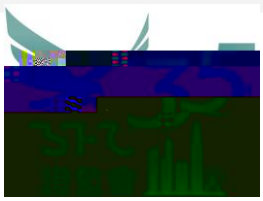

# Report on the Adoption of Regtech for Anti-Money Laundering and Counter-Financing of Terrorism

November 2024

8. current state of Regtech adoption in the industry. This includes their key drivers, challenges and considerations throughout the adoption processes. The report also provides illustrative use cases of Regtech solutions that are commonly adopted in major AML/CFT processes by the industry. Our aim is to provide industry practitioners with practical insights to help them adopt Regtech solutions in an effective manner.

9. While recognising the benefits of Regtech adoption, LCs are also reminded to implement Regtech solutions in a responsible manner, considering four key principles. These include ensuring (a) adequate governance and accountability by senior management, (b) ongoing monitoring of Regtech solutions, including AI models, (c) effective data protection and cybersecurity measures for customer and transaction data, and (d) effective management of any risks posed by external vendors.

10. It is important to note that there are no universally applicable Regtech solutions in operations, the decision on whether and how to adopt Regtech should be proportionate, taking into account their unique circumstances. To ensure effective adoption, LCs are encouraged to assess their needs and capabilities, as well as potential costs and benefits of adopting Regtech in the AML/CFT processes.

11. LCs are also reminded that Regtech adoption is not an all or nothing approach but

## II. Introduction

14. Financial crime is getting increasingly sophisticated. Criminals are utilising more advanced technologies and techniques to commit fraud and launder money. Conventional manual approaches in detecting and preventing money laundering and related predicate offences are becoming less effective.

15. LCs are dealing with an increasing volume of data that encompasses indicators of risk attributes, which often go unnoticed by conventional monitoring methods. Regtech solutions help automate processes and analyse a large volume of data rapidly and consistently, enabling LCs to identify potential ML/TF risks more promptly and accurately.

16. In recent years, the Financial Action Task Force has been actively promoting the awareness of leveraging new and existing technology-based solutions for AML/CFT processes. It encourages the responsible adoption of Regtech to ensure the effective implementation of AML/CFT measures.

17. The SFC has undertaken a number of initiatives to monitor the developments and progress of Regtech adoption, including focus group discussions held in 2020 and 2024, along with the fact-finding, perception and Regtech surveys conducted over the years. These form part of the Hong Kong ML/TF risk assessment (HRA) exercises to understand



new

# III. The SFC's observations

## A. Background

20. During the second HRA, the SFC obtained an overview of whether and how LCs have adopted Regtech to assist their compliance with the AML/CFT requirements. As set out in the HRA report published in 2022, it was observed that larger-sized LCs, particularly brokerages with larger client bases and a high volume of transactions, had a higher level of Regtech adoption.

21. From its ongoing engagement with the industry in recent years, the SFC observed that LCs have made considerable progress in Regtech adoption. In particular, there are notable advancements in both the coverage of AML/CFT processes and the types of underlying technologies used in the solutions implemented.

22. In mid-2023, the SFC conducted a more comprehensive Regtech survey on 50 selected LCs (surveyed LCs). They were selected based on several criteria, including the types of regulated activities that they engage in, company background[1], business and operation sizes, clientele and their Regtech adoption experience gathered in the previous engagements.

23. The survey aimed to gauge the LCs adoption status of Regtech in the AML/CFT processes[2] and gain a deeper understanding of their adoption process in the following aspects:

    the adoption status and features of the Regtech solutions in major AML/CFT processes;

    the benefits and challenges of Regtech adoption; and

    the development, implementation and ongoing monitoring of the Regtech solutions.

24. With reference to the survey results, surveyed LCs were selected for deep-dive discussions to obtain a more comprehensive understanding of their adoption approach. This included how the implemented Regtech solutions have assisted them in major AML/CFT processes, their key considerations for implementation, and how they have overcome the challenges encountered.

25. The sections below summarise the key observations on the benefits and challenges of Regtech adoption and the common types of Regtech solutions gathered from the Regtech survey, deep-dive discussions and other engagement sessions with LCs.

