

Module Outline
ECF on Fintech
Module 2 “Banking and Risk Essentials”

Benchmarked HKQF Level:	5
No. of Credits:	20
Total Notional Learning Hours:	200
a) Class contact hours:	15 hours (3-hour per session x 5)
b) Self-study hours:	183 hours
c) Assessment hours:	2 hours
Pre-requisite:	NA

Module Objective

The module aims to enable learners a clear understanding of corporate, institutional, commercial, and retail banking and articulate the offerings and distinction of different banking sectors; to provide learners knowledge of products and services, and respective banking functions and operations supports; to provide learners a clear picture of contemporary banking developments and local talent expectations, including local and international Fintech initiatives; to enhance learners' knowledge and understanding on risk management framework and methodologies, regulatory framework landscape, Regtech application and development.

Module Intended Outcomes (MIOs) & Units of Competencies (UoCs)

Upon completion of the Module 2, candidates should be able to:

MIOs	Intended Outcomes / Competence	*Unit of Competencies (UoCs)
MIO-1	Differentiate between different banking product offerings and study the differences between retail banking, commercial banking, corporate banking, and institutional banking.	107442L5 107482L5 109580L5 / 107594L5 109584L5 / 107596L5 109609L4 / 107622L4
MIO-2	Recognise expectations for competency of local Fintech talent and stay up-to-date on banking Fintech developments and adopt local and international Fintech regulations and government initiatives.	

*Note: For the details of the UoCs, please refer to the Specification of Competency Standards (SCS) of [Retail Banking](#) and [Corporate & Commercial Banking](#) which were developed by HKCAAVQ.

Assessment

Examination duration:	2 hours
Examination format:	Multiple Choice Questions (MCQ) with 60 questions
Pass mark:	60%

Syllabus

Chapter 1: Retail and Commercial Banking (Fintech-related applications)	
1.1	Fundamentals of retail and commercial banking
1.1.1	- Key offering of a universal bank
1.1.2	- Key business aspects covering by retail and commercial banking
1.2	Local market landscape
1.2.1	- Critical factors to retail banking and commercial banking
1.2.2	- Business size of authorized institution
1.2.3	- Market size of SMEs in Hong Kong
1.3	Customer segmentation
1.3.1	- Retail banking
1.3.2	- Commercial banking
1.4	Channel Management
1.5	Retail and SME Credit assessments
1.5.1	- Retail banking credit assessments
1.5.2	- Commercial banking credit assessments
1.6	Summary
Chapter 2: Corporate and Institutional Banking	
2.1	Fundamentals of corporate and institutional banking
2.1.1	- Overview
2.1.2	- Client segments
2.1.3	- Products
2.1.4	- Corporate lending
2.2	Customer relationship management
2.2.1	- Definition and framework
2.2.2	- Key Elements for successful CRM
2.2.3	- Roles and responsibilities of relationship managers
2.2.4	- Other key parties



2.2.5	- CRM under the digital world
2.3	Transaction banking and securities services
2.3.1	- Trade finance
2.3.2	- Cash management and account services
2.3.3	- Securities services
2.3.4	- Key areas of concern and opportunities in transaction banking
2.4	Financial markets and treasury advisory
2.4.1	- Money markets
2.4.2	- Fixed income, currencies and commodities
2.4.3	- Equities
2.4.4	- Treasury advisory
2.4.5	- Key areas of concern and opportunities in finance markets
2.5	Corporate finance and others
2.5.1	- Debt capital markets
2.5.2	- Equity capital markets
2.5.3	- Project finance
2.5.4	- M&A and corporate advisory
2.5.5	- Key areas of concern and opportunities in corporate finance
2.5.6	- Other corporate and institutional banking services
2.5.7	- Collaboration with other banking sectors

Chapter 3: Contemporary Banking Trends

3.1	Smart banking initiatives
3.1.1	- Faster payment system
3.1.2	- Enhanced Fintech supervisory sandbox
3.1.3	- Promotion of virtual banking
3.1.4	- Banking made easy initiative
3.1.5	- Open application programming
3.1.6	- Closer cross-border collaboration
3.1.7	- Enhanced research and talent development
3.2	Faster Payment System (FPS)
3.2.1	- Features
3.2.2	- Benefits to consumer
3.2.3	- Benefits to merchants and corporates

