Malta NSO
National Statistics Office
Uffiċċju Nazzjonali tal-Istatistika

Developing New Retail Trade Indicators Using Bank Card Data

Evidence from Malta

40th Voorburg Group Meeting on Service Statistics

Sam Sacco
Head of Short-term Business Statistics
National Statistics Office, Malta

September 2026

Study Rationale

From timeliness to greater detail

Previous NSO Malta research	Current research	Research Contribution
Can bank card data reproduce the existing Short-term Business Statistics turnover signal earlier?	**Can bank card data develop additional monthly retail trade indicators?**	**More monthly detail by activity and new regional activity**

- Builds on previous bank card data work
- Extends detail within NACE 47 – Retail Trade
- Explores new monthly indicators

Research Question and Applications

One source, three practical applications

How can bank card transaction data extend the range and granularity of monthly retail trade statistics?

1. Validation	2. Activity-level detail	3. Regional detail
NACE 47.11 **compare with STS**	**NACE 47.41** **new NACE class index**	**Gozo** **monthly retail indicator**

Greater detail while retaining timeliness and no additional reporting burden

The method in a nutshell

Selection, treatment, compilation and assessment

Link and classify	Select units	Treat and validate	Compile indices	Assess outputs
Bank card (BC) microdata + BR/NACE	**Rank by BR turnover & coverage**	**VAT checks & donor imputation**	**Monthly BC-based indices**	**STS benchmark or coverage checks**

