B2C** - estimated by consumer prices (HICP-CT).

Which areas are affected by FRIBS?

Related industries (NACE Rev. 2)

- ✓ **H** - Transportation and storage;
- ✓ **I** - Accommodation and food service activities;
- ✓ **J** - Information and communication;
- ✓ **L** - Real estate activities;
- ✓ **M** - Professional, scientific and technical activities;
- ✓ **N** - Administrative and support service activities;

Note:

Above mentioned industries currently are not fully covered by SPPIs.

III. Aggregation

Examples: The estimated turnover share for B2B and B2C

Hungary, Total Turnover=100%

CPA'2015	Name	Estimated Turnover share (%)	
		SPPI	HICP-CT
49	<i>Land transport services and transport services via pipelines</i>	80	20
51	<i>Passenger air transport</i>	20	80
55	<i>Accommodation services</i>	30	70
53	<i>Postal activities</i>	80	20
61	<i>Telecommunication</i>	45	55
68	<i>Real estate activities</i>	55	45
74	<i>Other professional, scientific and technical services</i>	95	5
77	<i>Rental and leasing services</i>	95	5
79	<i>Travel agency, tour operator and other reservation services and related services</i>	30	70

III. Weighting together B2B SPPIs and HICP-CT - a simplified (fictive) example

NACE (Rev. 2)/ CPA 2015	Division/Class	B2All %	B2B %	B2C %
61	Telecommunication activities	100.0	49.5	50.5
61.10	Wired telecommunication activities	30.0	40.0	60.0
61.20	Wireless telecommunication activities	55.0	50.0	50.0
61.30	Satellite telecommunication activities	5.0	0.0	100.0
6190	Other telecommunication activities	10.0	100.0	0.0

Calculation/estimation of the B2B:

A split of the industry into 49.5% B2B transactions and 50.5% B2C transactions results: $B2B = 0,3 * 40 + 0,55 * 50 + 0,05 * 0 + 0,1 * 100$

IV. Frequency and differences between SPPI and HICP

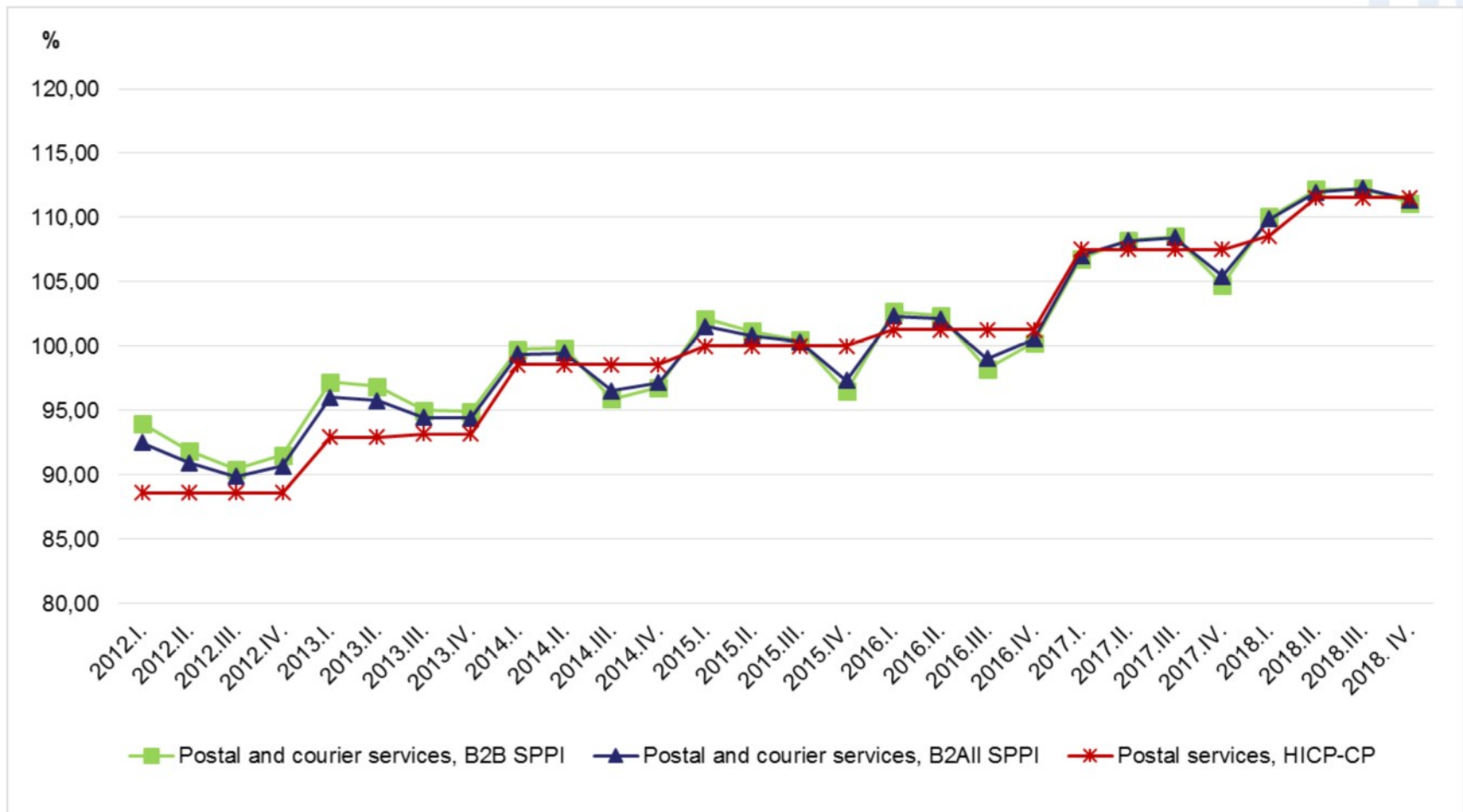
Differences could be observed as follows:

