

Bank Note Circulation Dataset

Short description

The raw data provided by the Bank of Canada represents a subset of granular information captured from the entire lifecycle of Canadian bank notes. From birth-to-death each bank note has a life and a story to tell which is relevant for business operations, quality, security, distribution and long-term research to inform the future development of a next generation series of bank notes. As such, the data has been organized by:

- individual serial number
- denomination
- series (e.g., Polymer, Canadian Journey, Birds, Scenes, etc.)
- printed batch ID/lot
- date inspected (pre-issuance)
- new note shipments from location (e.g. MAOC – Montreal, TAOC – Toronto)
- region of Canada (new notes shipped to)
- financial institution (new notes shipped to) – NOTE: This data has been obfuscated for security reasons
- date processed (deposited from circulation)
- region of Canada (deposited from)
- financial institution (deposited from) – NOTE: This data has been obfuscated for security reasons
- Banknote Processing System (BPS) machine number
- fitness/quality assessment
- total value
- volume

Research questions

- Overall, how do bank notes circulate across Canada?
 - Any new insights using a time series view?
- Which regions and/or banks are net depositors or net withdrawers of bank notes by denomination?
- On average, how long do bank notes remain in inventory before issuance?
 - Inventory turnover?
 - By denomination?
- On average, how long do bank notes remain in circulation by denomination?
- Which Banknote Processing System (BPS) demonstrates a quality bias?
- Are there identifiable circulation patterns of Bank Notes across Canada by denomination?
- Does the dataset present evidence of seasonality or shocks in either the demand, replenishment or circulation of bank notes by denomination?
- What other patterns can be discerned from this raw dataset?

Targets

- Target date for dataset to be provided to you = Monday, January 18.
- Target formats = The data will be provided in an MS Access database and as a comma delimited text file to ensure the students can work with it in any program/application of their choosing.
- Metadata = A data dictionary will also be provided to supplement the short dataset description above – it will give more details about the structure of the data fields enabling the students to completely understand the data elements.