The Czech National Bank's approach to security-by-security data collection and compilation

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Introduction

The increasing complexity of the current economic system poses a major problem for compilers of statistics all over the world. As the central bank of the Czech Republic, the Czech National Bank (CNB) is responsible for collecting data and compiling different kinds of statistics, including securities (holdings) statistics. To keep up with coming changes, it was vital for the CNB to set up a securities holdings data collection system that would be robust in its ability to deal flexibly with new data user requests. This résumé provides some insight into the process of implementation of such a system and provides basic information on its main features.

Historical circumstances and the need for disaggregated data

In April 2006 the Czech National Bank (CNB) underwent a substantial organisational change. Three independent supervisory bodies were integrated into the CNB to create a single financial supervisor in the Czech Republic. This was an opportunity to start negotiations between statisticians and supervisors towards the implementation of a joint securities holdings data collection system. Such cooperation would lead to considerable synergies, including the avoidance of double reporting. Due to the need for flexible and high-quality data, a disaggregation trend prevailed. This was reflected in progress in the replacement of aggregated data sources by disaggregated ones. To be more specific, as of December 2006, 27.3% of the overall volume of cross-border assets was collected on a disaggregated (security-by-security) basis, but by December 2012 the percentage had increased to 99.8%.

Description of the securities holdings data collection system at the CNB

Starting in 2006, all securities data sources were implemented and/or gradually adjusted with respect to accommodating the needs of the different parties concerned. The most important stakeholders for these data sources at the CNB are the Balance of Payments Division, the Monetary and Financial Statistics Division, the

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Financial Accounts and Economic Statistics Division and the divisions of the Financial Market Supervision Department. The individual securities holdings data sources, together with their basic characteristics, are presented in Table 1.

Securities holdings data sources at the CNB as of December 2012   Table 1

Respondent	Respondent ESA2010 sector	Data collection channel	Level of aggregation	Frequency	Timeliness
Non-financial corporations (securities held via nonresident custody or in self-custody)	S_11	direct reporting	s-b-s	Q	Q + 30 days
Monetary and financial institutions	S_121, S_122	direct reporting	s-b-s	M	M + 15 days
Investments funds	S_123, S_124	direct reporting	s-b-s	M	M + 15 days (MMF's), M + 25 days (IF's)
Non-bank custodians	S_126	direct reporting	aggregate	M	M + 20 days
Insurance companies	S_128	direct reporting	aggregate	M	M + 20 days
Insurance companies	S_128	direct reporting	s-b-s	Q	Q + 45 days
Pension funds	S_129	direct reporting	s-b-s	M	M + 15 days
Short-term bond system	S_121	indirect reporting	s-b-s	M	M + 3 days
Custodians (banks + non-banks)	S_122, S_126	indirect reporting	s-b-s	M	M + 21 days

It is apparent that most financial sector institutions are covered by monthly security-by-security (s-b-s) direct reporting. The first exception to this rule concerns the sector of insurance companies, where two partly overlapping data sources exist. A monthly source is used for portfolio investment purposes (compilation of cross-border assets), whereas a quarterly s-b-s source serves for supervisory purposes. Unification of the two data sources (shift to monthly frequency) could be solved with the start of Solvency Ⅱ reporting. The second exception applies to the aggregated data source of non-bank custodians. Here, however, a change to s-b-s reporting is not planned due to marginal relevance (low volume of holdings). As to timeliness, for the data sources with monthly frequency the reporting deadline is 25 days after the end of reference month, while for quarterly frequency the deadline increases to 45 days.

The challenges ahead

Seven security-by-security data sources have been implemented within the Czech National Bank over a period of five years by different CNB divisions. One of the fundamental problems is a lack of consistency between these sources. The reports differ in:

- Data formats

- Reporting frequencies

- Reporting deadlines

- Methodology (*e.g.* valuation base: market value versus book value)

To solve the problem of different data formats and laborious manual processing of data, a project has been set up at the CNB to automatically convert all the separate security-by-security reports into one database. This database will serve as a basis for compiling a who-to-whom matrix at the national level. Furthermore, the database will be used for data reporting to the Securities Holdings Statistics Database (SHSDB), an ESCB-wide project with the objective of collecting s-b-s holdings by institutional sectors of euro area/EU reporting countries for both direct holdings and indirect holdings (third party holdings).

Conclusions

The statistical and supervisory bodies at the Czech National Bank have worked together to set up a common securities holdings data collection system that avoids double reporting and adapts flexibly to unforeseen data gaps. A disaggregation trend has prevailed and most securities data sources have been implemented on security-by-security basis and with monthly reporting frequency. The envisaged way forward is to set up a database where all the separate reports are automatically converted. This will become a basis for compiling a who-to-whom table and will be used for international reporting to the Securities Holdings Statistics Database (SHSDB).

References

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