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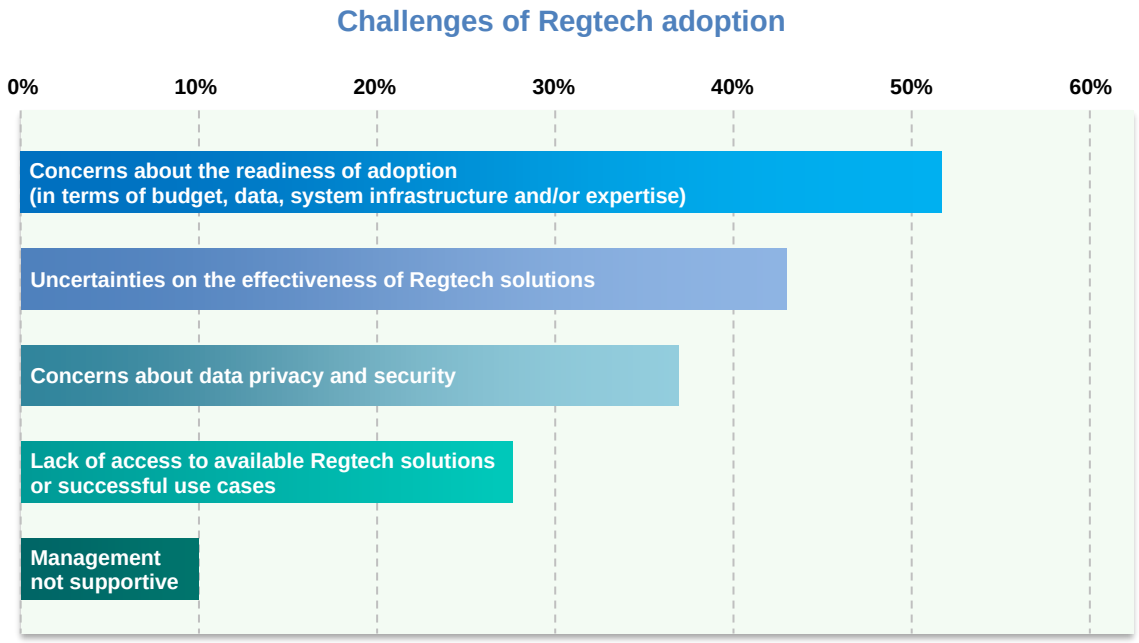
CDD;
name screening;
transaction monitoring;
third-party deposits identification and due diligence; and
management information reporting.

31. Less than half of the surveyed LCs considered that Regtech adoption could result in cost savings, and some indicated the initial implementation cost may not be low. However, most of them believed that adopting Regtech solutions is a long-term investment which can ultimately help save costs, especially in terms of time and resources.

32. Despite numerous benefits that encourage Regtech adoption, there are challenges which are shown in the survey results below.

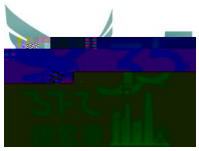



33. Approximately half of the surveyed LCs expressed concerns about their readiness of adoption in terms of budget, data, system infrastructure and/or expertise. Some LCs specifically mentioned that having the right mentality is the key to getting themselves ready in all aspects. To address this challenge, they engaged with all stakeholders (eg, business, compliance, operations and finance departments) to identify the needs of adopting Regtech such as streamlining and automating workflows, and deduce the long-term benefits. They also shared that the Government has provided funding programmes to support the use of technological solutions.

34. In addition, these LCs met with in-house IT and/or external vendors to explore how they could improve their readiness by digitising and standardising relevant data as well as upgrading their system infrastructure. They also consulted these IT experts on the types of Regtech solutions that could help achieve their objectives and the adoption approach such as whether to develop the solution in-house, subscribe to a readily available solution (including cloud-based solution and on-premises software) or develop a customised solution with an external vendor.

35. Some LCs also chose to start modestly by implementing Regtech solutions in one or a few AML/CFT processes initially. This approach can reduce initial costs and make it easier to showcase progress and demonstrate successful use cases of effective adoption. They also monitored the implemented solutions regularly to ensure they function as intended and refined the algorithms and logics when needed to ensure they are effective. All these also address concerns about the uncertainties on the effectiveness of Regtech solutions in assisting them to fulfil their regulatory obligations, which is one of the challenges raised by 40% of the surveyed LCs.

