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Policy Framework for Financial Consumer Protection in Korea: Focusing on the Financial Consumer Protection Act of 2020*

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A B S T R A C T

In Korea, the unified Financial Consumer Protection Act (FCPA) was enacted in March 2020, and will come into effect in March 2021, to consolidate dispersed provisions relating to financial consumer protection under the relevant financial regulation laws such as banking law, capital market and securities law, and insurance business law, and to set up a new regime capable of further enhancing financial consumer protection. As a single unified law for financial consumer protection, the FCPA is considered a good model for other countries that are attempting to reform their financial consumer protection systems. In general, the FCPA establishes a robust framework to promote financial consumer protection, including (i) six principles for business conduct such as suitability rule and explanation duty, (ii) consumers' rights to terminate unlawful contracts, (iii) a financial supervisor's product intervention power, and (iv) improvements to the financial dispute mediation system. However, further enhancements to financial consumer protection are needed. Therefore, this article suggests additional improvements, including allowing binding mediation decisions and 'class' dispute mediation and establishing a twin-peaks regulatory model of financial regulation.

Keywords: Financial Consumer, Financial Consumer Protection Act, Financial Dispute, Financial Ombudsman, Suitability Rule, Appropriateness Rule, Duty to Explain, Financial Product Seller, Financial Advisor

Ⅰ. Introduction

In Korea, in March 2020, the integrated Financial Consumer Protection Act (FCPA) was enacted to come into effect in March, 2021, after long and tedious discussions on the National Assembly floor after the bill was first introduced in 2011, and proposed again by the government in 2017. Conflicts between relevant interested groups such as financial institutions and financial consumer civic groups, as well as further unresolved issues on reforming the financial regulatory system for promoting financial consumer protection, delayed its enactment. However, the recent cases in 2019 and 2020 of huge mis-selling of private hedge funds that inflicted large financial losses on financial investors prompted the National Assembly to enact the FCPA.

This new law consolidates several provisions or regulations dispersed in various relevant laws under the Bank Act for banks, the Capital Market and Financial Investment Business Act for securities companies and asset management firms, the Insurance Business Act for insurance companies, the Credit Specialty Financing Business Act for credit card companies, and the Mutual Savings Bank Act for mutual savings banks. In addition, the FCPA

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is introducing several new schemes for enhancing financial consumer protection, which is the main purpose of enacting the new single law.

In particular, the FCPA is adopting the "same-function-same-regulation" principle where as long as financial institutions selling financial products or providing financial advice engage in the same activities or conduct, the same regulations will apply to all financial institutions, regardless of their type. Further, the FCPA reflects the trends toward reinforcement of the financial consumer protection regime since the 2008 global financial crisis (GFC).

In retrospect, the background for the enactment of the FCPA dates back to the 2008 GFC that caused losses for many financial consumers and investors and also to the occurrence of several cases of mis-selling of financial products, including mis-selling of 'KIKO' (knock-out knock-in) currency option derivative products sold by banks to small- and medium-sized export companies in 2008,[1] mis-selling of subordinated bonds issued by mutual savings banks in 2011, mis-selling of investment products such as specified monetary trusts by DongYang Securities Co., Ltd. in 2013, mis-selling of derivative-linked fund products in 2019, and mis-selling of private hedge fund products in 2019 and 2020. These several mis-selling cases have greatly affected the enactment of the FCPA aimed at promoting financial consumer protection.

The main objective of this article is to analyze the FCPA and suggest some improvements for more enhanced financial consumer protection. With this goal, Part II reviews the main contents of the FCPA, Part III assesses the FCPA and recommends improvements for promoting financial consumer protection, and Part IV presents the conclusions.

[1] For more information and analysis of mis-selling cases of KIKO products, *see* Jung Hoon Kim, "Regulation of Mis-selling of Over-the-Counter Derivatives: Comparative Study of South Korea and the UK," Dissertation for the Degree of Doctor of Philosophy, University of Birmingham, Jan. 2019.

Ⅱ. Overview of the Korean Financial Consumer Protection Act (FCPA) of 2020

Overall, the FCPA reinforces regulations on the conduct of business in selling or providing financial advice on financial products, such as requiring registration for financial product sellers or financial advisors, mandating that financial companies set up a robust internal control scheme for financial consumer protection, and adopting six principles for conduct of business, including suitability rule and explanation duty principle. It enhances remedies for harmed financial consumers by introducing new schemes such as allowing financial consumers the rights for termination of unlawful contracts, and improving the financial dispute mediation system. It also seeks to reduce information asymmetry problems by imposing stronger disclosure requirements, expanding the scope and contents of financial products to be disclosed, and enhancing the financial education system. It further reinforces supervision by regulators upon whom great powers are conferred, such as the product intervention power and the right to set punitive administrative financial penalties. The following discussion details the new regime for financial consumer protection to be implemented by the FCPA 2020.

