

Case Study

Financial Analysis Tool

AltexSoft helps reimagine risk analysis through a powerful bank performance tool

Finance & Banking, Fintech, Risk Analysis, Data Analysis, Data Visualization, Microsoft ASP.NET, AngularJS

Background

The client is a US-based fintech startup, founded by a financial analyst. The product is a bank analysis software platform, created with the aim to improve the functionality and user experience associated with financial reports.

Serving mostly banking institutions and bank regulators, the tool is used to transform risk and performance data into comprehensive and structured information. With the help of a user-friendly, intuitive program interface the users can further process, analyze and utilize the information to support:

- Peer Benchmarking
- Client Sector Research
- Bank exam Preparation
- M&A Targeting and Due Diligence
- Safety & Soundness Monitoring
- Strategic Planning
- Director Education



Business Challenges

Making the publicly available financial information more accessible and user-friendly, the project's goal was to modernize the process of regulatory data management and interpretation. Hence, our team needed to handle the following aspects of the project:

1.

Retrieving public financial data from external sources

2.

Data processing and analysis according to a set of metrics

3.

Implementing powerful data visualization

4.

Enhancing the product usability through custom UX

Value Delivered

To deliver the end product of the required quality in accordance with the client's expectations, our team has accomplished the following:

1. Instant on-site access to the government financial regulatory data

The product aggregates the latest financial info from a number of federal government sources. It then applies novel “extract, transform, load” (ETL) methods to the raw data to make it more suitable for interactive data exploration. Hence, the exhaustive data store containing more than 13 years of historic records for 10,000 US banking institutions, is easily searchable and available to users on a 24x7 basis.

3. Powerful data visualization

Processed data can be presented in interactive charts, histograms, and waterfalls. The users can drill down within the information, click through the reports and add context to the records through data “mash ups”, making the best use of available data. In addition, our team has implemented a custom map point clustering algorithm. This allows us to present numerous markers on a map in a convenient and user-friendly way.

2. In-depth data analysis and transformation

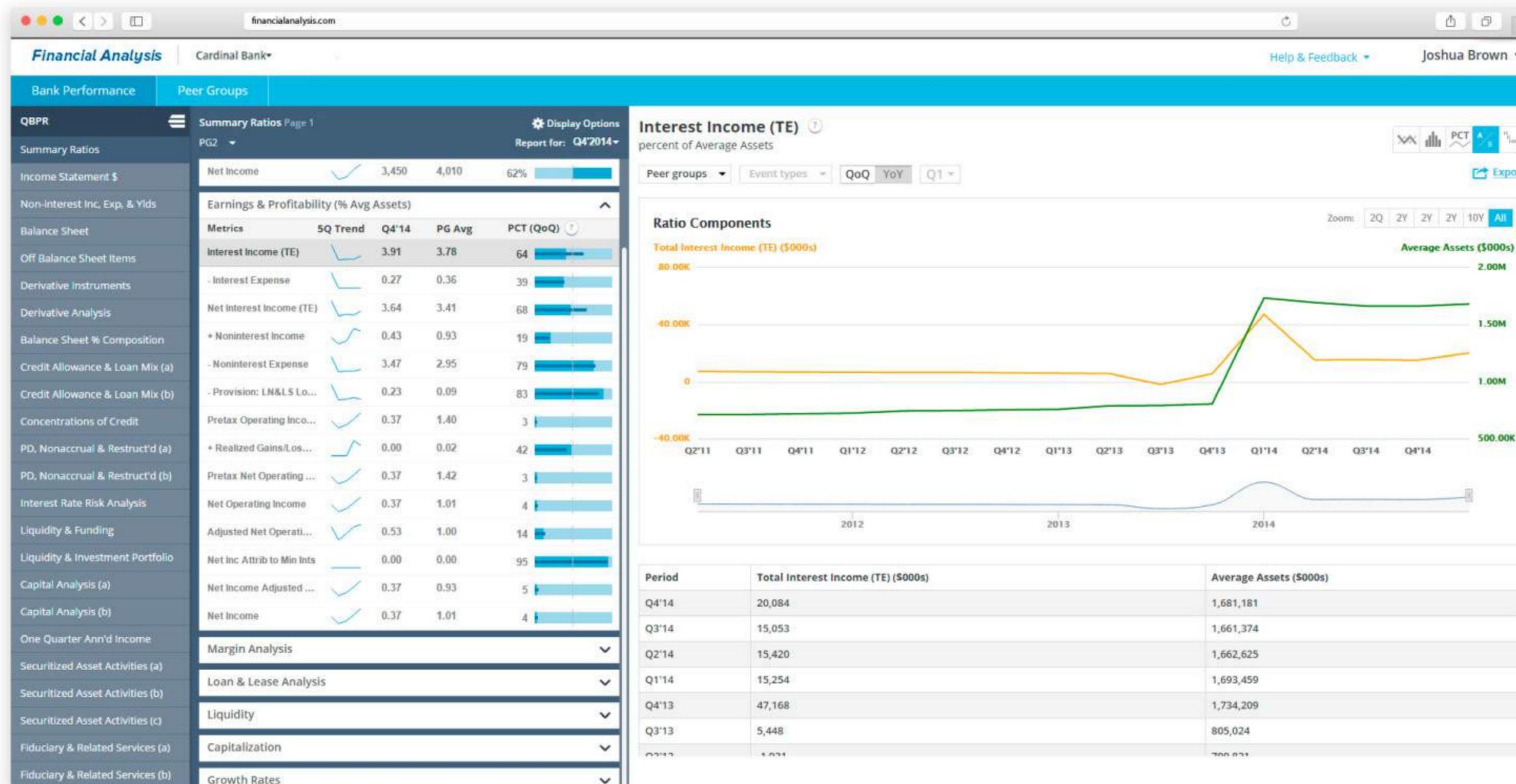
Every bank can be analyzed and compared to other institutions based on up to 1494 metrics. According to these criteria, the banks are organized into automatically predefined or manually created custom peer groups, enabling easy and relevant comparative performance analysis. Using the past data, the system can calculate the average bank performance ratios and compare this info to any other bank within the peer group. All reports are easily exported in convenient formats (Excel, pdf).

4. Modern sleek UI

We have transformed the way users access and interact with the financial info through major design enhancements. The product's user-friendly interface has an obvious advantage over the outdated industry tools, offering a flexible solution with intuitive UX and clean UI.

Bank Performance View

Financial Analysis Tool



Approach and Technical Info

It took nearly 2 years to develop the product from scratch. The final solution includes the full suite of financial data reports augmented with powerful features, like interactive data visualization, point-and-click peer group builder, exporting capabilities, “smart” bank search, geo-location and custom mapping features.

Technology stack consisted of:

Microsoft SQL Server, Microsoft ASP.NET, HTML/JS/CSS (AngularJS, LESS).

Additionally, SSIS (SQL Server Integration Services) was used for the ETL process, OSM (Open Street Maps) - for map point clustering, HighchartJS - for graphs and data visualization. The team used Git for version control. Continuous Integration was implemented using JetBrains, TeamCity.

Testimonial

“I continue to be impressed with your ability to run such a polished and professional application. The application and the ongoing support and improvements have allowed us to successfully introduce the product in a very competitive market. The data that it provides is used to make investment decisions and to help manage the safety and soundness of US banks. I’m proud of what you’ve created and I sincerely thank you.”

– **Founder & CEO, Fintech Startup, United States**

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