- ✓ **Frequency** (quarterly, monthly);
- ✓ Overall **methodology** used;
- ✓ **Classification** (NACE / COICOP);
- ✓ **Prices observed** (output (basic) prices / consumer prices);
- ✓ Questions on **domestic/non-domestic (export)** share of the markets;
- ✓ Questions on approaches to be followed:
 - combination of B2B with B2C or
 - observation directly B2All transactions?

Quarterly price indices for Postal activities (H53)

Hungary (2015=100)

B-All = BB+ HICP-CT

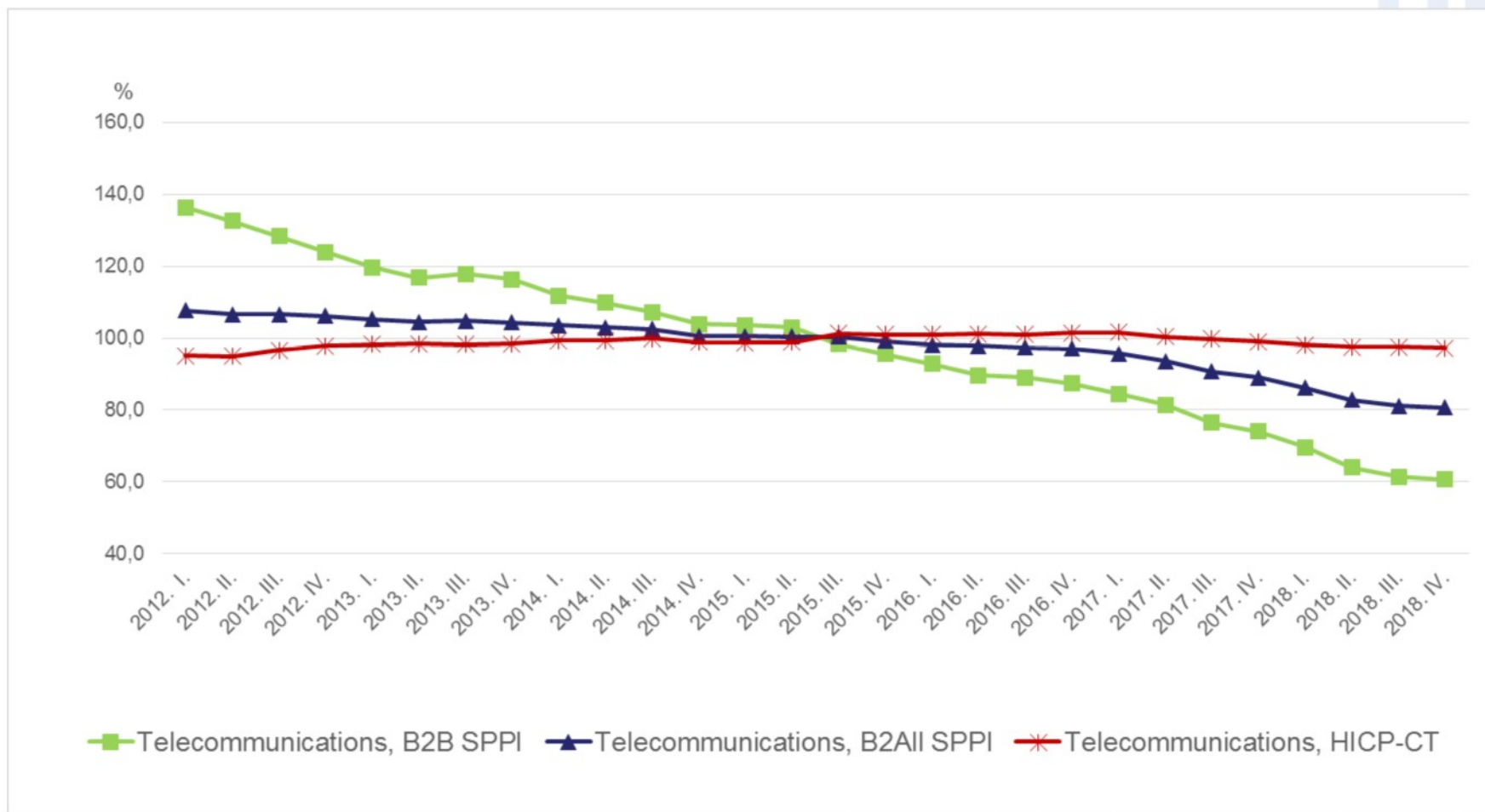




Quarterly price indices for Telecommunication (J61)

Hungary (2015=100)

B-All = BB+ HICP-CT



How to generate the monthly B-All indices from the quarterly SPPIs?

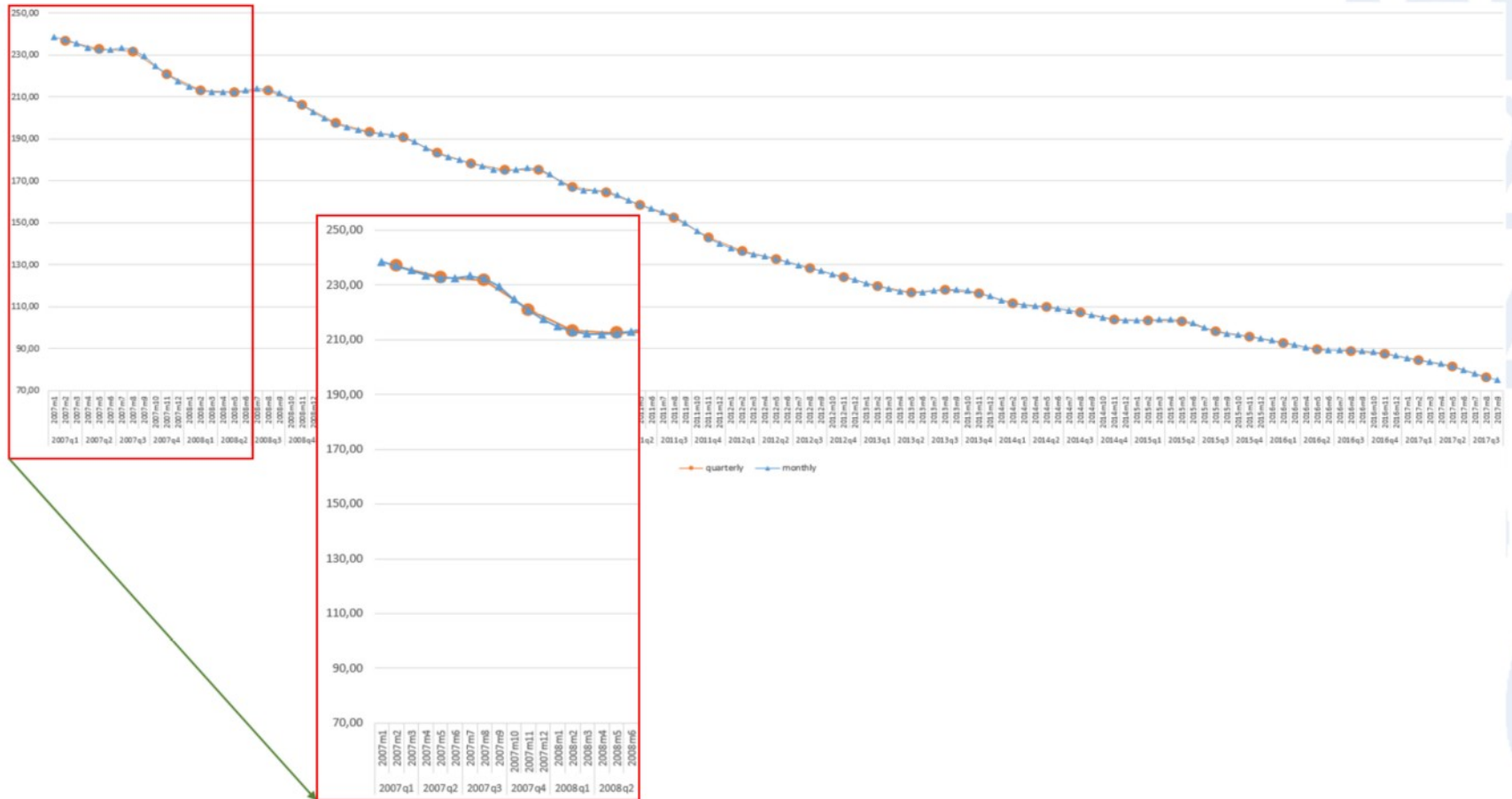
By **temporal disaggregation (2 options)** as follows:

1. Temporal disaggregation of quarterly B-All SPPIs;
2. Temporal disaggregation of quarterly B-B SPPIs and combination of monthly SPPIs (B-B) with the monthly HICT-CT applying the appropriate weights.

According to pilot study, the **second alternative** is probably better, because the HICT-CT is basically a monthly index and we only estimate the B-B part.

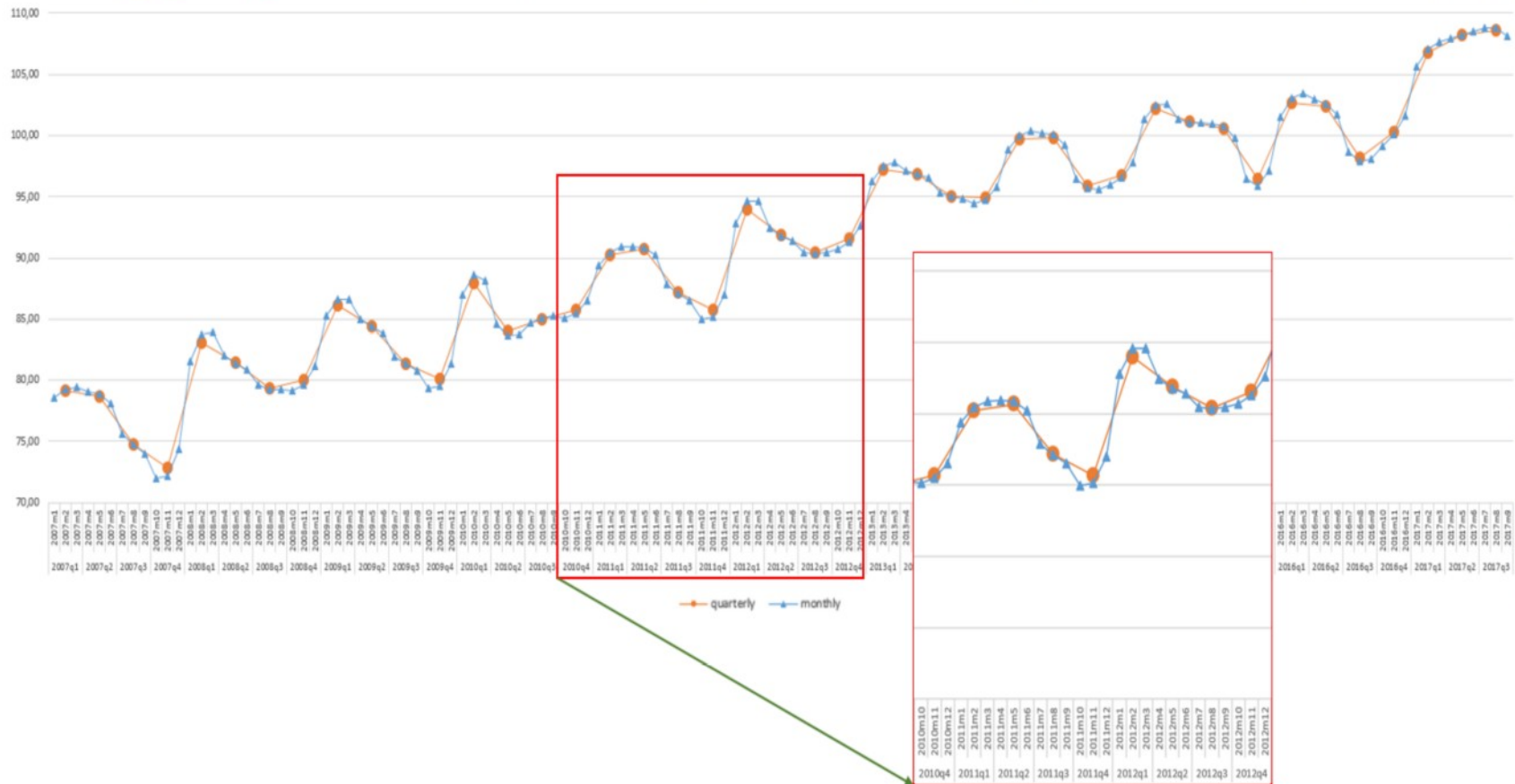
Furthermore in this way the average of the monthly indices are closer to the quarterly indices.

Disaggregation of quarterly SPPIs (B-B) to monthly SPPIs



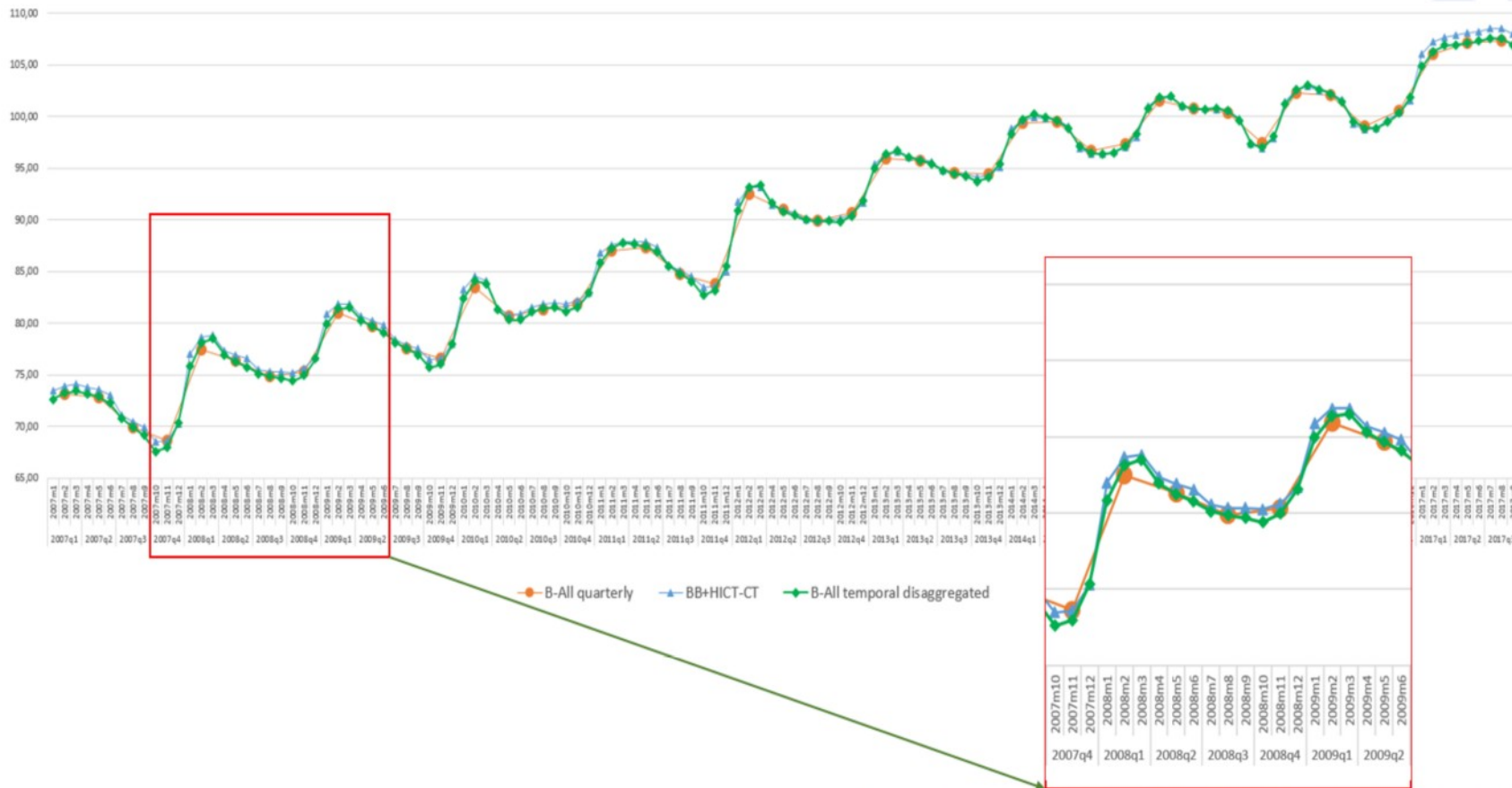
V. Quarterly and monthly price indices for Postal activities, Hungary, 2012-2017 (2015=100)

