



Using EGR in FATS – The Swedish experience

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Abstract

The Euro Group Register (EGR) has become an increasingly important data source for National Statistical Institutes (NSIs) seeking to reduce costs, improve quality, and modernize statistical production. Statistics Sweden has worked extensively with EGR since reference year 2011, conducting long-term testing to evaluate its suitability for producing Foreign Affiliates Statistics (FATS). Beginning with reference year 2019, EGR was fully implemented in both Inward FATS (IFATS) and Outward FATS (OFATS). This paper presents the results of the testing phase, describes how EGR is integrated into the Swedish production process, and outlines the improvements achieved. The transition to EGR has led to higher coverage, better use of the ownership concept, reduced response burden, lower production costs, and shorter production cycles. Remaining challenges include coverage gaps outside the EU, missing data, and issues related to private equity ownership structures. The paper concludes with recommendations for further improving EGR, emphasizing the need for broader adoption among NSIs to enhance quality and reduce asymmetries in European FATS statistics.

Keywords: New data sources, FATS, EGR

1. Introduction

Many National Statistical Institutes (NSIs) face increasing financial pressure and a growing need to reduce production costs, Sweden is no exception. This has intensified the importance of using existing administrative data sources. The Euro Group Register (EGR) is one such source. This paper describes the testing phase, explains how EGR is used in both Inward and Outward FATS, and presents the outcomes of the transition.

2. What is the Euro Group Register (EGR)?

The EGR is a register of multinational enterprise groups jointly developed by Eurostat, EU Member States, and EFTA countries, supplemented with data from commercial providers. The register consists of three interconnected tables: legal unit, enterprise and enterprise groups. These tables include variables such as administrative information, country of residence, turnover, employment, NACE codes, ownership variables, and identifiers.



3. What are Foreign Affiliates Statistics (FATS)?

FATS measure the economic activity of multinational enterprise groups and are regulated by Eurostat and delivered annually. FATS consist of two components:

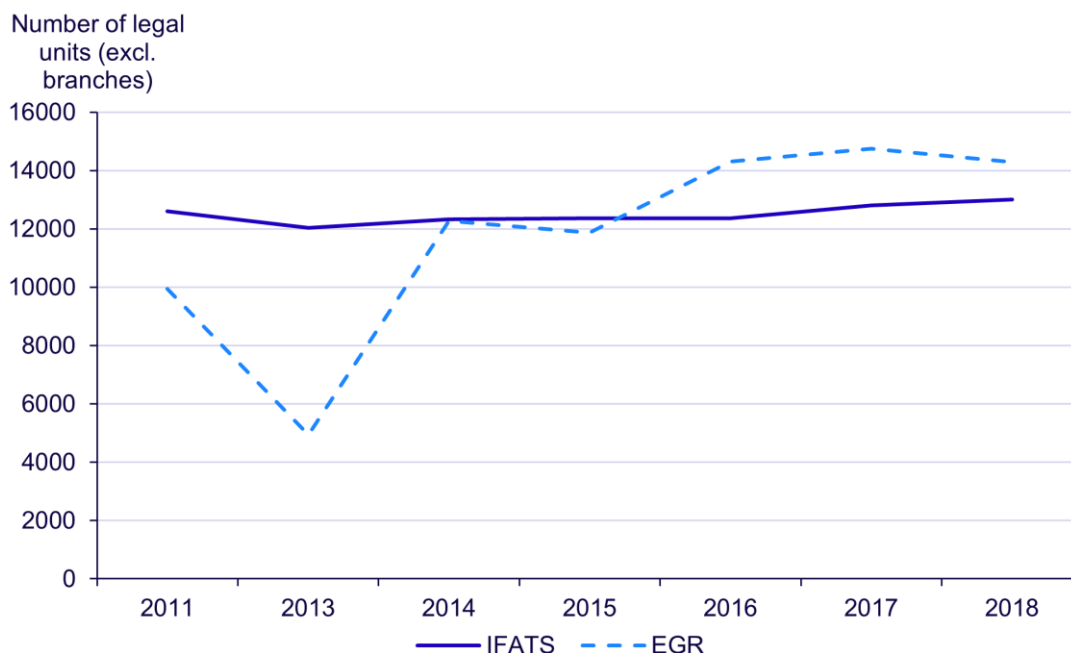
- Inward FATS (IFATS) = Describes the activities of foreign-owned enterprises operating within a country.
- Outward FATS (OFATS) = Describes the activities of domestic enterprises operating in foreign countries.

The nationality of an enterprise group is determined by the nationality of the head of the enterprise group.

