

# Operational Resilience

## 運作穩健性



Regulatory expectations under Operational Resilience 2 (OR-2) and evolving threats to stability mean that banks in Hong Kong should be taking steps to ensure they can withstand a variety of potential disruptions.

《監管政策手冊》單元OR-2「運作穩健性」發出後，監管機構有一定期望；加上威脅穩定性的因素不斷演化，香港的銀行應採取措施，確保能抵禦多種可能的干擾。

Perhaps more than any other types of business, banks need to be able to continue to serve their customers even amid severe disruptions. To help ensure this, the Hong Kong Monetary Authority (HKMA) introduced the OR-2 consultation with the banking industry in

May 2022. To meet OR-2 requirements, banks will need to demonstrate to the regulator that they are operationally resilient by May 2026.

In the meantime, banks must comply with a number of interim deadlines and requirements. As the process has got under way, banks have been finding out that operational resilience is not just a regulatory box to be ticked; it is an ongoing, evolving process that demands engagement from across the business.

### The importance of operational resilience

The past few years have clearly demonstrated the variety of disruptions that can suddenly emerge, from the COVID-19 pandemic and unprecedented flooding in Hong Kong, to increasingly sophisticated cyberattacks. Technical glitches can have an outsize impact: in early 2024, a number of restaurant and retail operators in the US and UK experienced problems that impacted payments, which triggered damaging headlines around the world.

Given the crucial role that banks play in maintaining the smooth flow of business activity, if they were unable to operate, even for a short period, the impact could be catastrophic. Operational resilience underpins the stability of Hong Kong's banking ecosystem, which also is essential for the city to maintain its status as one of the world's global financial centres.

與其他行業比較，銀行也許更需要確保在受到嚴重干擾的情況下仍能繼續服務客戶。為確保達到這目的，香港金融管理局（金管局）在2022年5月就OR-2諮詢銀行界。按OR-2規定，銀行須最遲在2026年5月向監管當局證明自己運作穩健。

同時，銀行必須遵守一些臨時期限和要求。這個過程展開後，銀行發覺運作穩健性不僅是一個監管要求，還是一個持續不斷的演變過程，需要機構上下共同努力。

### 運作穩健的重要性

過去幾年的經歷清楚印證了各種突如其來的干擾的可能性，從新冠肺炎疫情和香港前所未遇的洪水，到日益複雜的網絡攻擊等。技術故障有可能帶來大規模的影響：2024年初，英美多家餐館和零售店遇到技術問題，影響付款功能，成為全球各地的頭條新聞，因而聲譽受損。

鑑於銀行在維持商業活動順利進行方面發揮著至關重要的作用，如果銀行無法運作，即使僅是一段短時間，影響也可能是災難性的。運作穩健是香港銀行體系穩定的基石，也是香港維持其國際金融中心地位的關鍵所在。



### Key requirements

The OR-2 regime has introduced major changes to how banks manage risk. Banks must understand where their vulnerabilities are across people, facilities, technology, information and third-party risk, and have plans to deal with any gaps. Actions that banks were asked to carry out under the initial OR-2 module include:

- Create frameworks to deal with “severe but plausible scenarios”
- Scenario testing
- Mapping exercises
- Crisis management and severe incident preparation
- Continuity planning for the ongoing mitigation of risk
- Increased accountability among senior management

Banks must be able to demonstrate their understanding of the potential impact of disruption – including reputational damage and legal implications as well as effect on customers – and their strategies for managing the consequences.

### Putting operational resilience into practice

The first milestone in the journey was in May 2023, which was the deadline for banks to share their OR-2 frameworks with the regulator. The good news is that all banks in Hong Kong have successfully met this deadline. But this is only one step in the process. Banks are now in the implementation phase, as they execute their frameworks and carry out the testing needed.

In implementation, banks need to look from the perspective of both severe disruption and ongoing maintenance, with key elements including:

- **Crisis management** – preparing for acute situations where immediate reaction is essential
- **Incident management programme** – to manage all incidents, especially those that may impact critical operations
- **Continuity planning** – ongoing mitigation and understanding of evolving risks
- **Operational risk management** – to identify and assess risks that may disrupt daily operations
- **Technology** – to maintain services through severe disruption

Some of the key areas where banks need to focus their attention as part of the OR-2 process include board engagement, third-party risk, and technology.