A. Entry Regulation - Registration Requirements for Financial Product Sellers and Financial Advisors

The FCPA requires financial companies or entities seeking to sell financial products or provide financial advice to their customers to register with the Financial Services Commission (FSC), a financial regulator, by satisfying certain requirements as prescribed by the FCPA and the regulations thereof. But, financial companies are exempt from this registration requirement if such business of selling financial products or providing financial advice is permitted under the relevant law applicable to such financial companies.[2] For example, since banks are allowed to engage in a business of insurance agency under the Insurance Business Act,[3] the banks are not required

[2] FCPA Art. 12.

to file a registration with the FSC.

The FCPA categorizes financial product sellers into two types: (i) direct sellers and (ii) agents or brokers for selling financial products. The direct sellers are financial firms or entities that directly sell financial products to their customers without using agents or brokers, such as manufacturers of financial products, including banks, securities firms and insurance firms.[4] For example, banks are able to directly sell financial products such as deposit or loan products manufactured by themselves to their customers.

The agents or brokers who sell financial products are financial companies or entities or even individuals, including individual deposit or loan brokers or insurance agents or brokers.[5] Banks as agents or brokers are able to sell financial products manufactured by securities firms, asset management companies or insurance firms to their customers. For example, banks are allowed to sell insurance products to customers under the Bank Act and the Insurance Business Act so that banks can be regarded as agents for insurance products under the FCPA.[6]

In addition, the FCPA introduces a new business category of advisors on financial products, such as independent financial advisors, who do not sell financial products but only provide advice on financial products which customers are interested in purchasing.[7]

B. Category of Financial Products

The FCPA categorizes financial products into four types: deposit-type financial products, loan-type financial products, investment-type financial products, and insurance-type financial products.[8]

Deposit-type financial products are deposit instruments provided by banks and mutual savings banks, including time or demand deposits and installment deposits, which are permitted to conduct such deposit business under the Bank Act and the Mutual Savings Bank Act, respectively, as well as financial products similar to deposit products as prescribed by the Enforcement Decree of the FCPA.[9]

Loan-type financial products are loan instruments provided by banks, mutual savings banks, and credit specialty financing companies, including credit card companies, leasing firms and installment financing companies,[10] which are allowed to engage in such lending business under the Bank Act, the Mutual Savings Bank Act, and the Credit Specialty Financing Business Act, respectively. They also include financial products similar to loan products as prescribed by the Enforcement Decree of the FCPA.[11]

Investment-type financial products are financial investment products such as securities and financial derivative products under the Capital Market and Financial Investment Business Act, as well as products similar to financial investment products, the principal of which is not guaranteed, as prescribed by the Enforcement Decree of the FCPA.[12]

Insurance-type financial products include insurance products such as life insurance products and casualty insurance products, provided by insurance companies, which are permitted to engage in such insurance business under the Insurance Business Act, as well as products similar to insurance products as prescribed by the Enforcement Decree of the FCPA.[13]

The FCPA intends to comprise new types of financial products subject to regulations by prescribing those in the regulations of the FCPA through a ‘similarity test.’ Thus, the role of the FSC as a financial regulator will be important since it will decide which products should be included in the scope of the regulated financial products.

C. Reinforcement of an Internal Control System of Financial Product Sellers and Financial Advisors

The FCPA reinforces an internal control system of financial product sellers and advisors for promoting financial consumer protection. Under this law, financial product

[3] Insurance Business Act Art. 91(1), Enforcement Decree Art. 40(1).
[4] FCPA Art. 2 Item 2 & 3.
[5] FCPA Art. 2 Item 2 & 3.
[6] Bank Act Art. 28, Enforcement Decree of Bank Act Art. 18-2, Insurance Business Act Art. 91(1), Enforcement Decree Art. 40(1).
[7] FCPA Art. 2 Item 4 & 5.
[8] FCPA Art. 3.

