Data plausibility checks under time-pressure

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Classification: public
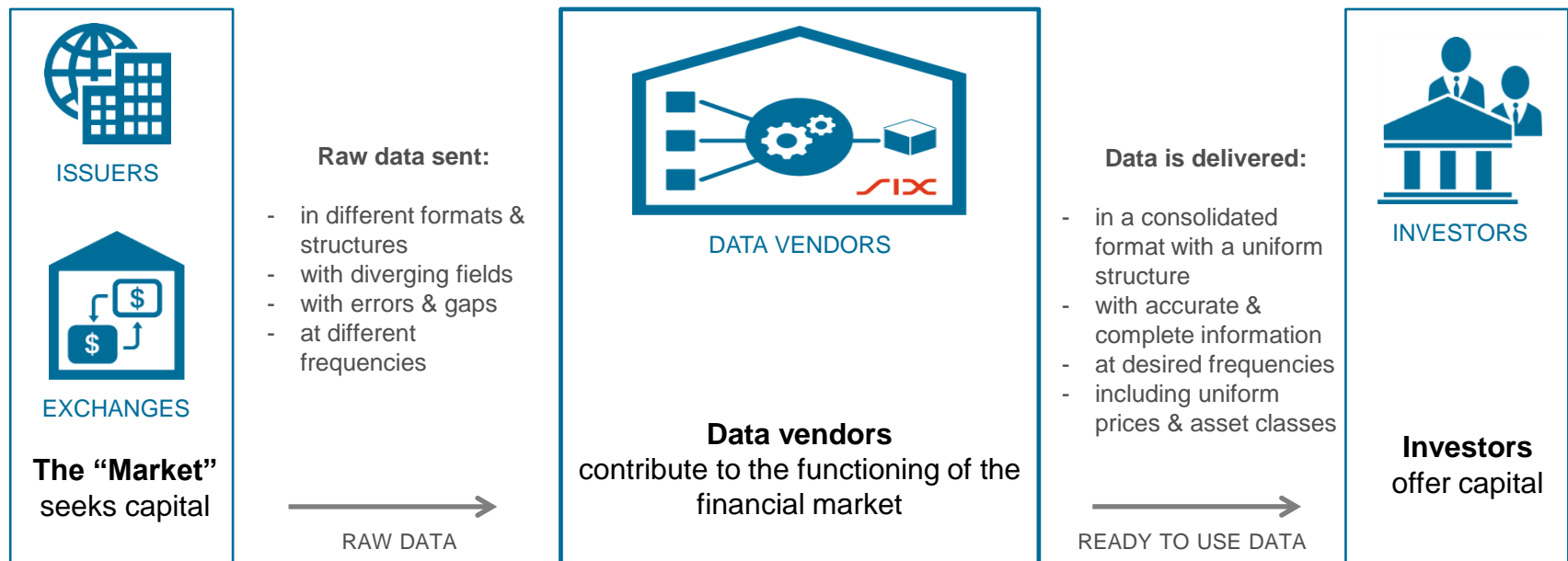
Data plausibility checks under time pressure

SIX Financial Information is a leading global provider of data services and solutions for financial and insurance firms, corporations and the media.

SIX Financial Information maintains a real-time database of global market data sourced from more than 1'500 securities exchanges and contributors. From individual wealth managers to major media organizations, our customer base use this information to gain a comprehensive view of global markets.
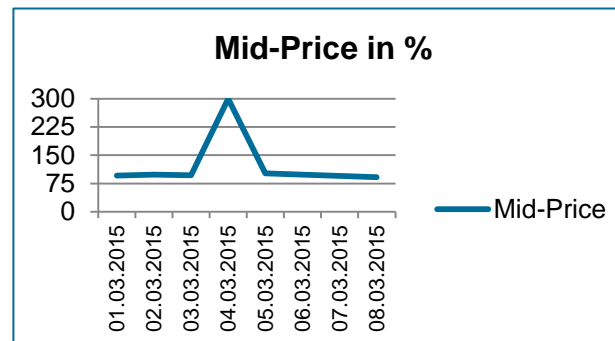
ISSUERS

EXCHANGES

The "Market"
seeks capital

RAW DATA

Raw data sent:

- in different formats & structures
- with diverging fields
- with errors & gaps
- at different frequencies

DATA VENDORS

Data vendors
contribute to the functioning of the financial market

Data is delivered:

- in a consolidated format with a uniform structure
- with accurate & complete information
- at desired frequencies
- including uniform prices & asset classes

READY TO USE DATA

INVESTORS

Investors
offer capital

/IX Financial Information

Data plausibility checks under time pressure

The financial markets are never standing still. SIX Financial Information gathers traded prices, order volumes, and other market data about trading activity worldwide, around the clock and from over 1'500 sources. In a highly automated process, SIX streams this data on a real-time basis to market participants (banks, investors, media), that use this real-time data for trading decisions, market monitoring, risk management and much more.