### 主要規定

OR-2 就銀行的風險管理工作提出了重要改動。銀行須了解自己在人員、設施、科技、資訊和第三方風險方面的弱點，並制定計劃以補不足。OR-2 初步要求銀行採取的行動包括：

- 建立架構處理「嚴峻但可能發生的情景」
- 情景測試
- 配對工作
- 風險管理及嚴峻事故應對準備
- 持續運作規劃以持續減低風險
- 加強高級管理層問責性

銀行必須證明能理解干擾可能帶來的影響，包括名譽受損、法律問題、對客戶的影響等，並能說明銀行管理相關後果的策略。

### 推動運作穩健的工作

邁向運作穩健道路上的第一個里程碑，是2023年5月，這是銀行向監管當局提交OR-2架構的最後限期。好消息是，香港所有銀行都在限期前提交了架構。但這只是整個過程中的一個步驟，銀行現正處於落實階段，建立有關架構，並進行所需測試。

在實施過程中，銀行須同時兼顧嚴重干擾的情

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### Board engagement

Engagement of management at the highest level is a requirement of the OR-2 guidance. HKMA states that boards should actively participate in setting and reviewing the parameters, such as the list of the bank’s critical operations. The board has ultimate responsibility and should also ensure that action is being taken to address any deficiencies.

This may be challenging, as senior management already have plenty of demands on their time. But successfully engaging the board has benefits, as banks that have an engaged and proactive C-suite tend to be more advanced in their operational resilience journey.

景和日常維護的情況。主要元素包括：

- **風險管理** – 為必須即時回應的緊急情況做好準備
- **事故管理計劃** – 管理所有事故，尤其是可能影響關鍵運作的事故
- **持續運作規劃** – 了解演變中的風險，並持續減低風險
- **業務操作風險管理** – 識別及評估有可能干擾日常運作的風險
- **科技** – 在受到嚴重干擾的情況下維持服務

在落實OR-2時，銀行須注意的一些重點包括：董事局參與、第三方風險，以及科技。

### 董事局參與

讓最高管理層參與，是OR-2指引的一項規定。金管局表示，董事局應積極參與制訂及檢視相關指標，例如銀行關鍵運作清單等。董事局應最終為此負責，並應確保採取行動處理不足之處。

這有一定難度，原因是高級管理層日理萬機，時間有限。不過，讓董事局參與有其好處，銀行高級管理層若能積極投入，維持運作穩健的工作通常做得會更順利。

### Managing third-party risk

Many banks use third parties to carry out a variety of services, from specialised technology to routine administrative work. But banks cannot be truly resilient unless every link in the chain is held to the same high standards.

Under OR-2, banks need to identify where they rely on third parties, and model the impact if the third party cannot provide the expected service. Using more than one operator for critical services, possibly in different jurisdictions, is one way that banks can spread the risk.

The HKMA's survey of banks' frameworks may also reveal concentration risk, where a number of institutions depend on the same service provider. For example, if many banks depend on the same third-party service provider to monitor credit risk. In 2023, two banks in Singapore suffered service outages that were caused by an issue with the cooling system at a data centre run by a third party.

Given the crucial role that third parties play in the financial ecosystem, it is expected that the regulators will be increasing their scrutiny going forward.

### 管理第三方風險

許多銀行聘用第三方提供多種服務，從專門的科技相關工作到日常行政管理等。只有每一環節都達到同樣高的標準，銀行才可以真正維持運作穩健。

實行OR-2時，銀行須識別倚賴第三方的環節，評估第三方未能提供預期服務時的影響。由於多於一個服務提供者提供關鍵服務，在可能的情況下聘用在不同地區營運的服務提供者，是分散相關風險的一個做法。

金管局檢視銀行的OR-2架構，也可能發現多家機構倚賴同一服務提供者，構成集中風險；例如許多銀行都聘用同一個第三方服務提供者監察信用風險。2023年，某第三方營運的數據中心冷卻系統故障，導致新加坡兩家銀行同時中斷服務。

第三方在金融生態系統中起着關鍵作用，預料監管機構日後將加強監察。

### Technology

The arrival of the pandemic showed the role of technology in mitigating disruptions, as businesses that could immediately implement work-from-home policies were able to resume service more quickly than those that struggled to adapt. Ensuring that banks have the bandwidth to switch to remote work is a key part of operational resilience, and will require ongoing monitoring and testing of new technology.

