Analysing Cross-Border Flows involving Commonwealth of Independent States (CIS) jurisdictions

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Anjishnu Bandyopadhyay[1] and Max Heywood

Abstract

In September 2023 the International Monetary Fund (IMF) published a technical assistance report on the Nordic-Baltic region that included an estimate of "unexplained" cross-border financial flows to third countries.

This paper adapts and extends the IMF approach to Commonwealth of Independent States (CIS) countries. Drawing on a proprietary dataset of cross-border transactions for 2022 and 2023, it applies a threshold-based approach based on trade, GDP and geographic distance to identify cross-border flows which could merit further investigation. In addition, standard indicators of money laundering risk such as round amount transactions and non-resident customers are applied to jurisdictions with flows that breach the pre-established thresholds.

Five countries - Russia, Kazakhstan, Kyrgyzstan, Turkmenistan and Azerbaijan - have cross-border flows in the sample that fall outside the thresholds. Relevant counterparty jurisdictions linked to these flows such as Cyprus, Ireland and Latvia are also identified.

In line with the IMF's suggestion for national authorities in Nordic-Baltic countries, the findings in this paper support the recommendation that national AML authorities should produce their own customised, data-driven lists of high-risk countries.

Introduction

In September 2023 the International Monetary Fund (IMF) published a technical assistance report on the Nordic-Baltic region that included an estimate of "unexplained" cross-border financial flows. By comparing aggregate cross-border payments to a set of estimators of underlying economic activity or "economic fundamentals" related to the countries assessed, the IMF report identifies cross-border payment flows that are above predetermined thresholds and classifies these as "unexplained".[2]

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[1] Corresponding author, anjishnu@elucidate.co
[2] IMF: "Nordic-Baltic Regional Report: Technical Assistance Report-Nordic-Baltic Technical Assistance Project Financial Flows Analysis, AML/CFT Supervision, and Financial Stability", September 2023 https://www.imf.org/en/Publications/CR/Issues/2023/09/01/Nordic-Baltic-Regional-Report-Technical-Assistance-Report-Nordic-Baltic-Technical-538762?cid=bl-com-1EUREA2023003

The challenges of assessing money laundering risk at the jurisdictional level have been extensively explored in the literature. In particular, analysis and critique have focused on the available lists of countries categorised as high-risk by single institutions, such as those periodically produced and updated by the Financial Action Task Force (FATF) and the European Commission (EC).

As the briefest of summaries of these debates, the FATF black and grey lists have been critiqued due to their potential for geo-political bias and their limited empirical basis;[3] the questionable evidence of impact when a country is included on the FATF lists and the mechanism through which that mechanism occurs;[4] and their limited overall legitimacy under international law,[5] among others. The European Union list has also been identified as driven by political objectives,[6] and critiqued on grounds of methodological bias and vulnerability to political influence.[7]

It is in this context that the findings of the recently published IMF analysis have significant implications, in particular for the way in which national authorities and financial institutions usually approach higher-risk ML/TF third party jurisdictions.

Referring to the FATF grey list and the European Commission (EC) higher-risk third country list, the IMF notes that Nordic-Baltic countries "maintain minimal flows with the countries in these higher risk jurisdiction lists".[8]

Conversely, the financial centres flagged by the IMF's empirical analysis as linked to "unexplained" cross-border flows were not included on the FATF and EC high-risk lists at the time of the assessment. For example, the IMF report identifies the UK, a non-listed jurisdiction, as the main counterparty for insufficiently explained flows for countries in the Nordic-Baltic region. Similarly, non-listed Luxembourg and Ireland are flagged as jurisdictions for which financial flows were "mostly insufficiently explained by the fundamentals".

[3] Riccardi, Michele: "Beyond blacklists: alternative approaches to rating countries at high risk of money laundering", 2024. https://publicatt.unicatt.it/handle/10807/224292
[4] Case-Ruchala, Devin and Nance, Mark: "FATF blacklists don't work the way you think they do", 2020 https://bahamasamlconference.centralbankbahamas.com/assets/images/pdf/2021/Evaluating%20effects%20of%20FATF%20listing%20-%20Case-Ruchala%20and%20Nance.pdf
[5] Otudor, Lovina E and Bagheri, Mahmood: "Legitimacy of power exercised by FATF under international law", 2023. https://www.emerald.com/insight/content/doi/10.1108/JFC-09-2023-0239/full/html
[6] Arel-Bundock, Vincent et al: "The EU and the Politics of Blacklisting Tax Havens", 2023. https://www.urpp-equality.uzh.ch/dam/jcr:86003873-1228-461c-8c56-1c8f79486277/27_Arel-bundock_crasnic_romgens_roland_blacklist.pdf
[7] Moskowitz, Eli: "EU's Updated Tax Haven List Draws Criticism", 2021. https://www.occrp.org/en/daily/13892-eu-s-updated-tax-haven-blacklist-draws-criticism
[8] IMF, op cit.