4. Testing EGR

Extensive testing began with reference year 2011, focusing primarily on IFATS, where a register-based approach was planned. For OFATS, the testing aimed to verify whether the EGR contained the relevant enterprise groups and could be used to create the population. The initial quality of EGR was low, but coverage improved steadily and eventually surpassed Sweden's existing IFATS population. By 2016, EGR contained about 10% more legal units than IFATS. Branches was excluded from this chart since they were added to EGR in 2018.

Chart 1: Number of legal units (excluding branches) in EGR vs IFATS, 2011-2018.





However, many legal units lacked employment data. Replacing EGR employment figures with data from Structural Business Statistics (SBS) significantly improved completeness and resulted in higher total employment than in IFATS.

Chart 2: Number of employees in EGR vs IFATS including EGR with employees from SBS.

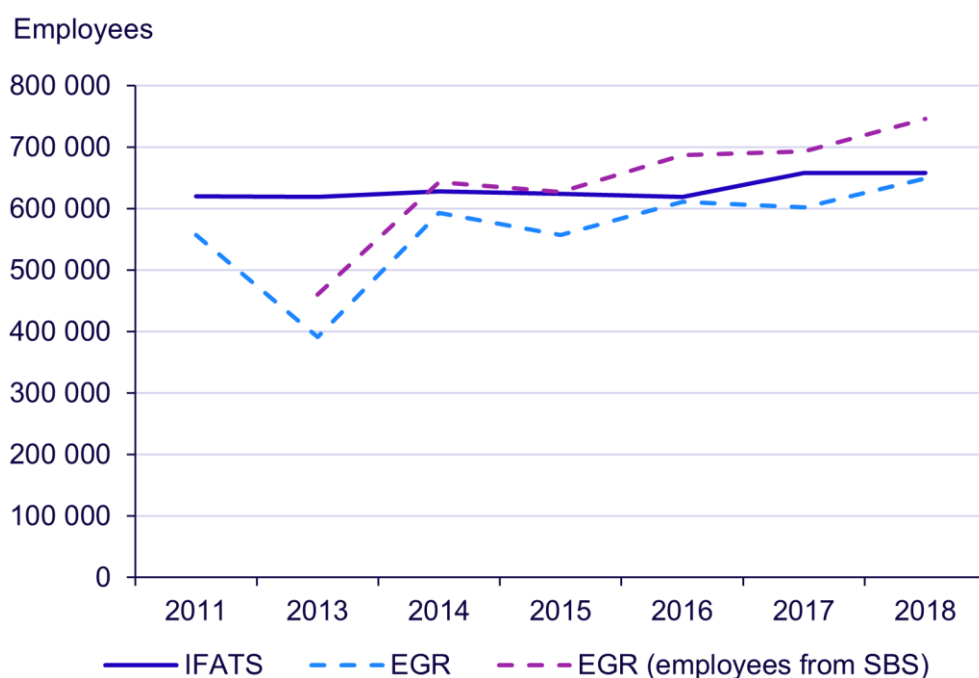
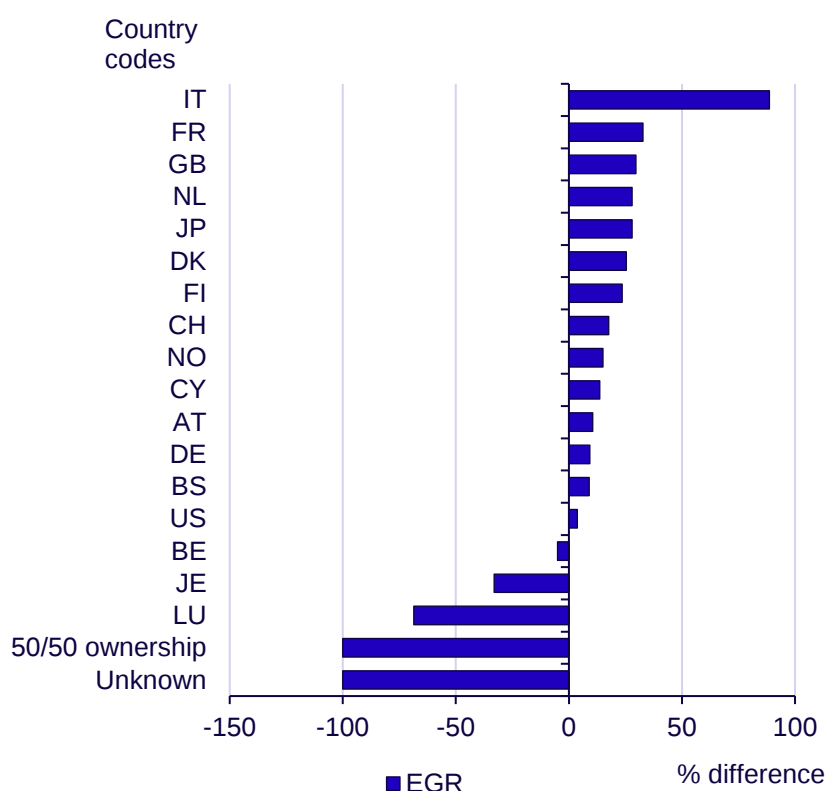


Chart 3: Number of legal units per country code, EGR vs IFATS 2018. %-



difference.