As cyber threats become ever more sophisticated, banks must remain continually on their guard against hackers and be ready to rapidly respond to any serious cyberattack.

The right technology can also help banks to handle the processes needed under OR-2, as it can give better visibility of the various interconnections where gaps in resilience may occur. Technology can also more efficiently track documentation and other related compliance activity.

### 科技

疫情顯示科技在減低干擾上所起的作用：能馬上推行在家工作政策的機構，比苦苦適應的機構更快回復正常服務。確保銀行有能力改為遙距工作，是維持運作穩健的重要一環，這需要持續監控及測試新科技。

網絡攻擊日趨複雜，銀行必須時刻對駭客保持警惕，並準備好迅速回應嚴重的網絡攻擊。

適當的科技也能幫助銀行處理OR-2所需的工作，讓銀行更清晰地掌握各項操作之間的關係，了解影響穩健性的不足之處。科技也能更有效地追蹤文件和其他相關的合規活動。

### 金管局檢視運作穩健性架構

目前的OR-2規定並非一成不變。自從銀行開始提交各自的架構以來，監管當局一直持續檢視架構內容，包括所選定的關鍵運作、嚴峻但可能發生的情景，以及可承受影響上限。視乎檢視結果，監管當局有可能修訂對銀行的期望。

金管局目前已整體掌握銀行業對外來干擾的準備情況，這可揭示整個業界的不足之處，以及如集中風險等其他問題。

金管局亦正逐一檢視每家銀行的運作穩健性架構，並做出反饋。因應個別銀行的規模、複雜程度及其在金融制度中的角色，金管局日後可能對不同銀行有不同期望。



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### HKMA review of frameworks

The current OR-2 requirements are not set in stone. Since the banks submitted their frameworks, the regulator has been reviewing their selections of critical operations, severe but plausible scenarios and tolerance for disruption. It is likely to amend its expectations according to its findings.

The HKMA now has an overview of the whole sector's preparedness for disruption, which will bring to light any sector-wide gaps, and other issues such as concentration risk.

The regulator is also looking at the frameworks on a bank-by-bank basis, and is now in the process of providing feedback. It is possible that the HKMA may have different expectations of different banks in the future, depending on their size, complexity and the roles they play in the financial system.

### Embedding operational resilience

Having finalised their OR-2 frameworks, banks are now one year into a three-year process as they work towards the 2026 deadline. However, this is no time for complacency. The requirements are substantial and banks should be busy

“*Engagement of management at the highest level is a requirement of the OR-2 guidance.*”

### 日常業務運作融入運作穩健性

敲定OR-2架構後，銀行在朝着2026年的期限進發的三年路途上，已經走過了一年。不過，銀行一點也不能鬆懈，OR-2的規定有一定要求，銀行這時候應忙着測試各自的架構，同時準備應對金管局的其他指引，解答局方提出的問題。

除了符合金管局的規定外，為進一步加強抵禦干擾的能力，銀行應在日常業務運作中融入運作穩健性原則。為此，銀行應清楚訂明機構內各人的職責，說明各部門檢視和報告進度的責任。

testing their frameworks, while also preparing to deal with any further guidance or questions from the HKMA.

Besides meeting the compliance requirements, to further strengthen their ability to withstand disruptions banks should embed operational resilience principals across their day-to-day operations. To do this, they need to align responsibilities across the business and create clear roles among different teams to review and report on progress.

There is no doubt that embedding operational resilience is a significant undertaking that will require considerable resources. But banks should see it not just as a compliance exercise, but as an opportunity to enhance their competitiveness as they shore up their defences.

### OR gathers steam

Globally, operational resilience is a trend as more regulators are looking to introduce or enhance their own guidelines and regulations. Banks based in Hong Kong, especially those that are part of a global network, can leverage the practices in other jurisdictions.

