



Financial Reporting Council

CODEx Data Model

A data model using XBRL inputs

May 2025

Confidential

Introduction

What is CODEx

The Financial Reporting Council (FRC), in collaboration with Companies House, the Financial Conduct Authority (FCA), the Charity Commission for England and Wales, HMRC, and other partners, launched the 18-month Company & Organisational Data Explorer (CODEx) Project in September 2023. Funded by the Department for Science, Innovation and Technology (DSIT) through the Regulators' Pioneer Fund. The project aspired to accelerate the use of structured financial data to support economic growth, long-term investment, and the enhancement of the UK's capital markets.

The CODEx project was designed to address the challenges of accessing and using structured financial data, which is often siloed and difficult to analyse. The UK is a leader in collecting company data in iXBRL (Inline eXtensible Business Reporting Language) format, with 88% of the 3.1 million accounts published annually on the Companies House register available in this format. Notwithstanding the excellent UK record of enabling iXBRL, the usability of this data has been limited because of quality and consistency issues, impacting its value to the public, investors, regulators, and government agencies. The project's objective was to provide equal opportunities of access for all users of the data in the UK.

The project aimed to:

- Facilitate investors' access to information about UK companies to support investment decisions.
- Help businesses make more informed decisions about their suppliers and creditors.
- Enable regulators and government agencies to use existing data more effectively and efficiently

As part of the project we developed two products, the first product was a regulatory toolkit. that allowed regulators to consume and review processed XBRL based data from companies and organisations and secondly a viewer that allowed the XBRL data to be viewed in situ with the digital annual reports.

This document provides an overview of the data model that we created to support the toolkit. We hope that the data model provides useful for those wishing to develop their own database that utilises XBRL company data.

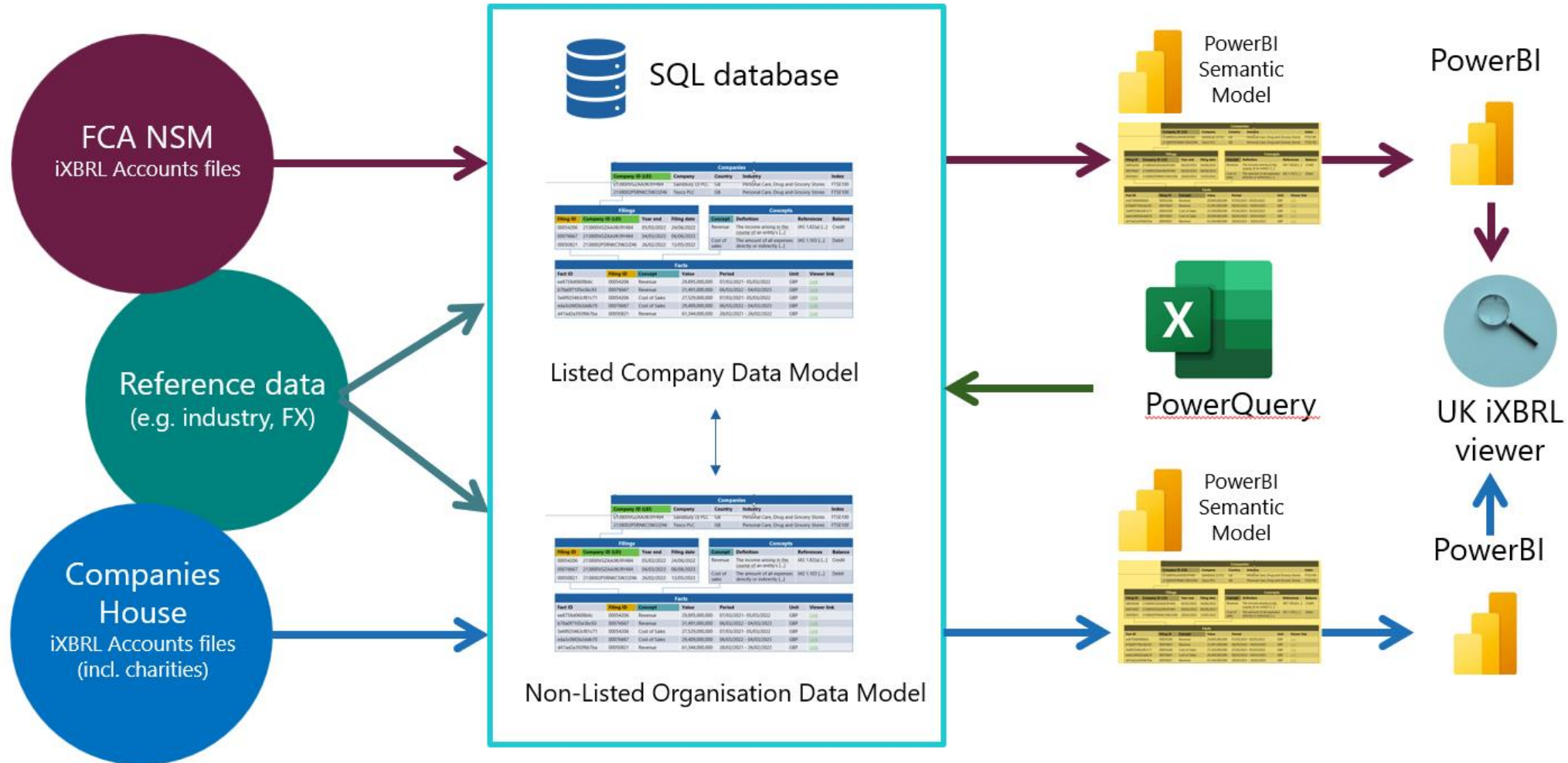
What sort of uses can the data model be used to support?

