

An aerial photograph of a port at night, showing a large gantry crane on the left, a road with a truck and a car, and a vast area filled with stacked shipping containers in various colors. A large yellow trapezoidal shape is overlaid on the right side of the image, containing the title and subtitle text.

# Tricks of the trade

How to combat trade-based  
financial crimes



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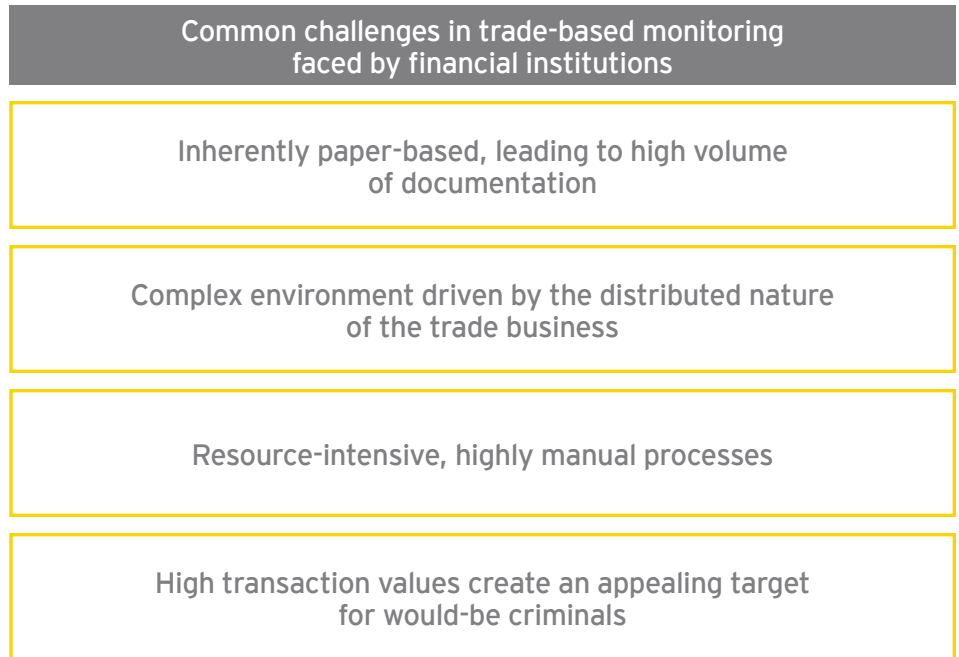
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# Banks are facing challenges in trade finance programs

The trade finance industry worldwide is estimated at US\$7.6 trillion,<sup>1</sup> with an expected compounded annual growth rate of 3.29% over the next three years.<sup>2</sup> It is estimated that financial crimes, such as trade-based money laundering (TBML) – including funds associated with arms trafficking, drug smuggling, public corruption and terrorism – exceeds billions of dollars annually and is growing each year (especially in emerging markets).<sup>3</sup> Criminals are taking advantage of business complexity and the heavy reliance on documentation to facilitate trade transactions, either forging documents to defraud counter parties or utilizing shell companies to engage in money laundering activities. Despite advances in criminal activity, trade finance products have lagged behind other banking industry sectors when it comes to surveillance and detection of suspicious activity.

Driven in part by global differences in processes and customs requirements, large transaction volumes and the unstructured nature of documentation associated with the trade finance process, compliance monitoring (e.g., fraud, AML, sanctions, boycotts, non-proliferation, etc.) is mainly manual, making detection of suspicious activity a challenge. Recent regulatory



actions against major global banks indicate that regulatory agencies are honing in on trade finance and banks should be prepared to enhance their controls to prevent financial crimes through trade products.

Recent technology developments may enable institutions to be more effective at collecting, digitizing and analyzing the vast quantities of data required to monitor

for trade-based financial crimes, which will allow institutions to improve their overall risk posture. This paper will explore how technology and analytics will enable banks to implement more advanced and automated risk controls around their trade finance products.