## OR-2: Brief Timeline OR-2時間表

May 2022 –  
The HKMA issues Supervisory Policy Manual module OR-2 Operational Resilience  
May 2023 –  
Deadline for banks to have their OR-2 frameworks in place  
August 2023 –  
The HKMA survey of banks on their frameworks  
Late 2023-2024 –  
The HKMA feeding back to banks on the survey results  
May 2026 –  
Banks must be operationally resilient

2022年5月 –  
金管局發出《監管政策手冊》單元OR-2「運作穩健性」  
2023年5月 –  
銀行完成制訂運作穩健性架構  
2023年8月 –  
金管局檢視銀行的運作穩健性架構  
2023年底至2024年 –  
金管局知會銀行檢視結果  
2026年5月 –  
銀行必須達至運作穩健

毫無疑問，在日常業務運作中融入運作穩健性，是重大的工作，需要大量資源。不過，銀行不應僅將之視為合規工作，而應視之為藉着加強防衛能力提升競爭力的機會。

### OR加速前進

在全球各地，運作穩健性是大勢所趨，越來越多監管機構考慮引入或加強各自的指引和規例。香港的銀行（尤其是作為環球網絡一員的銀行）可參照其他地區的做法。





世界各地許多監管機構都就運作穩健性發出指引，而香港則是少數為銀行落實有系統的運作穩健性制度的地區之一。香港在這方面走在前列，是正面的發展，可鞏固香港作為全球優秀銀行中心的地位，彰顯香港銀行業的穩定性。

運作穩健性的概念，也逐漸引起銀行界以外業界的興趣。香港的一些資產管理公司和保險公司，已運用OR-2指引作為框架，確保自己能準備好抵禦潛在干擾。

### 2026年及以後

歸根結底，目前採取行動配合OR-2限期的銀行，將最能抵受潛在的動盪情況。全球氣候越來越難以預測，勒索軟件日趨複雜，駭客手法層出不窮，攻擊對象日益廣泛，將來可能出現的干擾將越來越多。

在日常運作中融入並持續加強運作穩定性，意味着銀行可充份準備配合金管局2026年的限期，並且準備好面對下一個危機，不管危機以什麼形式出現。BT

The US Federal Reserve, for example, in March announced enhanced risk management requirements for firms considered “financial market utilities”. US financial regulators also noted recently that well-designed systems and regular testing can help banks to deliver critical services amid disruptions. The Fed also published a paper in 2020 on “Sound Practices to Strengthen Operational Resilience”, which includes managing cyber risk.

Banks can also refer to the 2023 Regulation on Digital Operational Resilience from the EU, and the Basel Committee’s Principles for Operational Resilience and Principles on Outsourcing. Other jurisdictions including Singapore have issued their own information and guidance on operational resilience, while others, such as Canada, are planning to do so. In the UK, banks have been asked to perform mapping and testing by the end of March 2025.

Although many regulators around the world have issued guidance on the topic, Hong Kong is among a relatively small number of jurisdictions that have implemented a structured operational resilience regime for banks. Hong Kong’s

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OR-2指引要求最高管理層  
參與其中。”

例如美國聯邦儲備局就在3月公布，加強被視為「金融市場事業單位」的機構的風險管理規定。美國的金融監管機構最近亦指出，設計良好的系統和定期測試，有助銀行在受到干擾期間提供關鍵服務。聯儲局亦在2020年發表有關「提升營運韌性的良好實務」的文件，當中包括管理網絡風險。

銀行亦可參考歐洲聯盟的2023年《數碼運作穩健性規管》，以及巴塞爾委員會的《運作穩定性原則》及《外判原則》。有些地區包括新加坡，已發出各自有關運作穩健性的資料和指引；其他地區如加拿大則正籌備這樣做。英國則要求銀行在2025年3月底前做好配對和測試。

advanced role in this area is a positive development, as it strengthens the city’s global status as a banking centre of excellence as well as its stability.

The concept is also gaining interest outside the banking sector. In Hong Kong, some asset management and insurance firms have been using the OR-2 guidelines as a framework to ensure that they too are ready to withstand potential disruptions.

### To 2026 and beyond

Ultimately, banks that are taking actions now to meet the OR-2 deadlines in a timely manner will also be in the best position to withstand any upheaval to come. In future, potential disruptions may intensify as the world’s climate becomes less predictable, ransomware becomes more sophisticated, and hackers find new methods and targets.

Embedding and continually enhancing operational resilience means banks will be well prepared for the HKMA’s 2026 deadline and will also be ready to face the next crisis, whatever shape it takes. BT

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