

Success factors

In addition to careful analysis and planning of its adoption of XBRL, the Bank of Spain found several factors were important to success. They included:

- The establishment of a robust and flexible technical infrastructure for exchanging data between the central bank and reporting institutions. By enabling efficient communication and easy updating of taxonomies, the SIIF system provides a vital foundation for the use of XBRL.
- Efficient and easy-to-use validation, visualisation and other support services, which give reporting banks confidence in the use of XBRL.
- The provision of a dedicated software tool to make it easy for banks to convert their data into XBRL.
- The availability of the IFRS-GP taxonomy. The Bank of Spain collaborated in the development of this taxonomy: two workshops took place in Madrid where the first version was finished.
- The quick evolution of the XBRL standard, pointing the way to solutions for problems faced by the Bank of Spain, including approaches for handling dimensions, versioning and formulas.

Next steps

The Bank of Spain already has projects under way to extend XBRL reporting and is also planning technical improvements. Main areas of development include:

- *Reporting of bank risk and solvency information*

The Bank of Spain is helping to drive forward the COREP XBRL project under the auspices of the Committee of European Banking Supervisors (CEBS), which is intended to provide a common basis for reporting of risk and solvency information in the European Union using XBRL. A first version of the COREP taxonomy has already been published.

- *Reporting of bank financial statements under new European Union Guidelines*

The Bank of Spain is taking a leading role in the development of the FINREP taxonomy, which covers the prudential financial information which credit institutions in the European Union must periodically report under new guidelines issued by CEBS. An early draft of the FINREP taxonomy has been issued.

- *Reporting of data to European Balance Sheet Data Offices*

Work is under way on an XBRL project for the reporting of data on non-financial corporations required by questionnaires from the European Committee of Central Balance Sheet Data Offices (ECCBSO).

- *Spanish corporate statistics*

The Bank of Spain is working to convert a voluntary system for the collection of statistics from Spanish companies to XBRL. Collected on CD, the data is currently received in text format.

- *Storage of XBRL data*

In a further step to upgrade its infrastructure to handle XBRL, the Bank is planning to move its storage of data to a system which will support improved analysis. This is expected to use XBRL to provide a standardised metadata layer. It is intended to simplify maintenance, allow more flexible updating and provide more powerful analysis of data available in XBRL.

Conclusion

The Bank of Spain has achieved a major success in introducing XBRL for monthly reporting by the country's banks. The project moved forward quickly and smoothly and has led to substantial improvement in data quality and a reduction in manual effort. The project has also established an efficient infrastructure which will enable the introduction of further reporting in XBRL. The Bank is already moving ahead other important projects to broaden the range of data captured in XBRL.



XBRL CASE STUDIES: SHOWING XBRL IN USE

The Bank of Spain

More than 400 banks are filing monthly financial statements in XBRL to the Bank of Spain, which is responsible for overseeing the country's banking system. The introduction of XBRL for this reporting has enabled automatic data validation, achieved better quality of data and reducing manual effort. The Bank of Spain is now pushing ahead plans for expanded use of XBRL.

Key features of the Bank of Spain's use of XBRL

- **The Bank of Spain gathers information from Spanish financial institutions as part of its roles in overseeing the country's banking system and collecting statistics and reporting data for all companies to the European Central Bank.**
- **The Bank of Spain has played a key role in advancing the use of XBRL in Spain. It sees XBRL as offering major benefits in the efficiency and accuracy of business reporting. It is supporting a number of XBRL projects in addition to monthly reporting by banks, including projects for regulatory reporting to European banking supervisors.**
- **The Bank examined the use of XBRL in 2003 through a pilot project to introduce XBRL for regulatory reporting by appraisal companies, which are involved in the appraisal and valuation of property and other goods.**
- **Based on experience with this pilot, the Bank set up its SIIF Financial Data Exchange System for receiving regulatory reporting in XBRL from financial institutions.**
- **Banks are reporting using an International Financial Reporting Standards (IFRS) taxonomy developed by the International Accounting Standards Committee Foundation, which has been extended by the Bank of Spain to cover some additional Spanish requirements.**
- **The Bank of Spain provides software to help reporting organisations put their data into XBRL and a range of validation and other services to help submitters file correct data.**
- **Monthly financial statements filed by banks cover a fixed set of data. No individual company extensions to the central bank's taxonomy are required.**
- **The XBRL filing system makes use of formulae to enable automated validation of the data being submitted.**

Chief results

- **More than 400 banks, some 90 pct of the financial sector, are reporting monthly financial statements in XBRL to the Bank of Spain.**
- **The introduction of XBRL has enabled banks to validate data automatically prior to submission, leading to significant improvement in data quality.**
- **The Bank of Spain is now working to extend XBRL reporting to cover reporting of solvency and financial information required under new European Union regulations on banking supervision.**

CONTACTS

Further information is available from the Bank of Spain via e-mail at xbri@bde.es.