1 The ICC Global Survey on Trade and Finance, International Chamber of Commerce, September 2015.

2 Global Trade Finance Market 2015-2019, Technavio, May 2015.

3 2015 International Narcotics Control Strategy Report, US Department of State, March 2015.

# Advanced Analytics can help manage Trade Finance Risk

With a myriad of complex red flags to detect buried within unstructured documentation, it is more important than ever for financial institutions to have the right resources and technologies in place to detect suspicious activity effectively and efficiently. Moreover, the growing global trade landscape requires financial institutions to be flexible enough to effectively scale and adapt to escalating regulatory requirements and evolving financial crime tactics. Advanced analytics will give financial institutions the flexibility they need to conduct comprehensive, cost-effective and scalable monitoring of all international trade deals.

## Developing an advanced analytics solution

The current trend towards digitizing the overall business of trade finance enables an analytics driven approach to the risk and compliance monitoring process. To fully utilize digitization and enhance the monitoring of trade finance activity, financial institutions should employ data

analytics and machine learning techniques, in order to augment, or in some cases replace, their existing monitoring practices.

An advanced analytics approach targets improvement across the following areas:

1. **Improved risk coverage** – Analytics can provide a view of risks across the full lifecycle of a trade transaction and across the network of related parties, compared to manual reviews that are focused on an individual transaction or event.
2. **Global speed and consistency** – Automated, analytic driven processes across a global business will facilitate standardized and consistent decision-making and reduce the likelihood of human error.
3. **Better decisions** – Risk based alerting vastly decreases the false positive rate of alerted transactions while automated identification of red flags improves risk coverage. Resources will dedicate time and focus effort on trade deals with significant risk.

## Recent trade-based financial crimes

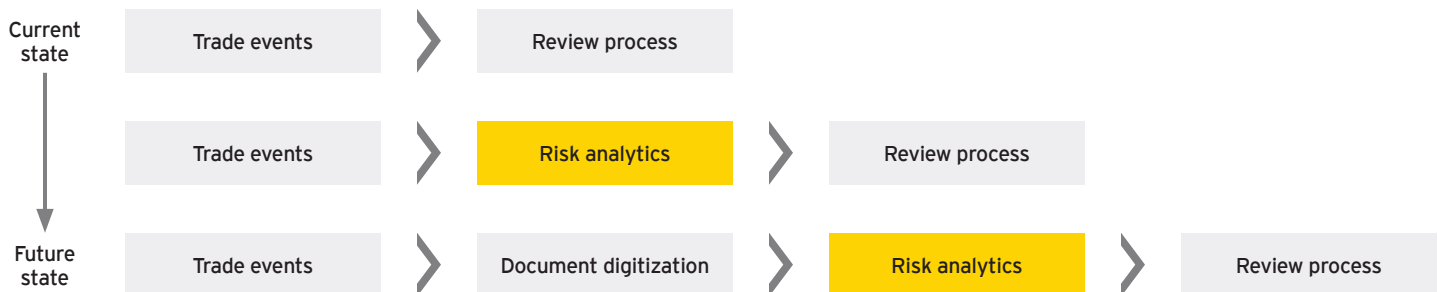
### Lebanese Canadian Bank

Financial Crimes Enforcement Network (FinCEN) identified a money laundering scheme in which drug smugglers laundered approximately US\$200 million per month through a Lebanese bank. The scheme used drug proceeds to purchase American cars, which were shipped across West Africa. Funds from the car sale were remitted back to the criminal accounts in Lebanon.

### Bank of Baroda

The Central Bureau of Investigation uncovered a scheme at the bank where 59 account holders in the name of fake companies conducted almost US\$1bn in illicit activity under the appearance of rice and cashew shipments to partners in the Hong Kong and United Arab Emirates.

