

# DATA QUALITY DIMENSIONS

| Concept      | Definition   | Description   | Examples   |
|--------------|--|---|--|
| Accuracy     | A measurement of the veracity of data to its authoritative source  | Accuracy is a measurement of the precision of data. It can be measured against either original documents or authoritative sources and validated against defined business rules. | <ul style="list-style-type: none"> <li>Records that are wrong at a specified time (i.e. record with incorrect maturity date)</li> <li>Records that haven't been refreshed or updated</li> <li>Records at the wrong level of precision (i.e. prices that were originally quoted at three decimal places, but cut-off and stored at two decimal places)</li> </ul> |
| Completeness | A measurement of the availability of required data attributes  | Completeness measures the existence of required data attributes in the population of data records.  | <ul style="list-style-type: none"> <li>A missing ticker symbol, CUSIP, or other identifier</li> <li>A fixed income instrument record with a null coupon value</li> <li>A benchmark or index that is missing a dividend notice or stock split</li> <li>A record with missing attributes</li> </ul>  |
| Conformity   | A measurement of the alignment of content with the required standards  | Conformity measures how well the data aligns to internal, external or industry-wide standards.  | <ul style="list-style-type: none"> <li>Invalid ISO currency codes</li> <li>Violation of allowable values (i.e. state code for a country that doesn't have states)</li> <li>Inconsistent date formats</li> </ul>  |
| Consistency  | A measurement of compliance with required formats, values or definitions                                     | Consistency provides assurance that data values, formats and definitions in one population agree with those in another data population.   | <ul style="list-style-type: none"> <li>Not logical given parameters or rules (rationalization of coding schemes)</li> <li>Invalid data formats in some records in a feed</li> <li>Telephone numbers with commas vs. hyphens</li> <li>U.S. vs. European date formats</li> </ul>   |
| Coverage     | A measurement of the availability of required data records   | Coverage refers to the breadth, depth and availability of data that exists but is missing from a data provide.  | <ul style="list-style-type: none"> <li>A group of securities (i.e.: corporate bonds) not included in a vendor feed</li> <li>Quoted prices from an emerging market that are missing</li> <li>Legal entity and hierarchy data missing from a country or region</li> </ul>  |
| Timeliness   | A measurement of the degree to which data is both representative of current conditions and available for use | Timeliness is a measurement of how well content represents current market/business conditions as well as whether the data is functionally available when needed.                | <ul style="list-style-type: none"> <li>A file delivered too late for a business process or operation</li> <li>An issuance or corporate action not delivered when it was announced</li> <li>A credit rating change not updated on the day it was issued</li> <li>A new prospectus not given an official number from the national numbering agency</li> </ul>      |
| Uniqueness   | A measurement of the degree that no record or attribute is recorded more than once                           | Uniqueness refers to the singularity of records and or attributes. The objective is a single (unique) recording of data.  | <ul style="list-style-type: none"> <li>Two instances of the same security with different identifiers or spellings</li> <li>A preferred share represented as both an equity and debt object in the same database</li> </ul>   |