3.3	Enhanced Fintech Supervisory Sandbox (FSS) 2.0
3.3.1	- Objectives
3.3.2	- Features
3.3.3	- Usage
3.4	Promotion of virtual banking
3.4.1	- Selection criteria of VB application
3.4.2	- VB supervisory approach
3.4.3	- Key risk areas
3.4.4	- New personal credit products
3.5	Banking Made Easy Initiative
3.5.1	- Remote customer onboarding
3.5.2	- Online finance
3.5.3	- Online investment
3.5.4	- Anti-money laundering & counter-financing of terrorism
3.5.5	- Regtech for prudential risk management and compliance
3.5.6	- Machine-readable regulations
3.6	Open Application Programming Interface (API)
3.6.1	- Implementation approach
3.6.2	- Adoption status of commercial banking
3.6.3	- Benefits
3.6.4	- Challenges
3.6.5	- Essential practices for Phase III and IV implementation
3.7	Cross-border collaboration
3.7.1	- Collaboration in Guangdong-Hong Kong-Macau Bay Area
3.7.2	- Central bank digital currencies
3.7.3	- Collaboration with Singapore
3.7.4	- Project LionRock-Inthanon
3.7.5	- Bank of International Settlements Innovation Hub Hong Kong Centre
3.7.6	- Global financial innovation network cross-border testing
3.8	Talent development programme
3.8.1	- Fintech Career Accelerator Scheme
3.8.2	- Industry Project Masters Network Scheme
3.8.3	- Enhanced Competency Framework

3.9	Financial intermediation
3.9.1	- Definition of financial intermediation
3.9.2	- Strategies of financial intermediation
3.9.3	- Latest development of financial intermediation in Hong Kong
3.10	Summary

Chapter 4: Risk Management and Regulatory Compliance

4.1	Overview of risk management in banking
4.1.1	- Introduction to risk management
4.1.2	- Enterprise risk management
4.1.3	- Importance of risk management in banks
4.1.4	- Big losses of financial institutions
4.1.5	- Risk management framework
4.2	Tools and measures in risk management
4.2.1	- Value-at-Risk (VaR)
4.2.2	- Advantages/drawbacks of VaR
4.2.3	- Expected shortfall (ES)
4.2.4	- Coherent risk measures
4.2.5	- Back-testing
4.2.6	- Scenario analysis and stress testing
4.2.7	- Scenario design
4.2.8	- Reverse stress testing
4.2.9	- Regulation on stress testing
4.2.10	- Economic capital
4.2.11	- Risk-adjusted return on capital (RAROC)
4.3	International regulatory framework: Basel III standards and trend of development in Fintech regulation landscape
4.3.1	- Importance of regulating banks
4.3.2	- Introduction to BASEL
4.3.3	- BASEL III
4.3.4	- Capital definition & requirements
4.3.5	- Capital conservation buffer
4.3.6	- Countercyclical buffer
4.3.7	- Leverage ratio

4.3.8	- Liquidity ratios
4.3.9	- Capital for CVA risk
4.3.10	- G-SIBs
4.3.11	- D-SIBs
4.3.12	- Fintech regulations: Current state in Hong Kong
4.3.13	- Evolving regulatory landscape on other jurisdictions
4.4	Regtech: Overview and Emerging Trend of Development
4.4.1	- Introduction to Regtech
4.4.2	- Evolution of Regtech
4.4.3	- Importance of Regtech to the banking industry
4.4.4	- Regtech's underlying technologies
4.4.5	- Regtech's applications
4.4.6	- Regtech: Current state and government initiatives
4.4.7	- Regtech adoption in Hong Kong: Opportunities and challenges
4.4.8	- Case studies and insights: Regtech applications in banks
4.4.9	- Suptech and HKMA's adoption of Suptech
4.4.10	- Future of Regtech

Recommended Readings

Essential Readings:

1. HKIB Course Notes of ECF-Fintech: Module 2 Banking and Risk Essentials. (2022)
2. John C. Hull. (2018). Risk Management and Financial Institutions Fifth Edition. Wiley