This paper adapts and extends the IMF approach to assessing high risk cross-border payments to cover a sample of 11 countries in the Commonwealth of Independent States (CIS). Drawing on data from a proprietary dataset, we are able to identify aggregate bilateral cross-border flows which appear insufficiently explained by geographic and economic factors and could merit further investigation from an academic and regulatory perspective.

Section 2 below introduces the dataset and methodology used for this paper. Section 3 presents the main findings for CIS countries and relevant third countries. Section 4 concludes and makes recommendations.

2. Dataset and methodology

The data for this paper is drawn from a sample of transactions provided by a network of banks with extensive correspondent banking relationships to a financial crime risk assessment agency, in order to independently assess the network's exposure to financial crime and sanctions risk.[9]

Rather than focusing on the onboarding processes for new clients, this type of analysis assesses banks' risk exposure through its existing customer portfolio, for example identifying instances where previous compliance processes may have failed.

The dataset for this paper consists of a subset of cross-border transactions where either the country of the originator financial institution (FI) or the country of the financial institution of the beneficiary counterparty is one of the CIS nation states. The dataset consists of 1844325 transactions that occurred between January 2022 and October 2023.

The financial institutions in our sample cover a range of sectors in each country including banks operating in both retail and corporate banking. Due to privacy and confidentiality limitations, it is not possible to carry out detailed analysis at the individual transaction level.

In the IMF report for the Nordic-Baltic countries cited above, the "economic fundamentals" analysis is based on the value of exports and imports of goods and services as well as portfolio and direct investment inflows and outflows. Financial flows are considered "sufficiently explained" if the ratio of economic fundamentals value to the payments value (inflows and outflows separately) is higher than a discretionary threshold of 30 percent or if the overall ratio of economic linkages' value to payments value is higher than 75 percent.[10]

Given limitations in public data availability to fully reproduce the IMF analysis, in particular as regards bilateral investment flows between countries, our adapted approach for this paper

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[9] See elucidate.co
[10] IMF, op cit

draws on the gravity model to determine thresholds based on trade, GDP and geographic distance.

A number of researchers in the AML field have adapted the gravity model, originally developed to produce estimates of trade flows between jurisdictions - usually as a function of the size of their respective economies and the distance between them - to apply to money laundering. According to the gravity model the amount of trade between countries is estimated to be proportional to the GDP of the trade partners and inversely proportional to the distance among the partners.

Walker and Unger (2009) develop and apply the "Walker gravity model" to estimates of money laundering.[11] Ferwerda et al (2020) apply simulations based on a gravity model to a dataset of transactions from the Netherlands where there are suspicions of money laundering, in order to identify three types of flows: laundering of domestic crime proceeds; international investment of dirty money and regular, non-criminal financial flows.[12] Balani et al apply a gravity model to trade-based money laundering in select Asian countries.[13]

The approach developed for this paper takes into account three major factors: trade; GDP and geographic distance. The International Trade Statistics published by the United Nations is used to source bilateral trade data for the CIS nation states; GDP data is from the World Bank. To identify transaction outflows and inflows unexplained by "economic fundamentals" we set thresholds (see below) based on the GDP of the export or import partner and the distance of the trading partner with the CIS nation state for which the transaction flow is being assessed.

For each CIS nation state, we assess the outflow and inflow transactions for 2022 and 2023 separately. "Outflow" means that the originator FI is in the CIS state for which the transaction flows are being assessed and "inflow" means that the beneficiary FI is in the CIS state for which the transaction flows are being assessed.

The explainability thresholds for this paper were set as follows:

- Value of transactions is more than 5% of the transactions to or from the CIS state of study in our dataset for the given type of transaction
- Counterparty is not a top 3 trade partner (export partner for inflows and import partner for outflows)

[11] Walker, John and Unger, Brigitte: "Measuring Global Money Laundering: "The Walker Gravity Model"". http://www2.econ.uu.nl/users/unger/publications/RLE2.pdf
[12] Ferwerda, Joras et al: "Estimating money laundering flows with a gravity model-based simulation", 2020. https://www.nature.com/articles/s41598-020-75653-x
[13] Balani, Henri et al: "Trade Based Money Laundering in Select Asian Economies: A Comparative Approach Using the Gravity Model".
https://swer.wtamu.edu/sites/default/files/Data/Lewer.pdf

- GDP of non-CIS partner jurisdiction < 1000 billion US$, in order to exclude flows to major economies (see Table 1)
- Distance between the two jurisdictions is greater than 3000 km.