Alternatively, for general information on XBRL and XBRL projects around the world, please contact info@xbrl.org.

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For more information on eXtensible Business Reporting Language (XBRL) and for case studies on other major XBRL projects, see the XBRL International website at www.xbrl.org/CaseStudies.

The background

The Bank of Spain supervises the performance of the nation's banks and other financial organisations, gathering a wide range of data for its own purposes and for reporting within the European Union. In the past, it collected all this information through electronic data files based on proprietary formats. No standard automated validation systems were available to check data prior to entry. Data validation was thus manually intensive, expensive and prone to inaccuracy.

Recognising the potential of XBRL, the Bank of Spain became involved in the international XBRL consortium and in 2003 pushed forward a pilot project to examine the use of XBRL in practice.

This covered regulatory reporting by Appraisal Companies, which carry out the appraisal and valuation of property and other goods. This was a suitable basis for a pilot since reporting involved a fixed set of data and was relatively straightforward and only about 40 companies were involved.

Following successful completion of this pilot, the Bank of Spain carried out an analysis in 2004 supported by PricewaterhouseCoopers of its flows of information to identify

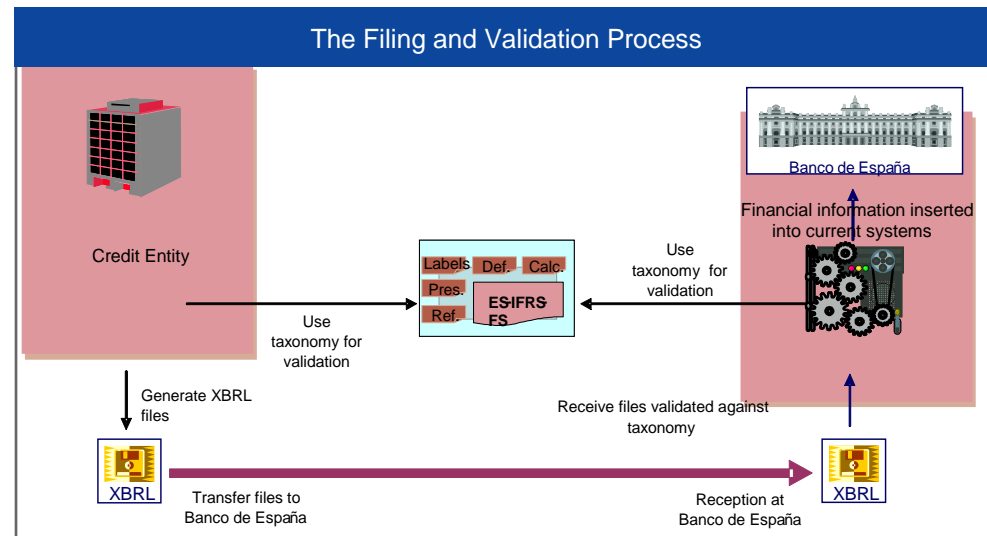
The large volume of data involved meant that the use of XBRL promised significant benefits but risk was limited by the tight definitions of content.

The Bank also identified the need for a new technical infrastructure to handle all future XBRL reporting. It has a single IT department covering all business systems at the Bank, so creating a common infrastructure to support all XBRL filing was a logical step.

It thus planned and developed its Financial Information Interchange System (SIIF) during 2004-5.

This supports a range of encrypted communication mechanisms between submitters and the Bank of Spain. It also provides a range of services to aid institutions in filing valid information to the Bank, including validation and visualisation services. The use of these is described in the next section.

The Bank of Spain developed a taxonomy to cover credit institutions monthly data by creating an extension to the IFRS General Purpose taxonomy issued by the IASCF. This represented the first major international live use of an international accounting standards taxonomy.



where the introduction of XBRL would bring most benefit. This led to a plan for specific projects to adopt XBRL.

The Bank was also a founder member of the Spanish XBRL jurisdiction, set up in 2004, which promotes the use of XBRL in Spain and represents the country's interests in the international XBRL community.

The implementation process

The analysis in 2004 of the Bank of Spain's use of financial data identified monthly reporting by credit institutions as a suitable area for the introduction of XBRL. The reports consist of banks' public financial statements, but not the detailed notes or other explanatory disclosures contained in full accounts. The data requirements were already fixed by the Banks reporting regulations. All banks share the same form of chart of accounts.

The Bank added some 500 Spanish-specific elements in its extension and actively uses just over 200 elements from the base IFRS-GP taxonomy, which is a large taxonomy covering a broad range of data.