Supplementary Readings

1. Accenture (2020). The Next Phase of the Banking Open API Journey.
2. Albastaki, & Albastaki, Yousif. (2021). Innovative strategies for implementing Fintech in banking. Business Science Reference.
3. Arner D. W., Barberis J., and Buckley R. P. (2017) Fintech, Regtech and the Reconceptualization of Financial Regulation. Northwestern Journal of International Law & Business Vol. 37 Issue 3.
4. Bank for International Settlements (2020). Rise of the central bank digital currencies: drivers, approaches and technologies.
5. Bank for International Settlements (BIS). (Basel Committee on Banking Supervision reforms - Basel III).
6. Banking Ordinance, Authorization of Virtual Banks A Guideline issued by the Monetary Authority under Section 16(10).
7. Barberis J., Arner D., Buckley R. (2019). The Regtech Book: The Financial Technology Handbook for Investors, Entrepreneurs and Visionaries in Regulation. Wiley.
8. Beck, H. (2001). Banking is essential, banks are not. The future of financial intermediation in the age of the Internet. *Netnomics*, 3(1), 7-22.
9. Berger, A. N., & Udell, G. F. (2006). A more complete conceptual framework for SME finance. *Journal of Banking & Finance*, 30(11), 2945–2966.
10. Bodá, M., & Zimková, E. (2021). A DEA model for measuring financial intermediation. *Economic Change and Restructuring*, 54, 339-370.
11. Bodea, T., & Ferguson, M. (2014). The Ideas Behind Customer Segmentation. In *Segmentation, Revenue Management and Pricing Analytics* (pp. 11–17). Routledge.
12. Boobier, T. (2020). *AI and the Future of Banking*. John Wiley and Sons.
13. Boston Consultant Group (2019). *Retail-Banking Distribution 2025 Up Close and Personal*.
14. Boston Consultant Group. (2018). Redefining corporate client relationships in a digital world.
15. Deloitte. (2017). Modernizing transaction banking: Service externalization and the right technology portfolio.
16. ebrary, I., & Books24x7, I. (2011). *Business knowledge for IT in global retail banking a complete handbook for IT professionals*. Essvale Corp.
17. Europe Banking Association (2017). *Open Banking: advancing customer-centricity*
18. Farrow, G. S. (2020). An application programming interface model for open banking ecosystems. *Journal of Payments Strategy & Systems*, 14(1), 75-91.

19. Finnove Research (2018). Neo Banks - Performance and new ideas.
20. GFIN Report (2019).
21. Greenbaum, Thakor, Boot, Thakor, Anjan V, & Boot, Arnoud W. A. (2020). Contemporary financial intermediation. (Fourth edition / Stuart I. Greenbaum, Anjan V. Thakor, Arnoud W.A. Boot.). Academic Press.
22. Guide, A. B. I. C. (2012). Customer Management in SME Banking.
23. Guo, Y. (2017). Implementing relationship banking strategies and techniques and improving customer value. *Finance and Market*, 2(2).
24. HK Financial Services Development Council (2020). Family Wisdom: A Family Office Hub in Hong Kong.
25. HKMA (2020). International Financial Centre.
26. HKMA Banking Made Easy Initiative.
27. HKMA Circular B1/15C B9/29C, Fintech Supervisory Sandbox (FSS).
28. HKMA Circular B10/1C B1/15C, Remote on-boarding and iAM Smart.
29. HKMA Circular B10/1C B1/15C, Remote on-boarding of corporate customers.
30. HKMA Closer Cross-border Collaboration.
31. HKMA Enhanced Competency Framework.
32. HKMA Fintech Career Accelerator Scheme (FCAS) – Gap Year Placement Programme.
33. HKMA Fintech Supervisory Sandbox.
34. HKMA Insight (2021). New Personal Credit Products by Virtual Banks.
35. HKMA Insights (2020). Wealth Management Connect Scheme in the Greater Bay Area.
36. HKMA Press Releases (2017). A New Era of Smart Banking.
37. HKMA Press Releases (2017). Latest Development on the Era of Smart Banking.
38. HKMA Press Releases (2018). Application of Financial Technology in Personal Lending Business.
39. HKMA Press Releases (2018). FPS New Account Proxy -HKID Number.
40. HKMA Press Releases (2019). Granting of Virtual Banking License 27 March 2019.
41. HKMA Press Releases (2019). Hong Kong Fintech Week 2019.
42. HKMA Press Releases (2020). Hong Kong Fintech Week 2020.
43. HKMA Press Releases (2021). HKMA Promulgates Implementation Details for Cross-boundary Wealth Management Connect Pilot Scheme in the Guangdong-Hong Kong-Macao Greater Bay Area.
44. HKMA Press Releases (2021). The HKMA Unveils “Fintech 2025” Strategy.
45. HKMA Regtech Watch Issue No. 3 (2020).
46. HKMA Revised Guidelines for New Personal-Lending Portfolio (NPP).
47. HKMA Speeches (2020). Welcoming Remarks at HKMA Fintech Day.
48. HKMA Speeches (2021). BIS Innovation Summit 2021 “Central Bank Innovations: Payments,

Data and Capabilities".