36. About 35% of the surveyed LCs raised concerns about data privacy and security, especially for cloud-based solutions provided by external vendors. Some LCs addressed these concerns by considering vendors with a proven track record of data privacy and security. For instance, conducting due diligence on the vendors, review



**C.**

### i. Name screening

41. Name screening is a key AML/CFT process to identify customers and their beneficial owners or connected parties who are terrorist suspects, possible designated parties, politically exposed persons (PEPs) or associated with adverse media exposure. Most of the surveyed LCs (92%) have indicated that they have adopted Regtech solutions in name screening.

#### Key observations on name screening

**Adoption rate**

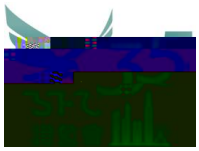
**92%** (45 respondents)

**36**

**Top three common functions:**

- identifying names with alterations
- auto-screening of existing customers and any beneficial owners of customers against new and any updated designations
- advanced filtering to reduce false-positive screening alerts

## Illustrative use cases of Regtech solutions adopted by LCs for name screening



**Example 2: AI-powered name screening solution**

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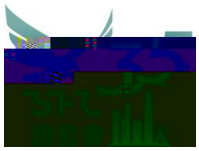


**Example 4: Customised workflow tool to streamline the adverse media review process**

An LC has engaged an external vendor to develop a customised workflow tool which streamlines the adverse media review process. The workflow tool centralises all necessary information in a single platform which eliminates the need to check multiple information sources during case review, such as referring to the original news source, performing open-source searches, and accessing the customer

48. CRA typically occurs after LCs gather customer data during the onboarding process. Some LCs adopted Regtech solutions for CRA which help analyse customer data more comprehensively and accurately. Risk re-rating would also be automatically triggered when there are changes of customer information to ensure that a is promptly updated. This enables more timely and effective identification of potential ML/TF risks while reducing the risk of overlooking

49. LCs considered that Regtech solutions also help ensure consistent application of the risk assessment methodology across different customers and different time periods, avoiding biases and risks of manual calculation errors.

### Illustrative use cases of Regtech solutions adopted by LCs for client onboarding and CRA

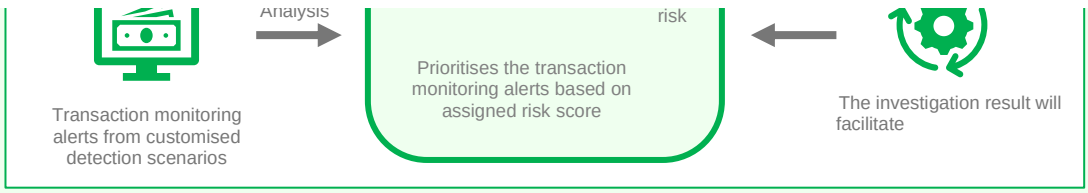
**Example 5: Identity verification and automated form filling through adoption of "iAM Smart"**

is a recognised digital identification system since June 2023. An LC has established API connection between its mobile application and the application to authenticate the identity of a customer who is a registered user of

### iii. Transaction monitoring

50. Transaction monitoring is an important AML/CFT process to detect unusual or suspicious transactions and activities which may indicate ML/TF. Based on our survey results, nearly 70% of the surveyed LCs have adopted Regtech solutions to

55. Some LCs have also adopted other AI features to enhance their transaction monitoring processes, for example, to prioritise alerts based on their risk score and filter out false positive alerts, allowing staff to focus on transactions of higher risks.



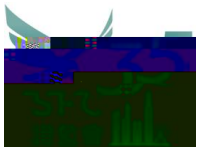

An LC has implemented a transaction monitoring solution which generates alerts based on a set of customised detection scenarios with dynamic parameters, for example, to identify unusual large deposits by comparing with the average of the aggregated transaction amount in the past three months.

The solution utilises an AI-powered alert scoring engine. The underlying machine learning model is trained to identify red flags in transactions and learns from the decisions, to determine a risk score. The LC will prioritise resources to review the alerts with a higher risk score. The alert review results will form part of the data to retrain the machine learning model to enhance its accuracy in identifying red flags and alert scoring.

For alerts with a lower risk score, the rule engine in the transaction monitoring solution could automatically discount the alerts if the concerned transactions are in line with the custom typical transaction behaviours (eg, large transactions for a specific stock that the customer has previously traded).