Use case		For Example,	
1	Bulk analysis of XBRL data to identify companies with specific or outlier values	a	Identify the population of companies/charities meeting certain size criteria (e.g. 250 employees plus)
		b	Identify and analyse companies/charities with specific values for certain XBRL tags (e.g. assets, liabilities, income or expenses)
		c	Analyse and visualise the values of specific XBRL tags for companies/charities in a particular industry or index
		d	Identify the companies who are applying a particular rule or standard (e.g. IFRS 17)
		e	Assess companies/charities against custom risk indicators (e.g. liquidity, solvency, impairments, late filing date)
2	Quality review of annual reports after submission	a	Check whether required annual report disclosures have been provided
		b	Identify tagging errors (e.g. unusually large amounts, extensions or unexpected signs)
		c	Run custom validation rules

High-Level Infrastructure

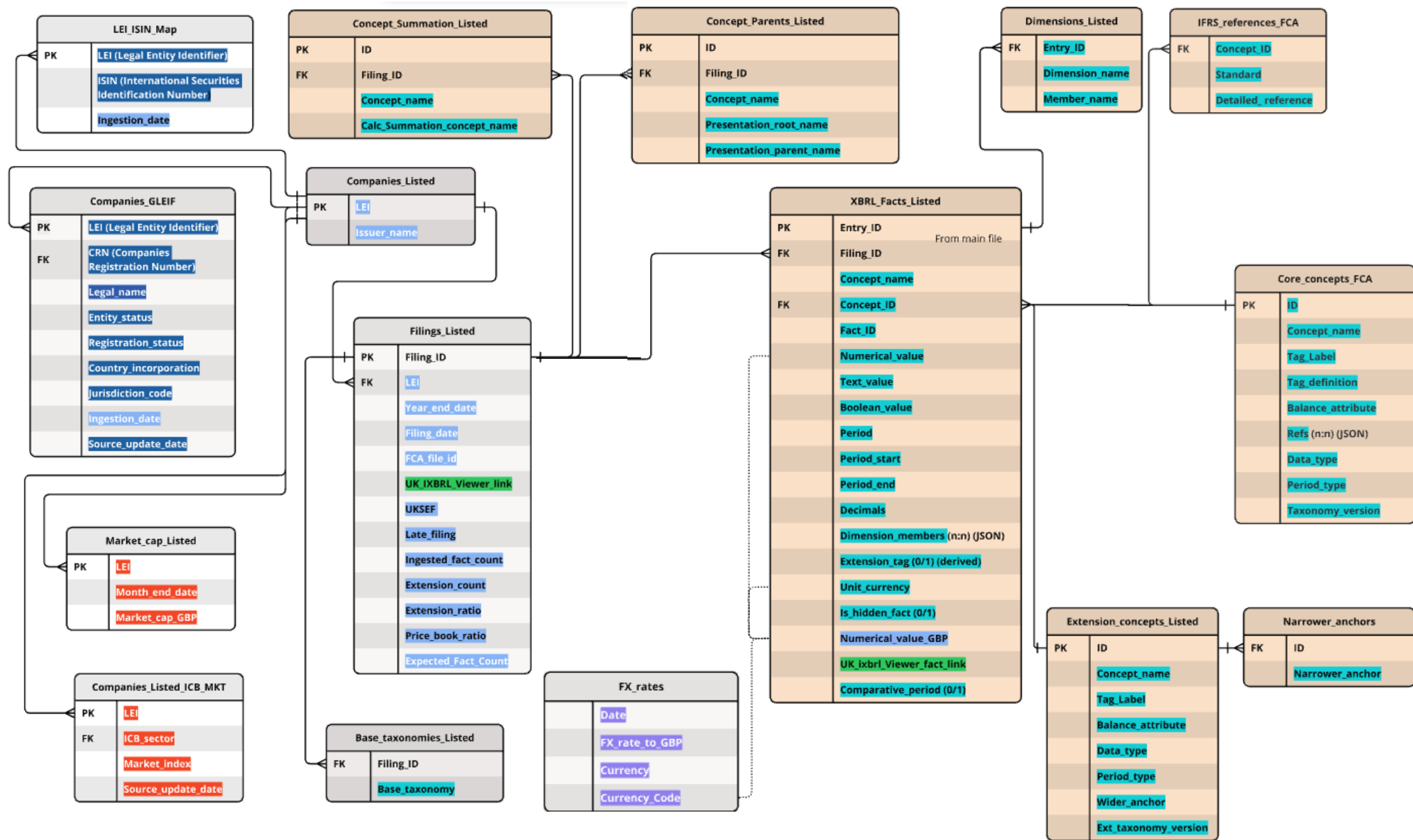
XBRL data platform

Overall infrastructure



A Listed Company Model

An XBRL based data model



Reference Data Sources