49. HKMA Supervisory Policy Manual (SPM) (AML 1 - V.1 – 19.10.18)
50. Hong Kong Government Consultation Paper (2018). Global Financial Innovation Network (GFIN) Consultation document.
51. Hong Kong Interbank Clearing Limited (HKICL).
52. Hong Kong Monetary Authority (2001). Sharing of Consumer Credit Data through a Credit Reference Agency.
53. Hong Kong Monetary Authority (2002). Best Practices for Credit Card Operations.
54. Hong Kong Monetary Authority (2021). HKMA Monthly Statistical Bulletin (July 2021).
55. Hong Kong Monetary Authority (2021, July 29). Supervisory policy manual: CR-G-1, CR-S-2, TA-2, IR-1, CR-G-13, CR-G-14.
56. Hong Kong Monetary Authority (HKMA) (2001, Jan 19) Supervisory Policy Manual IN. Introduction.
57. Hong Kong Monetary Authority (HKMA) (2001, Oct 11) Supervisory Policy Manual SA-1. Risk-based Supervisory Approach.
58. Hong Kong Monetary Authority (HKMA) (2017, Oct 06) Supervisory Policy Manual IC-1. Risk Management Framework.
59. Hong Kong Monetary Authority (HKMA) (2019, Dec 27) Supervisory Policy Manual GL. Glossary. Introduction.
60. Hong Kong Monetary Authority (HKMA) (2019, Nov 12). Inaugural Issue of Regtech watch.
61. Hong Kong Monetary Authority (HKMA) (2019, Nov 12). Regtech Watch Issue No. 1.
62. Hong Kong Monetary Authority (HKMA) (2020, Dec 16). Regtech Watch Issue No. 5.
63. Hong Kong Monetary Authority (HKMA) (2020, Jun 12). Regtech Watch Issue No. 3.
64. Hong Kong Monetary Authority (HKMA) (2020, Mar 16). Regtech Watch Issue No. 2.
65. Hong Kong Monetary Authority (HKMA) (2020, Nov 03). HKMA developed a two-year roadmap to promote Regtech adoption.
66. Hong Kong Monetary Authority (HKMA) (2020, Nov). Transforming Risk Management and Compliance: Harnessing the Power of Regtech.
67. Hong Kong Monetary Authority (HKMA) (2020, Sep 18). Regtech Watch Issue No. 4.
68. Hong Kong Monetary Authority (HKMA) (2021, Jan 21) Circulars & Guidance Papers. Circulars. Report on "AML/CFT Regtech: Case Studies and Insights" Encl. AML/CFT Regtech: Case Studies and Insights.
69. Hong Kong Monetary Authority (HKMA) (2021, Jul 26). Second Issue of Regtech Adoption Practice Guide: Anti-Money Laundering/Counter-Financing of Terrorism.
70. Hong Kong Monetary Authority (HKMA) (2021, Jun 08). HKMA Unveils "Fintech 2025" Strategy.
71. Hong Kong Monetary Authority (HKMA) (2021, Jun 17). HKMA launches the Regtech Adoption Practice Guide series.
72. Hong Kong Monetary Authority (HKMA) (2021, Jun 17). Regtech Watch Issue No. 7.