Furthermore, the solution facilitates the identification of unusual or suspicious transaction patterns across multiple accounts belonging to or related to the same customer, enabling a holistic monitoring at customer level.

The LC considered that the transaction monitoring solution with an AI-powered alert scoring engine has enhanced the overall effectiveness and efficiency of the process, enabling staff to focus on transactions that genuinely carry higher risks.



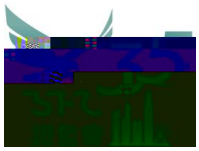
### iv. Management information reporting

56. compliance with the AML/CFT requirements. It is important to keep senior management informed and updated on business developments and regulatory compliance situations. According to our survey results, less than half of the surveyed LCs have adopted Regtech solutions in this area.

#### Key observations on management information reporting

**Adoption rate**

**43%**

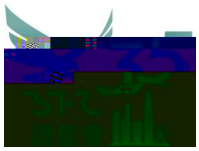


## Illustrative use case of Regtech solutions adopted by LCs for management information reporting

### Example 10: Management information system using a dynamic dashboard with real-time data feed

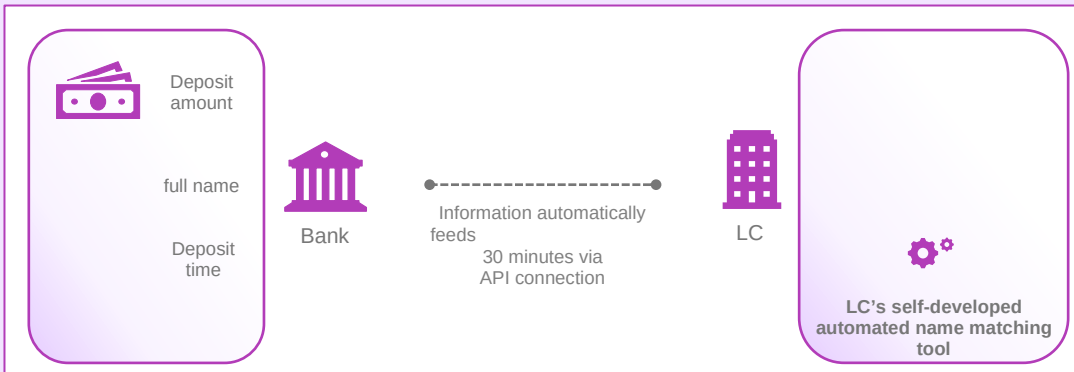
An LC has gone through a digitisation process including data standardisation across different systems. All data attributes are collated into an interactive dashboard for real-time monitoring of status and metrics of different processes including CDD, CRA and transaction monitoring.

The dashboard also offers easy navigation and drill-down capabilities. It provides an



## Illustrative use cases of Regtech solutions adopted by LCs for third-party deposit identification and due diligence

### Example 11: Using API and automated name matching tool to facilitate identification of third-party deposits




An LC has established API connection with banks to obtain information related to deposits received in its

regular time intervals, such as every 30 minutes, for subsequent name matching.

The LC has developed an automated name matching tool to simplify its comparison

ly matches

trading account as available funds.

In addition to improving efficiency and effectiveness, the LC recognised that this approach has also enhanced customer experience as customers are no longer required to furnish supporting documents for their deposits.



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71. For Regtech solutions involving AI models, LCs are expected to define key principles underlying the model algorithms to achieve the intended outcome. It is also important to have sufficient human oversight to allow for critical evaluation, validation, and correction of AI-generated outputs. For instance, where AI models are adopted in the Regtech solutions to automatically filter out some false positive alerts, LCs are expected to conduct sufficient testing to ensure that this filtering function operates as intended and does not filter out any true hits, including false negative, which warrant further scrutiny.