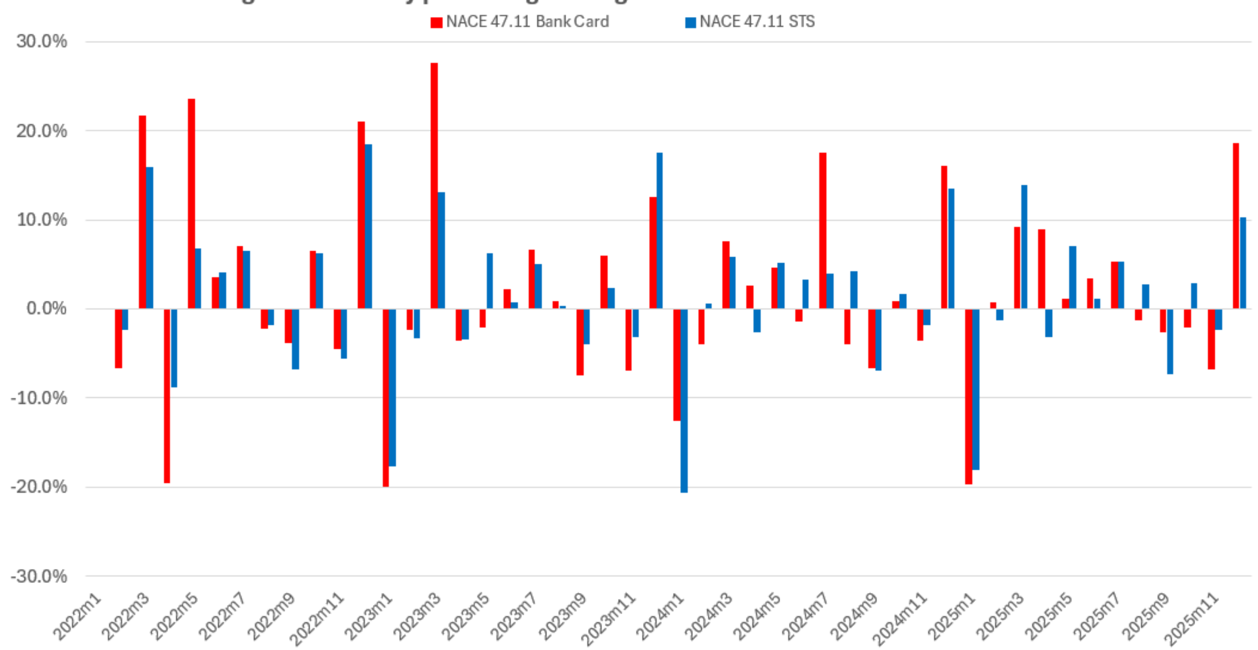
Supporting data sources

Statistical Business Register – Short-term Business Statistics – VAT

Application 1: NACE 47.11 validation

Retail sale in non-specialised stores with food predominating

Figure 1: Monthly percentage changes: NACE 47.11 STS vs Bank Card



MoM correlation

r = 0.839

Directional agreement

80.9%

Same direction

38 / 47 months

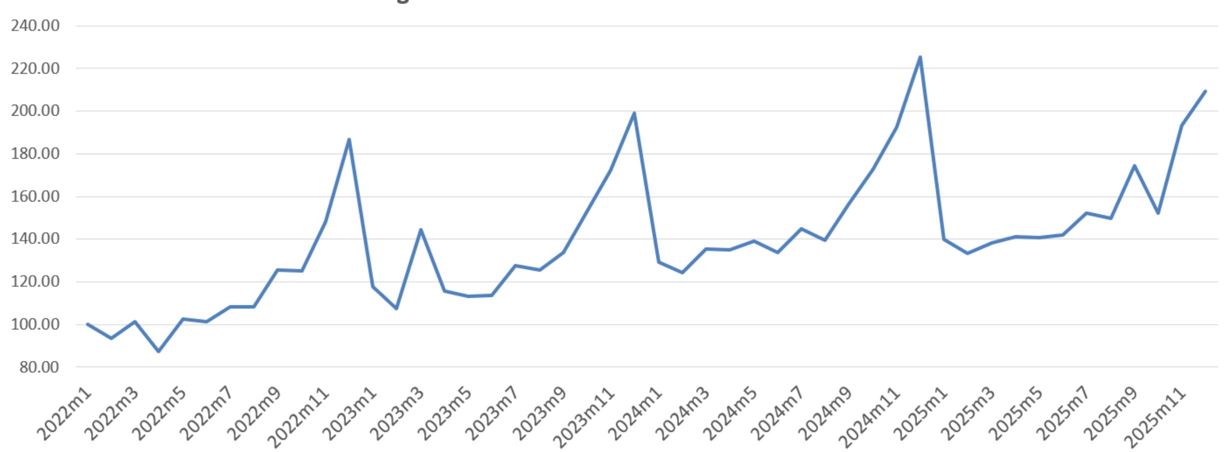
Application 2: NACE 47.41

Retail sale of computers, peripheral units and software

Bank card units	STS units
41	**8**

No equivalent monthly STS indicator is currently produced at this level.

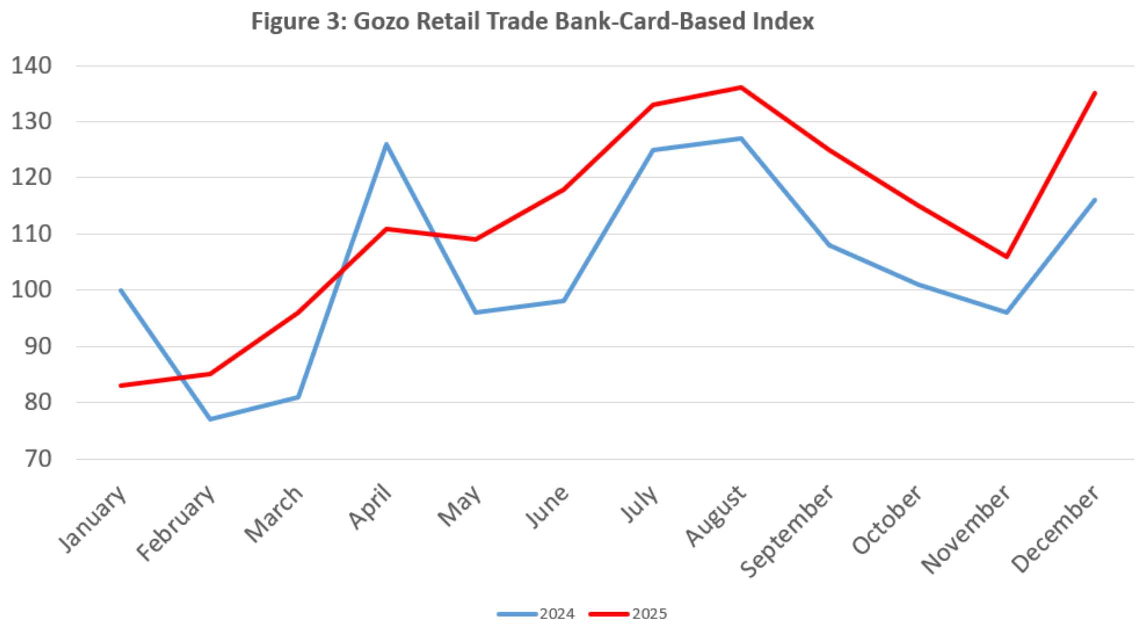
Figure 2: NACE 47.41 Bank-Card-Based Index



Recurring end-year peaks support plausibility of the new monthly NACE class series.

Application 3: Gozo retail trade

Using locality details to construct a regional monthly indicator



Initial BC units
308

Retained units
49

Coverage check
44 / 59
= 74.6%

Key advantage: card data can provide locality detail that other data sources cannot split by local unit.

Practical lessons

What the applications show for statistical production

Cut-offs may still be needed: not all bank card units provide stable, continuous data.

Detailed indicators may require initial statistical quality treatment.

Bank card data can extend the detail of monthly retail trade statistics.

The short-term signal is strong where a benchmark exists.

Experimental publication can be a first step towards regular production.

Conclusion

Evidence supports moving towards experimental & regular production

NACE 47.11	NACE 47.41	Gozo
BC indicator tracks monthly STS movements well.	**BC data can support new NACE class monthly indicators.**	**Locality data can support regional monthly retail statistics.**

- Bank card data can extend monthly retail trade statistics while retaining timeliness and no additional reporting burden, particularly when used within a multi-source statistical framework.
- The evidence supports a staged path from experimental indicators towards regular statistical production.
- Next step: experimental publication, continued monitoring and assessment for integration into regular production.