Table 1 – Typical list of the inputs used in the analytical models developed to determine goods classification and value

Input	Reason for Usage
Declaration date	Helps adjust pricing algorithms for goods whose price depreciates rapidly over time.
Declared HS code (8+ digits)	Provides an indication of the goods type, and allows the algorithm to determine the taxes and duties that would be applied to the CIF value.
Goods description	This is the commercial description of the goods as provided by the importer; not the description of the tariff code. A natural language processing accurately parses the goods description (in any language). If a commodity description is especially poor or ambiguous, the model can flag this for review by declarant (even before the declaration has been lodged!).
Declared CIF value and currency	Used as one indication of the declared price per unit of measure. Also ensures that accurate currency conversion occurs if required, so that prices are compared in the national currency.
Routing information (country of origin, port of lading and discharge)	Used to determine the declared country of origin, and if the goods have been transshipped through known ports or countries with weak security. This information can sometimes act as an indicator for invoicing fraud.
Exporter's name, address and country	Used to link goods to exporters. Based on the exporter's name, address and country, the models have enough historical information to determine the set of valid tariff codes that are exported by nearly all companies worldwide; even if the goods themselves are poorly described. The models will also determine the typical export price of specific goods from the exporter and compare it to multiple importers in the country of import, based over time on a pricing decay curve that varies depending on the commodity type.
Consignee's name, address and country	Used to link historical importations of goods to the same or similar consignees. It's not uncommon for Customs to have multiple tax numbers for a single entity, or struggle to map parent/child relationships between related companies. See note related to TTEK's global trade database for more information about how this information is used.
The quantity and the unit of measure	It is common for units of measure to be used inconsistently, even though this should follow the global standard to HS 6 level. To ensure one is comparing 'apples with apples', a unit of measure stated on the declaration will be used, even if it is incorrect for the type of goods. The anomaly will be flagged so that a Customs agency can resolve any anomalies in its electronic tariff.
The weight of the shipment and the unit of weight	Particularly in relation to commodity purchases, or those commodities measured in kilos or litres; there is a strong relationship between the price and the weight. Anomalies are identified here. Particularly for those goods where specific duties are applied (based on quantity), the ratio between the quantity and the net weight will be compared with historical imports to ensure they fall within acceptable bounds.
The volume of the shipment and the unit of volume	For certain commodities, there is a relationship between the volume of the package and the price (and weight). The price/weight, price/volume and weight/volume ratio for all individually identifiable goods are looked at to identify significant deviations from the norm that may indicate a valuation or quantification issue.