Combating the Over/Under-Invoicing Menace: How Eastnets AI Services Transform Trade-Based Money Laundering Detection

The Hidden Threat in International Trade

Detecting over- or under-invoicing as a money laundering tactic remains one of the most challenging problems in financial crime prevention. The fundamental difficulty lies in determining the true commercial value of goods—a figure that legitimately varies based on market conditions, quality specifications, and supplier agreements.

The inherent complexities of international trade make holistic monitoring of pricing movements across geographies exceptionally difficult. Traditional Harmonized System (HS) code-based price references prove far too coarse, offering only broad averages that leave wide margins for legitimate variation. For example, "men's cotton shirts" may be classified under a single code without accounting for brand, grade, specification, or legitimate price dispersion.

Criminals exploit this gap by manipulating prices within acceptable HS-based ranges, making suspicious transactions appear commercially plausible. As a result, regulators and financial institutions struggle to distinguish genuine commercial variability from deliberate mispricing.

The Regulatory Imperative

The Financial Action Task Force (FATF), industry bodies such as BAFT, and various regulatory groups have issued strong recommendations prescribing stricter control measures to monitor and address pricing-based laundering activities.

The Limitations of Current Approaches

Price checking today is performed using a variety of techniques across institutions. Some rely on external data sources that provide HS-code-based price ranges, while others depend on simple web searches to gauge the market value of goods. Many institutions also combine historical transaction data with manual web research, requiring analysts to manually interpret information at multiple stages. These fragmented and inconsistent methods often lead to inefficiency, inaccuracy, and the following limitations:

- Subjectivity in price assessments
- Inconsistent application of standards
- Limited scalability for high transaction volumes
- Inability to process complex, multi-factor pricing variables
- Variability in goods descriptions—for example, "transmission" in one transaction may refer to a gearbox, while in another it may refer to a different component entirely. This creates misalignment when HS codes are missing or inconsistently applied.
- Performance challenges—deriving accurate pricing by manually examining historical transactions and documents can significantly slow down the process.

The AI Advantage

Advanced AI and Large Language Model (LLM) systems can analyze detailed product descriptions—including measuring units, currency, country of origin, source country, date of purchase, type, brand, model (and year model if applicable), material specifications, manufacturer history, trade routes, and real-time market data—to infer far more accurate expected price ranges. This level of granularity is beyond what static HS-code pricing can deliver.

Modern laundering schemes deliberately mimic normal market fluctuations. To combat this, AI must provide contextual reasoning—shifting trade-based AML from simple rules to intelligence-driven, probabilistic assessment.

Eastnets SafeTrade: The AI-Powered TBFC Solution

SafeTrade introduces a bundled and white-labeled AI service that enables customers to use AI-driven capabilities without requiring a direct subscription to an external AI provider. This approach reduces customer due-diligence requirements, simplifies invoicing, and minimizes data security and installation overhead.

The AI service operates as a backend component within SafeTrade and is currently used to support price range screening for goods in trade finance deals. The service validates the minimum and maximum prices received in a trade deal, in the provided currency, by comparing them against actual market prices retrieved online via a search engine.

How the AI Engine Works

Eastnets SafeTrade leverages Generative AI to:

1. Interpret unstructured, natural-language descriptions of goods with human-like comprehension.
2. Categorize goods accurately by assigning the correct HS Code/SITC. The system identifies the relevant SITC/HS code based on provided descriptions and determines the most accurate pricing from multiple sources, including documents and messages exchanged during trade transactions.
3. Estimate accurate market values for trade transactions based on multiple contextual factors, including but not limited to country of origin and source country, and return this intelligence to the SafeTrade system. It can also verify whether goods are genuine or counterfeited while deriving the price according to the accurate description.

The pricing information received from the AI service is then compared against pre-configured threshold levels to determine whether goods are over- or underpriced. The system can also be enhanced to accommodate historical trade data and feedback loops, continuously refining accuracy in goods pricing determination.

When enabled, these rules allow SafeTrade to screen goods prices and generate detections when price values fall outside the expected ranges, enhancing trade-based risk detection while keeping all AI processing fully managed within the SafeTrade platform.

Conclusion

As trade-based money laundering schemes grow increasingly sophisticated, traditional rule-based detection methods are no longer sufficient. Eastnets' AI-powered solutions provide the contextual intelligence, granular analysis, and adaptive learning capabilities which can be extended to improve overall TBFC capabilities by leveraging the latest AI technology. This helps our customers stay ahead of evolving threats—transforming trade finance compliance from reactive monitoring to proactive, intelligence-driven protection.