[9] FCPA Art. 3 Item 1.
[10] FCPA Art. 3 Item 2.
[11] FCPA Art. 3 Item 2.
[12] FCPA Art. 3 Item 3.
[13] FCPA Art. 3 Items 4.

sellers and financial advisors as prescribed by the Enforcement Decree of the FCPA are required to set up the internal control standards that their employees and agents or brokers should comply with in discharging their duties.[14] Further, financial product sellers and financial advisors as prescribed by the Enforcement Decree of the FCPA are required to stipulate the financial consumer protection procedures and standards which their employees should comply with when they conduct their business, in order to protect financial consumers by preventing financial consumers' complaints and procuring speedy remedies for inflicted financial consumers.[15] This framework is designed to promote financial consumer protection.

D. Adopting Six Principles for Conduct of Business

In order to protect financial consumers, the FCPA prescribes six principles or rules in respect of conduct of business for financial product sellers and financial advisors: suitability rule, appropriateness principle, duty to explain, prohibition of unfair business activities, prohibition of unfair recommendation activities in selling or providing advice on financial products, and restriction of unfair and unclear advertising.

1. Suitability Rule

The suitability rule, one of the most important principles in the regulation, applies to financial product sellers or financial advisors who sell or provide advice on insurance-type financial products, investment-type financial products and loan-type financial products. It excludes deposit-type products and applies only to unsophisticated financial consumers, not to accredited financial consumers.[16] Under this rule, financial product sellers or financial advisors are prohibited from recommending financial products not suitable to financial consumers when taking into account their assets or income, investment experiences, or creditworthiness, depending on the types of financial product.[17] Previously, this suitability rule was not applicable to loan-type financial products, but the new law expands this rule to such loan-type financial products.

2. Appropriateness Principle

The appropriateness principle, like the suitability rule, also applies to financial product sellers or advisors who sell or provide advice on insurance-type financial products, investment-type financial products and loan-type financial products, excluding deposit-type products and applying only to non-accredited financial consumers.[18] Under this principle, if financial products that consumers want to purchase are believed to be unsuitable for them (taking into consideration their assets or income, investment experiences or creditworthiness, depending on the types of financial product), financial product sellers or advisors are required to notify such financial consumers of the inappropriateness and then obtain their confirmation.[19]

3. Duty to Explain

The duty to explain applies to all types of financial products, but only for unsophisticated financial consumer s.[20] Financial product sellers or advisors are required to explain details of financial products as prescribed by the FCPA and the Enforcement Decree thereof, including the interest rate or its change and prepayment penalties in case of loan-type financial products, when they recommend financial products to their financial consumers or the consumers request them to do so.[21]

4. Prohibition of Unfair Business Activities

Financial product sellers or financial advisors are prohibited from conducting unfair business activities, such as activities forcing financial consumers to execute contracts against their will or requiring unfair collaterals in relation to executing contracts in cases of loan-type financial products, and other activities infringing on rights of financial consumers, taking advantage of financial companies' superior powers.[22]

[14] FCPA Art. 16(2).
[15] FCPA Art. 32(3).
[16] FCPA Art. 17(1), (2).
[17] FCPA Art. 17(3).
[18] FCPA Art. 18(1).
[19] FCPA Art. 18(2).
[20] FCPA Art. 19(1).
[21] FCPA Art. 19(1).
[22] FCPA Art. 20(1).

5. Prohibition of Unfair Recommendation Activities

Financial product sellers or financial advisors are prohibited from providing unfair recommendation activities in selling or providing advice on financial products, including misrepresenting the contents of financial products, providing misleading information on financial products, providing only favorable information on financial products, and comparing with other financial products without any objective grounds or without disclosure of comparison standards on financial products.[23]

6. Fair and Clear Advertising Regulation

Financial product sellers or financial advisors are required to make advertising fair and clear on financial products, without misleading financial consumers' understanding of financial products.[24] Also, the FCPA prescribes certain elements to be listed in the advertisements, including contents of financial products, names of financial product sellers or advisors, investment risks in case of investment-type financial products, and terms of loans in case of loan-type financial products.[25]

E. Regulations on Conduct of Business for Financial Advisors

The FCPA introduces a regulated category of a financial advisor who provides financial advisory services to consumers with respect of all types of financial products, especially an independent financial advisor who has not relationship with financial product sellers or manufacturers. Of course, currently, there exist financial investment advisors who provides advisory services with respect to investment financial products such as securities and financial derivatives under the Capital Markets and Financial Investment Business Act. The FCPA expands the regulations of financial investment advisors into financial advisors dealing with all types of financial products, including loan-type financial products.