To enable submitters to validate their data prior to submission, the Bank developed a range of formulae to accompany the taxonomy and check aspects of the data, including arithmetical accuracy and the presence of particular data items if certain rules apply. The Bank also developed and provided software to enable credit institutions to convert their data easily from plain text to XBRL format. This software, tailored to Spanish filing requirements, was intended to smooth the process of XBRL adoption, but the Bank does not intend to maintain it indefinitely. It expects submitters in due course to adopt software offered by the market for extracting and creating data in XBRL.

The Bank will only accept the fixed set of regulatory data required by law, so its software is not required to support company extensions to the data being submitted.

The Bank of Spain funded all technical development and infrastructure, using Fujitsu to meet its XBRL software requirements.

From June 2005, the seven largest banks in Spain began using the SIIF system to file monthly data in XBRL and this number has since rapidly grown to more than 400, covering 90 pct of the financial sector. As of May 2006, only some small banks remained to be added to the system.

XBRL filing process

Using the tool and guidance documents provided by the Bank of Spain, credit institutions can convert their text-based data to XBRL through a smooth and easy process.

They can then use the SIIF system to submit their data for validation and also view it in a browser through the visualisation services provided by the Bank. They may also contact reporting and error-consulting services at the Bank for help over issues with their submission.

Results

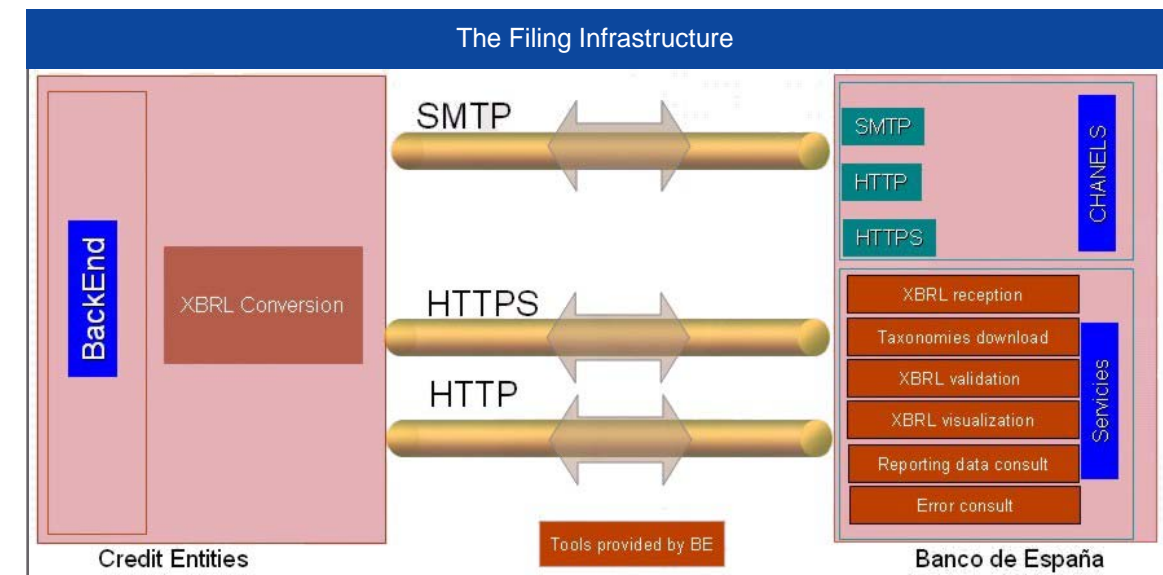
The Bank of Spain has found that the introduction of XBRL, by enabling credit institutions to validate their reports prior to submission, has led to a major improvement in data quality and reduced manual effort involved in checking data.

The use of XBRL-based formulae to validate data has provided an efficient and flexible way for the Bank to communicate business rules to reporting institutions, simplifying potentially complex and time-consuming discussion.

In addition, the project has led to a re-evaluation of information flows and business requirements within the Bank, strengthening cooperation between IT and business departments and pointing to further opportunities for the use of XBRL.

Lessons learned

The Bank of Spain adopted XBRL in careful stages, beginning with a pilot project covering a manageable range of data, and performing a comprehensive analysis of data flows and use, opportunities and risks, before moving to further implementation.



Once the submitting organisation has confirmed the validity of its report and it is happy with the data, it provides a formal submission via the SIIF. The Bank responds with automated messages confirming acceptance of the report or advising of errors.

The Bank uses the data solely for internal analysis and evaluation of the performance of the financial system; it does not publish the reports submitted by banks. However, bank associations will publish the XBRL data with help from the Bank of Spain.

Among issues faced was a relatively limited experience of web services and technologies which underlie the SIIF, requiring a learning curve for those involved in the project. Technical platforms and XBRL software were not mature when it embarked on the project.

To provide an easy route for banks to adopt XBRL, it decided to supply a dedicated software tool, customised to meet specific reporting requirements by credit institutions.