Figure 1. Roadmap to a future-state trade monitoring program using advanced analytics





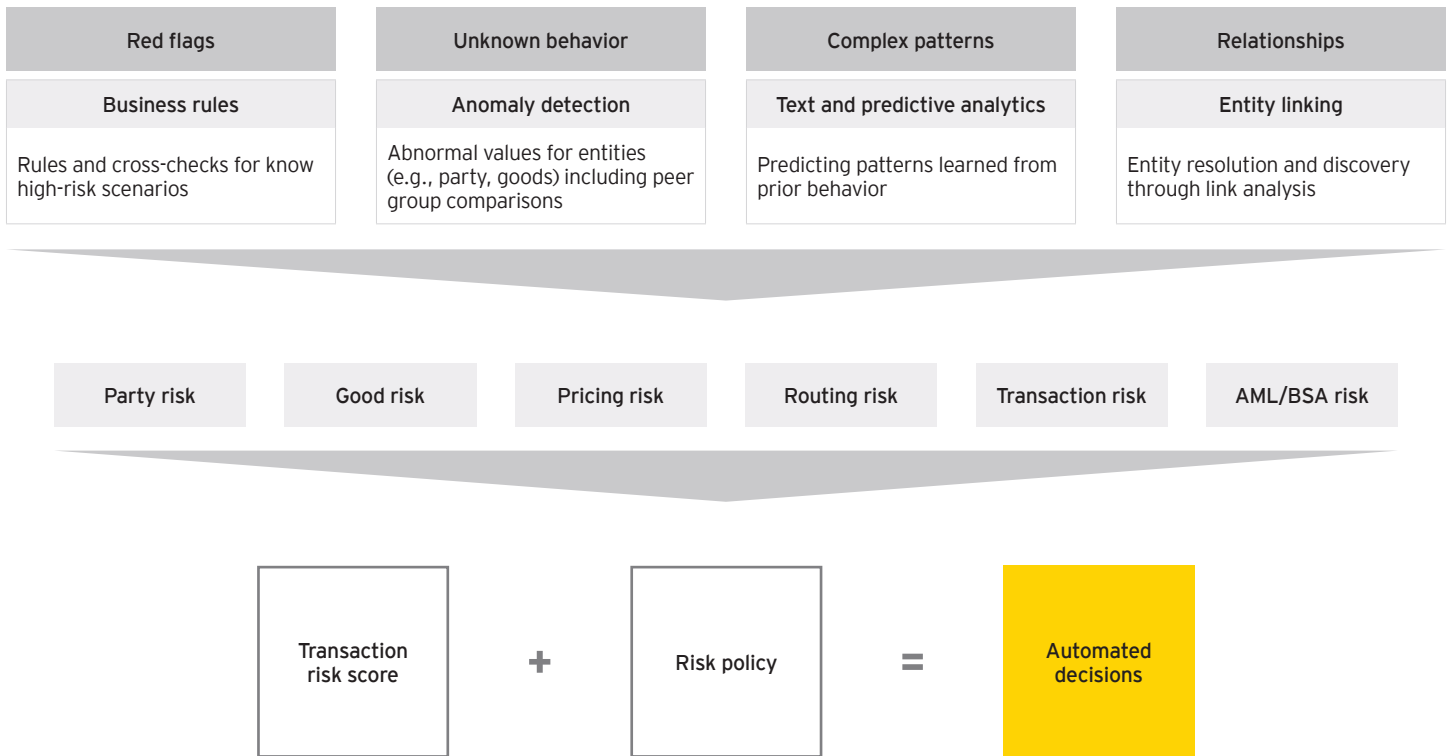
# An advanced analytics solution introduces layers of risk-based detection

In an environment where bad actors are developing complex money laundering and fraud scheme, financial institutions are in need of advanced monitoring capabilities to detect illicit tactics. A future

state trade finance monitoring program will utilize advanced analytics to identify red flags, unknown behavior, complex patterns, and relationships. For further risk-based refinement of monitoring, a risk

scoring model combined with compliance policy can drive automated and improved decisions through the three level process highlighted in figure 2:

Figure 2. Conceptual design of an analytics and risk based monitoring solution



## Analyze structured and unstructured data for enhanced detection capabilities

Digitization of paper documents allow financial institutions to apply advanced text analytics to quickly analyze data for risk within parties, goods, geographies and other important risk categories.