Comparisons of country codes revealed substantial differences between EGR and IFATS. For example, Italian owned enterprises had nearly twice as many employees in EGR. Ownership in tax havens such as Jersey and Luxembourg was lower in EGR, and divided or unknown ownership was absent in EGR.



To determine which source was more accurate, all legal units with discrepancies were listed and sorted by size. The largest units were manually checked against annual reports and administrative sources. In 9 out of 10 cases, EGR was correct and IFATS was incorrect, demonstrating that EGR was the superior source.

5. Using EGR in IFATS

Until 2018, IFATS relied on a questionnaire-based survey. The population was created from last year's survey and updated annually using the Business Register (BR) and other administrative sources. This approach had two major weaknesses:

1. Newly foreign-controlled enterprises could be missed.
2. Respondents often misunderstood the ownership question, leading to incorrect reporting.

From 2019 onward, IFATS is produced using SBS as the base and EGR for ownership information.

6. Effects of using EGR in IFATS

Using EGR instead of a questionnaire created several positive effects:

- **No response burden.** Respondents don't have to fill out a questionnaire.
- **Cheaper production.** Since there was no need to gather data through a questionnaire the cost of production was lowered by 50%.
- **Lower workload.** No need for data gathering and the need for data validation is much lower using EGR. Shorter production cycle, from 5,5 months to a few days or a week.
- **Higher coverage.** More enterprise groups are covered in EGR compared to the old method.
- **Higher quality.** The quality of the statistics has increased with better use of the ownership concept. Less ownership in tax havens and no divided ownerships.
- **Increased comparability.** Asymmetry problems are big in FATS and EGR solves this problem if both parties use EGR as a source.



7. Using EGR in OFATS

Before 2019, the OFATS population was purchased from a commercial provider. This population suffered from low quality, missing enterprise groups, and incorrect or incomplete economic data.

From 2019 onward, EGR enterprise table is used to construct the OFATS population. The population is improved using data from last year's survey. As much as possible is pre-printed in the questionnaire before sending it to the head of the enterprise group. Respondents are asked to improve on the pre-printed data and add any missing country codes.

The EGR Preliminary Frame is used instead of the Final Frame. The two frames contain the same enterprise groups, but the Final Frame has more complete economic data. This provides more time for data collection and reduces the pressure during post-production.

During post-production the data is processed, and several imputations are made. Economic data from SBS is used for the Swedish part of the enterprise groups.

8. Effects of using EGR in Outward FATS

Using EGR in OFATS has created several positive effects:

- **Higher quality population.** The quality of the population is much higher compared to before with more precise data and better use of the ownership concept.
- **Cheaper production.** Using EGR removed the need to purchase the population from a commercial data provider which lowered the costs by 50%.
- **Lower response burden.** More data can be pre-printed in the questionnaire, lowering the time it takes for respondents to answer the survey.
- **Lower workload.** More pre-printed data means less data validation due to incorrect numbers from the respondents.



- **Quality of the statistics.** Better coverage and use of the ownership concept create better quality. The pre-printed data helps with quality and data validation.
- **Increased comparability.** Better comparability with the rest of the EU, specifically those that also use EGR as a source for the population. This is a solution to the asymmetry problems that FATS statistics are facing.

9. Challenges with EGR

While EGR is very useful there are still a couple of challenges facing the register:

- **Coverage:** The coverage outside of EU is lacking where subsidiaries are sometimes missing, or the chain of ownership is broken outside of EU.
- **Missing data:** Specifically turnover and number of employees.
- **Quality:** EGR is not a flawless register, users still need to run data validation to spot and fix errors. Quality has, however, improved over the years.
- **Private equity:** Private equity firms and funds cause enterprise groups to disappear from OFATS when fund managers incorrectly exclude them. A solution to this problem has been accepted by Eurostat.

10. Conclusions and recommendations.

Using EGR has been highly beneficial for Swedish FATS, resulting in lower costs, reduced workload, higher coverage, and improved quality. However, further improvements depend on broader adoption of EGR among NSIs. For Sweden, increased use of EGR among Nordic countries would be particularly valuable. Continued collaboration and methodological harmonization are essential for strengthening the quality and comparability of European FATS statistics.