National Storage Mechanism Meta Data
Commercial Market Data Source
Global Entity Identifier Foundation
Office for National Statistics
Derived fields
Data within the XBRL files
Processed XBRL data from Listed Company files
PK = Primary Key
FK = Foreign Key

Relationships

- Companies_Listed and XBRL_Facts_Listed are linked by **Filing_ID**.
- Companies_Listed_ICB_FTSE and Companies_Listed are linked by **LEI**.
- LEI_ISIN_Map and Companies_GLEIF are linked by **LEI**.
- Market_cap_Listed and Companies_Listed are linked by **LEI**.
- Dimensions_Listed and Facts_Listed are linked by **Entry_ID**.
- IFRS_references_Listed and Core_concepts_Listed are linked by **Concept_ID**.
- Concept_Summation_Listed and Core_concepts_Listed are linked by **Concept_name**.

Data Sources

- FCA NSM - [National Storage Mechanism | FCA](#)
- GLEIF - [GLEIF API - LEI Data – GLEIF](#)
- LEI to ISIN - [Download ISIN-to-LEI Relationship Files - LEI Mapping - LEI Data – GLEIF](#)
- Office for National Statistics - [Average Sterling exchange rate: Euro - Office for National Statistics](#)
- UK iXBRL Viewer - [UK iXBRL Viewer](#)