73. Hong Kong Monetary Authority (HKMA) (2021, Jun 17). Seventh and Final Issue of Regtech Watch.
74. Hong Kong Monetary Authority (HKMA) (2021, Jun 30). HKMA hosts its flagship Regtech event - "Unlocking the Power of Regtech".
75. Hong Kong Monetary Authority (HKMA) (2021, Jun). First Issue of Regtech Adoption Practice Guide: Cloud-based Regtech Solutions.
76. Hong Kong Monetary Authority (HKMA) (2021, Mar 19). Regtech Watch Issue No. 6.
77. Hong Kong Monetary Authority (HKMA) (2021, Sep 27). Third Issue of Regtech Adoption Practice Guide: Governance, Risk and Compliance.
78. Hong Kong Monetary Authority. (2018, October 30). The launch of eTradeConnect and the Collaboration with we.trade.
79. Hong Kong Monetary Authority. (2021, February 23). Joint statement on the multiple central bank digital currency (m-CBDC) bridge project.
80. Hull C. (2018). Risk Management and Financial Institutions Fifth Edition. Wiley.
81. International Finance Corporation (2009). The SME Banking Knowledge Guide.
82. International Finance Corporation (2012). Customer Management in SME Banking: A Best-in-Class Guide.
83. KPMG (2020). Transforming Risk Management and Compliance: Harnessing the Power of Regtech.
84. KPMG (2021). Regtech Adoption Practice Guide, Issue #2: Anti-Money Laundering/Counter-Financing of Terrorism.
85. Los Angeles Times. (2013, Dec 21) Wells Fargo's Pressure-Cooker Sales Culture Comes at a Cost.
86. OCED (2021). Central Bank Digital Currencies and payments: A review of domestic and international implications.
87. Oliver Wyman and International Securities Services Association (2020). The future of securities services.
88. Payne, A., & Frow, P. (2005). A strategic framework for customer relationship management. *Journal of marketing*, 69(4), 167-176.
89. PWC (2020). Reshaping Banking with Artificial Intelligence.
90. Quinlan and Associates. (March 2021). Branching Off.
91. Rogers, Martha; Peppers, Don. (2016). Differentiating Customers by Their Needs. In *Managing Customer Relationships* (pp. 187–215). John Wiley & Sons, Inc.
92. Rogers, Martha; Peppers, Don. (2016). Differentiating Customers by Their Needs. In *Managing Customer Relationships* (pp. 187–215). John Wiley & Sons, Inc.
93. Securities and Futures Commission. (2021). Asset and Wealth Management Activities Survey 2020.
94. SFC (2019). Guidelines on Online Distribution and Advisory Platforms
95. Tanda, A., & Schena, C.-M. (2019). *Fintech, BigTech and banks: digitalisation and its impact on banking business models*. Palgrave Macmillan.

96. Tata, F. (2020). *Corporate and investment banking: Preparing for a career in sales, trading, and research in global markets*. Springer Nature
97. Trade and Industry Department, The Government of HK SAR. (2021). *Small and medium enterprises (SMEs)*.
98. W.Up. (2018). *Segments of One: Customer Insights in Digital Marketing*.
99. Walker, T., & Morris, L. (2021). *The handbook of banking technology*. Wiley
100. Walker, T., & Morris, L. (2021). *The Handbook of Banking Technology*. John Wiley & Sons.
101. World Bank. (2018, August 23). World bank prices first global Blockchain bond, raising A\$110 million.
102. World Bank. (2019, August 16). World bank issues second tranche of Blockchain bond via bond-i.

Further Readings

1. eTradeConnect. (2018). *ETradeConnect*.
2. Basel Committee on Banking Supervision (BCBS). (2011, Jun) *Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems*.
3. Hong Kong Monetary Authority (HKMA) (2012, May 09) *Supervisory Policy Manual IC-5. Stress-testing*.
4. Hong Kong Monetary Authority (HKMA) (2018, Oct 19) *Supervisory Policy Manual AML-1. Supervisory approach on Anti-Money Laundering and Counter-Financing of Terrorism*.
5. Hong Kong Monetary Authority (HKMA) (2018, Oct 19) *Supervisory Policy Manual AML-2. Guideline on Anti-Money Laundering and Counter-Financing of Terrorism*.
6. Hong Kong Monetary Authority & Bank of Thailand. (2020, January). *Inthanon-LionRock – Leveraging Distributed Ledger Technology to Increase Efficiency in Cross-Border Payments*.
7. Hong Kong Monetary Authority (HKMA) (2021, Apr 23) *Supervisory Policy Manual CA-B-2. Systemically Important Banks*.
8. World Economic Forum. (2021, May 6). *Digital Assets, Distributed Ledger Technology, and the Future of Capital Markets*.
9. Hong Kong Monetary Authority (2021, July 29). *Supervisory policy manual: CR-G-5, CR-G-8, AML-1, AML-2*.