But occasionally data is received that does not match range of expected values. There can be sudden market disruptions, central bank decisions with large market influences, but also system failures, erroneous data entries, data format changes and other technical issues.
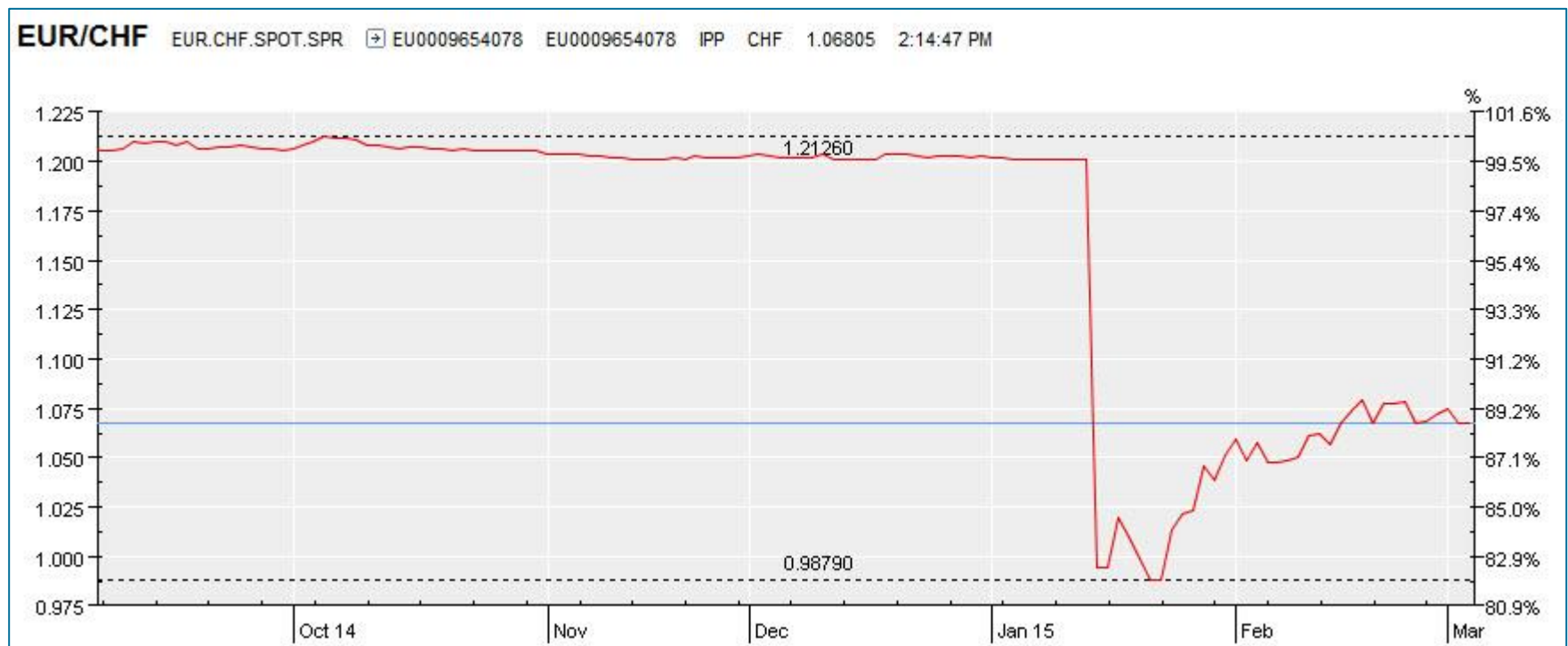
XS00045000456	**2.75% Example Bond 17**	
Date	Mid-Price	Calc.method
01.03.2015	95.751	%
02.03.2015	98.655	%
03.03.2015	96.551	%
04.03.2015	299.555	%
05.03.2015	101.551	%
06.03.2015	98.411	%
07.03.2015	95.325	%
08.03.2015	91.55	%

Mid-Price in %

Data plausibility checks under time pressure

SIX Data Monitoring team is quality-checking this continuous data stream for unexpected values (like a suddenly negative interest rate) and data outliers (like the drop of the EUR/CHF exchange rate from 1.20 to 1.02).

Data plausibility checks under time pressure

SIX Data Monitoring experts check the plausibility of such suspicious data using their knowledge about the financial markets and the continuously incoming information like

- **Directly related market data (e.g. EUR/CHF exchange rate vs. USD/CHF exchange rate)**

- **Related news (e.g. Swiss National Bank announcement)**

- **Related meta data (e.g. volatility, multiple sources etc.)**

- **Various further data and information**

Two goals are in conflict in this situation:

- **Quick Decision (is needed to minimise the interruption of the real-time data feed)**

- **Correct Decision (is needed to protect SIX' reputation for high quality data)**

Be part of the team and help to:

Achieving an optimal human-computer interaction for allowing or blocking the publication of real-time financial market data feeds that contain unexpected values.