Disaggregation of quarterly SPPIs (B-B) to monthly SPPIs



V. Quarterly and monthly SPPIs, for H53 Hungary, 2012-2017 (2015=100)

Postal activities (H53), B-All = B-B + HICP-CT



Definition of the export service

The **destination** is determined by the **residency** of the third party that has ordered or purchased the product.

- ✓ **Non-domestic market (Export)**: products or services sold to the non-resident customers,
- ✓ **Domestic market**: products or services sold to the resident customers.

Main challenges

- ✓ Availability of consistent data sources;
- ✓ Globalization in general;
- ✓ Establishing **affiliated companies/subsidiaries** abroad;
- ✓ To distinguish between the **international services** and **service exports** - different interpretation by the Statistical Office, Tax Office, data suppliers; (e.g. concerning *transport, postal and telecommunication services*).

Remark:

Export data are influenced by the **exchange rate** of the foreign currency. In Hungary price data received at foreign currency are converted to the HUF by the quarterly exchange rate of the Hungarian National Bank.

Examples for special cases

- ✓ Concerning the **freight transport by road activities**, export is the total **sum paid by a non-resident company regardless of national borders**;
- ✓ For **postal activities** the export is dominated by delivery of letters (parcels) coming from abroad for an **sum agreed between the national post offices** concerned.
- ✓ In the case of **telecommunication**, mobile network operators must establish **Roaming Agreements** to govern the exchange of customer billing data for their customers who “roam” on the visited network. Export is highly covered by **inboard** (foreign visitor’s) roaming rates. Roamers are not billed directly by the visited operator. They will be billed at home on the regular monthly bill.
- ✓ As regard the **accommodation**, export / **inbound tourism** means accommodation for foreign tourists in Hungary.

Data availability

- ✓ **SPPIs** are available for the **current STS-coverage**;
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Coverage by the type of the customer

B2All, B2B, B2C, B2E - product-based;

- ✓ **B2All** - computed as **weighted average of B2B and B2C**;
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- ✓ **B2C** - estimated by **consumer prices (HICP-CT)**.

Frequency: quarterly and monthly

Monthly B2B: temporal disaggregation of quarterly B2B SPPI

Monthly B2All: a weighted average of monthly B2B SPPI and monthly B2C (HICP-CT)



Thank you for attention!

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