Non-Listed Organisation Model

An XBRL based data model

Reference Data Sources

Companies House Meta Data

Office for national statistics

Derived fields

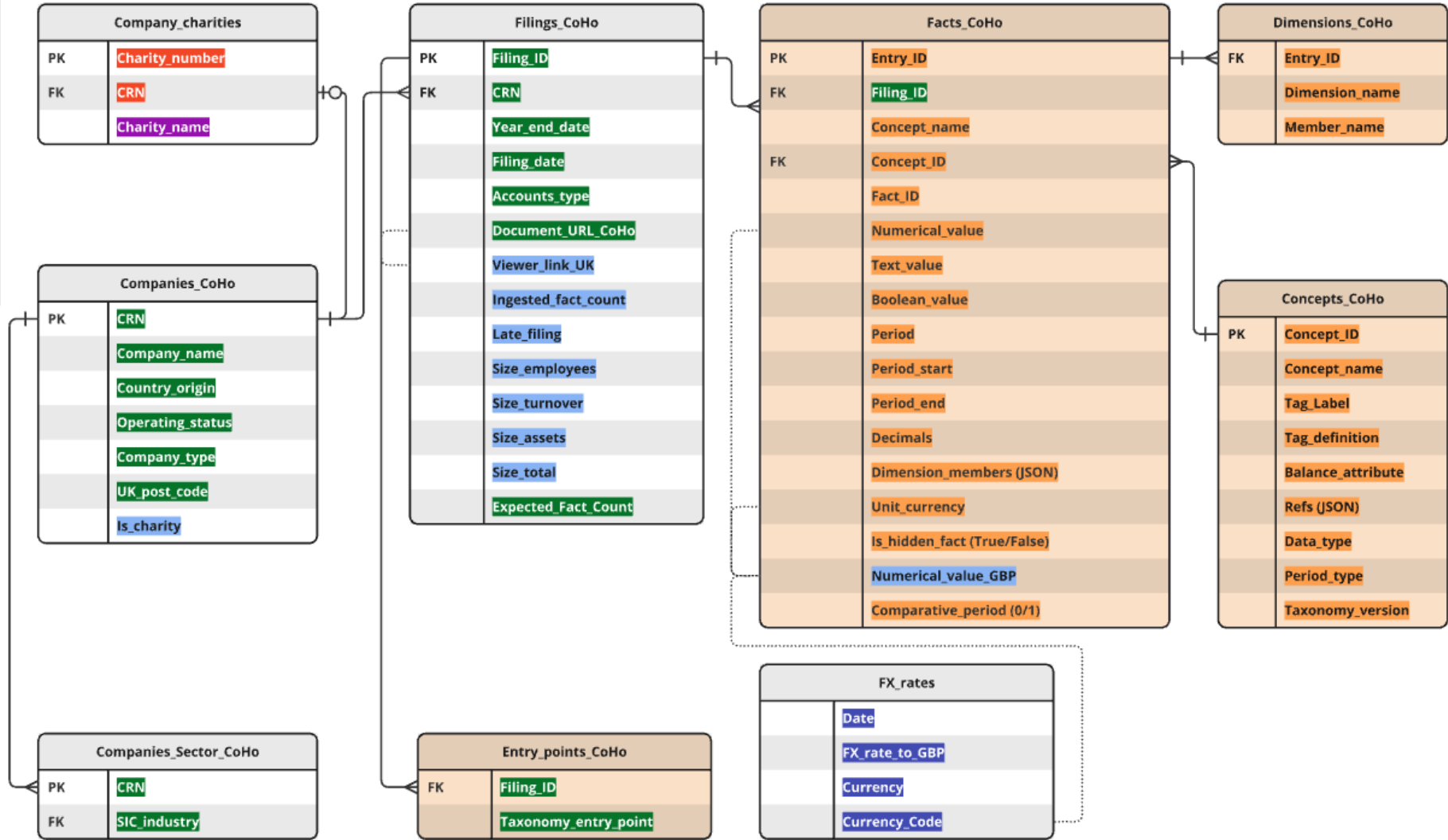
Data within the XBRL files

Processed XBRL data from Non Listed Company files

PK = Primary Key

FK = Foreign Key

Charity Register Meta Data



Relationships

- Companies_CoHo and XBRL_Facts_CoHo are linked by **Filing_ID**.
- Companies_Sector_CoHo and Companies_CoHo are linked by **CRN**.
- Dimensions_CoHo and Facts_CoHo are linked by **Entry_ID**.
- Filings_CoHo and Companies_CoHo are linked by **CRN**.

Data Sources

- Companies House - [Companies House API Overview](#)
- Charity Register - [Documentation on the API](#)
- Office for National Statistics - [Average Sterling exchange rate: Euro - Office for National Statistics](#)
- UK iXBRL Viewer - [UK iXBRL Viewer](#)



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