Table 1 : Top outflow destinations from CIS nation states in 2023 and 2022 in the dataset used for this paper

CIS nation state	Top "outflow" destination in sample in 2023	Top "outflow"destination in sample in 2022
Armenia	United States	United States
Azerbaijan	Spain	United States
Belarus	China	Russia
Kazakhstan	South Korea	Czech Republic
Kyrgyzstan	Turkey	Turkey
Moldova	Romania	Romania
Tajikistan	Turkey	Turkey
Turkmenistan	Azerbaijan	Czech Republic
Ukraine	Belgium	United States
Uzbekistan	Czech Republic	Czech Republic
Russia	South Korea	Germany

In addition, where flows between countries have been identified that breach these explainability thresholds, we apply and present two widely used indicators of money laundering risk: the percentage of transactions that are round amounts, and the percentage of transactions involving non-resident customers.

Section 3. Main findings

Applying the trade, GDP and distance thresholds set out in the section above, we find at least five countries for which cross-border inflows or outflows in the sample could merit further investigation.

In the case of **Russia**, in our sample 17% of inbound transactions in 2023 originated in Cyprus, while 9% originated from Turkey. In addition, 20% of the inbound transactions from Cyprus to Russia were round amounts i.e. the transaction amount in the currency of transaction was a multiple of 1000.

In 2023, 11% of inflows to **Kazakhstan** in the sample originated from the Czech Republic, 7% of which were round amounts. Meanwhile, outflows to Cyprus were 5% of total outflows from Kazakhstan in the sample in 2022, and 9% in 2023.

In 2022, 40% of total outflows from **Kyrgyzstan** in the sample were directed towards Turkey. This percentage increased to 52% in 2023.

8% of 2022 total outflows from **Turkmenistan** in the sample went to Latvia.

In 2022, 15% of total inflows to **Azerbaijan** in the sample came from Ireland, falling to 9% in 2023. In addition, a significant percentage of non-resident customers was found. For 2022, 62% of the transactions to Azerbaijan originating in Ireland were from non-resident customers (i.e. customers not based in Ireland but using an Irish financial institution to make the transaction). This percentage increases to 74% in 2023.

Section 4. Conclusions

The IMF's September 2023 technical assistance report noted that authorities in Nordic-Baltic countries currently apply the FATF grey list, the European Commission high-risk third country list, and non-cooperative tax jurisdictions lists to identify higher-risk countries.

Based on the empirical finding noted above that the Nordic-Baltic countries "maintain minimal flows with the countries in these higher risk jurisdiction lists", the IMF suggested authorities "could produce a more robust risk analysis if they develop their own understanding of their cross-border and non-resident activity risks, and add a focus on their own customized list of high-risk jurisdictions". This would allow authorities to develop "their own understanding of higher-risk countries reflecting country-specific ML/TF threats".

From a policy perspective, the findings in our paper suggest that this IMF recommendation to develop a customised list of high-risk jurisdictions could in fact be extended to authorities and financial institutions in all countries.

Applying a threshold-based approach drawing on economic fundamentals, or a gravity-model type analysis can flag jurisdictions where further analysis of transactional patterns and potential suspicious activity is merited.

For example, once third countries with insufficiently explained transactions are identified, national authorities charged with collecting and analysing Suspicious Activity Reports (SARs) could select SARs linked to those countries to conduct pattern or relationship analyses. Financial institutions that have processed transactions linked to these jurisdictions could receive additional supervisory attention e.g. via offsite or on-site visits.

As seen in the case of transactions from Ireland to Azerbaijan above, where a significant percentage of inflows originating from a third country are linked to customers not residing in that third country, this could also be of potential interest to national tax authorities.

It could be argued that moving away from single-source, standardised lists such as FATF or EU lists would in the short-term create additional complexity in the risk management processes of national authorities and financial institutions. In particular, the production and maintenance of multiple high-risk country lists would require greater responsiveness and data processing capacity from regulatory and compliance systems.

At the same time, the findings in this paper and previous research suggest that from a risk management perspective the FATF and EU lists are of limited practical value in identifying jurisdictional-level sources of risk. A more empirically driven approach to cross-border ML/TF risk at the jurisdictional level would contribute to more appropriately targeted focus of limited regulatory and compliance resources, improving overall systemic effectiveness.

Given technological developments in data analytics, in future a shift to real or near-time regulatory monitoring of aggregate flows, for example drawing on SWIFT traffic could also be of value.