What security issue does the data speak to?
The existence of a large, anonymous, online marketplace creates incentives and facilitates for cyber criminals to illegally buy and sell items on cryptomarkets, thus resulting in the security issue of causing and maintaining a community of cyber criminals.

What would be the ideal metrics for security decision makers?

- Total turnover. If this is known to the security decision makers, they will gather information about the scope of the security issue, which can help with making decisions.
- Number of transactions. This is an addition to the previous metric, but if the number of transactions is known as well, the decision makers can more accurately determine the size of each transaction.
- Top 10 shipping countries allows the security decision makers to target the cyber criminals more accurately, since the country of the transaction is known.
- Product categories allows for further insight in the criminal organization, since the security decision makers will know the problem in more detail and can thus make better decisions on the required actions.
- Links of the criminal accounts to other profiles that exist on the internet. If the decision makers know more about the behaviour of these criminals, better decisions and predictions can be made.

What are the metrics that exist in practice?
In practice, there is a database containing three tables; item, price and feedback. This database provides us with several interesting columns about the transactions of the Silkroad 1 marketplace. The tables and corresponding columns are shown below.

tablename	**columns**
item	item_id | seller | ships_to | ships_from | category | first_seen | last_seen
price	item_id | price | time
feedback	item_id | feedback_time | feedback_rating | feedback_hash

A lot of metrics can be derived from this database, which we will now describe.

A definition of the metrics you can design from the dataset

- Look at the progression of the price of a certain product. (TABLE: price)
- An approximation of the quality of the products by looking at the average feedback rating. (TABLE: feedback)
- Top 10 shipping countries.
- By looking at the last_seen field in the table 'item', we can determine if the product can be trusted (e.g. it it was last seen by the crawler 2 years ago, the product is probably not being sold anymore).

An evaluation of the the metrics you have defined. This should include graphical representations of the metrics (e.g., histograms, scatter plots, time series, bar charts

- For determining the progression of the price, a time series graph could be made showing the price of the item over time. With this information, the security decision makers can keep an eye on certain products that go up in price, and investigate these products further.