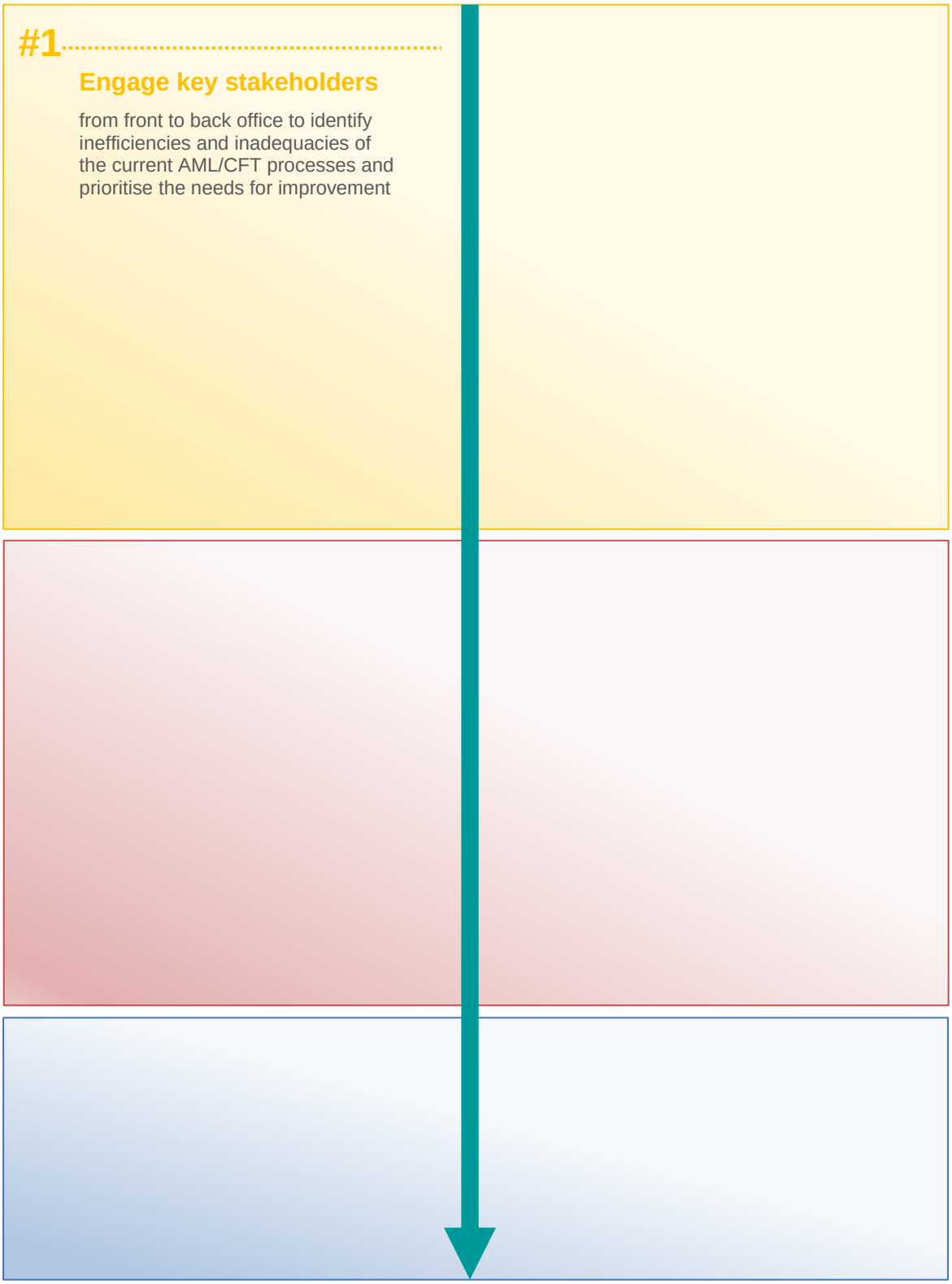
72. The adequacy, appropriateness and effectiveness of the parameters and thresholds should be subject to independent validation and ongoing monitoring to ensure that , and function effectively as intended.

## C. Data protection and cybersecurity

73. AML/CFT processes involve a substantial amount of customer and transaction data. It is [illegible] systems and networks are subject to adequate and appropriate protection, regardless of whether Regtech solutions are adopted.

74. Various measures are expected to be taken to safeguard personal data from unauthorised access, use or disclosure. These include ensuring that personal data are collected, used, transferred, stored and disposed securely and in compliance with applicable data protection laws and regulations. In addition, LCs are expected to establish cybersecurity measures such as encryption, firewalls and access controls to safeguard their computer systems and networks from cybercrime and cyberattacks. The controls in relation to data protection and cybersecurity measures are expected to be subject to regular review to ensure their effectiveness.

## D. Managing risks posed by external vendors

75. When engaging an external vendor for a readily available Regtech

## Regtech adoption roadmap