Advanced analytics capabilities such as entity resolution, inclusion of external data and an ability to learn based on historical activity have the simultaneous effect of decreasing manual analysis efforts while increasing comprehensive risk coverage. Data analyzed by technology-enabled tools, rather than a human being will improve the probability that advanced money laundering evasion tactics will be captured and escalated. Once hidden relationships of unlikely related parties can now be uncovered through extensive network analysis and use of external data such as beneficial ownership. Along with more comprehensive, computer-enabled coverage of risks, compliance review process times are also drastically reduced. Document-heavy transactions which required human intervention to review can now be automated at high speeds.

## Automate red-flag detection

Known industry red flags combined with internal historical productivity data will allow for analytics to be tailored to capture truly high-risk activity. High-priority red flags, such as high-risk countries, dual use/military goods or boycott language, can be identified by employing text analytics and advanced anomaly detection algorithms.

## Implement a risk-scoring model to reduce false positives

The data obtained from the detection layer builds the foundation for a risk-based monitoring approach, where risk factors are scored systematically and transactions are assigned a risk score that determines the level of review required. A risk-based approach allows banks to focus on truly high-risk transactions while closing out standard, well-understood transactions by identifying mitigating factors that could explain the activity that initially looked suspicious. For example, compliance reviews for transactions that regularly occur between known relationships in normal volumes and values for their profiles can be bypassed to streamline the remaining transaction

process. Consequently, false positives are reduced, investigations are more targeted, and overall transaction processing time is improved.

## Route alerts to appropriate level of review based on risk score identified

By layering multiple risk and compliance policy decisions to inform and amend the algorithmic components of the solution, decisions that were previously made as part of a manual process can be automated to efficiently route transactions to the appropriate level of review.

Subsequent development of the automated process can lead to trend analysis and a continuous feedback loop from the system of historical alerts, which will facilitate more accurate decision-making and categorization of individual events or transactions. These features will not only reduce the timing of each individual review, but result in an improved and streamlined process.

Figure 3. Using text analytics to identify red flags and make automated decisions



# Realizing risk benefits from improved monitoring

Most financial institutions face significant challenges in achieving appropriate levels of risk coverage for their trade transactions. Increased regulatory scrutiny coupled with growing global trade volumes make it crucial for banks to leverage advances in technology and analytics to keep up with the trade environment.

A mature analytics solution will employ robust analytics processes and technology coupled with a comprehensive view of risk policy factors to provide an institution with

improved risk outcomes at greater levels of speed and consistency. In a mature process, it is feasible for financial institutions to not only adequately monitor against potentially suspicious activity, but to also improve operational processes, reducing false positives and accelerating the decision-making process.

Advanced analytics are a key factor for financial institution's seeking to keep pace with criminal elements in the trade finance business.

## Realize business benefits from improved monitoring

- ▶ Studies indicate up to 15% immediate increases in business growth can be accomplished with advanced analytics processing.
- ▶ Identify connections between non-client parties to deliver previously missed cross selling opportunities.
- ▶ Utilize analytics to better understand clients businesses leading to better service.

## Who we are

We help our clients as they work to fulfill their regulatory and compliance requirements by providing services to meet their immediate needs and their long-term goals. Specifically, we develop technology architecture and program road maps, gather business requirements, assist with vendor selections, develop functionality specifications, and assist in system implementation, testing and quality assurance.

Our anti-money laundering (AML) technology service offerings cover a broad range of regulation and products, including:

- ▶ Transaction monitoring
- ▶ Optimization and model validation
- ▶ Technology strategy
- ▶ Know your customer (KYC)/enhanced due diligence (EDD)
- ▶ Watchlist/sanctions
- ▶ Case management
- ▶ Trade finance

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