The FCPA, particularly, stipulates the standards of business conduct which financial advisors should adhere to. Financial advisors must provide financial advice with due care for the best interests of financial consumers.[26] Further, in providing financial advisory services, financial advisors are required to notify financial consumers of, among others, (i) whether they are independent financial advisors, (ii) the scope of financial products on which financial advice is provided, and (iii) the size and kinds of monetary benefits if such benefits are provided by financial product sellers.[27] The FCPA also lists prohibited activities of independent financial advisors, such as prohibition of receiving monetary benefits from financial product sellers, including their employees, except in certain minor cases, and other activities that may cause conflicts of interest with their financial consumers.[28] These prohibitions aim to maintain independent financial advisors' independence from financial product sellers or manufacturers, preventing unfair influences from them.

F. Reinforcement of Remedies for Financial Consumers

The FCPA introduces new several schemes to promote financial consumer protection, particularly for the purpose of reinforcing remedies for financial consumers who are damaged by mis-selling behaviors of financial product sellers or by advice activities of financial advisors. For example, this new law allows financial consumers the right to terminate unlawful contracts within five years after execution of contracts when it is discovered that financial product sellers or advisors had violated the relevant provisions regarding the suitability rule, duty of explanation, appropriateness rule, unfair business activities, or unfair recommendation activities.[29] This new regime might significantly contribute to promoting financial consumer protection, although this will be harmful or burdensome to financial product sellers or advisors. However, the cases of disputes in which financial service providers violated those provisions may increase, even leading to complicated legal issues. Hence, a regime for resolving such disputes needs to be developed by, for example, creating an internal special review and decision

23 FCPA Art. 21.
24 FCPA Art. 22(2).
25 FCPA Art. 22(3).
26 FCPA Art. 27(1), (2).
27 FCPA Art. 27(3).
28 FCPA Art. 27(5).
29 FCPA Art. 47(1).

committee in financial institutions, the main role of which is to determine whether financial companies' violations trigger financial consumers' termination of contracts.

In addition, the FCPA confers upon financial consumers the right to withdraw their offers to contracts regarding those financial products except for deposit-type financial products, within 7, 10, or 15 days, depending on the types of contract, after execution of the contracts.[30] This is also expected to provide financial consumers with more benefits in terms of enhancing financial consumer protection. However, cases of disputes over satisfaction of the terms to withdraw the offers between financial product sellers and financial consumers may increase. Hence, like financial consumers' termination of contracts, a scheme for determining whether financial consumers' withdrawals of the offers satisfy the terms of contracts should be invented.

Further, the FCPA stipulates that financial product sellers or financial advisors are liable for damages incurred by financial consumers due to product service providers' violation of the FCPA regulations, if willful or negligent.[31] Particularly, financial product sellers or financial advisors are liable for damages to financial consumers due to violation of the duty to explain unless they prove their violation was perpetrated without intent or negligence.[32] In other words, the responsibility for the proof is on financial service providers so that financial consumers do not have to show that financial service providers violated the duty to explain with intent or negligence. In addition, direct sellers of financial products are liable for damages to financial consumers due to their agents or brokers' activities unless they prove that they discharged their duties to supervise their agents or brokers with due care and then exerted efforts to prevent damages to consumers.[33]

G. Improvements for Operating a Financial Dispute Mediation Scheme as an ADR

The FCPA implements new measures to upgrade efficiency in the financial dispute mediation system for consumers who are damaged from mis-selling of financial products by financial institutions such as banks, securities firms and insurance companies. Currently, the financial dispute mediation scheme is conducted by the Financial Dispute Mediation Committee (FDMC) within the Financial Supervisory Service (FSS), another non-governmental financial regulator mainly dealing with examinations and sanctions on financial institutions.

The FCPA introduces two new regimes to pursue a more efficient financial dispute resolution system. First, the FCPA introduces a new scheme where a court is able to order suspension of the litigation process for a case which is still in the process of financial dispute mediation.[34] Second, the FCPA prohibits financial institutions from bringing a lawsuit to a court for cases of disputed amounts below 20 Million Won (approximately US$17,000) initiated by unsophisticated financial consumers, that are still in the process of financial dispute mediation.[35] This newly introduced system is assessed to be a measure to give more protection in the financial dispute resolution system, taking into account financial consumers' weak position compared with financial institutions.

H. Measures for Reducing Information Asymmetry for Financial Consumers

The FCPA also seeks to improve the financial education system for financial consumer protection and to resolve the problems of information asymmetry, which refers to "imbalance of information between insiders, who have direct access to information about the benefits and risks of particular products or industries, and outsiders, who lack such information."[36] The Financial Education Council consisting of officials from other relevant government departments is established for reviewing and making a resolution on financial education policy, and is sponsored by the FSC.[37] The FCPA also requires the FSC to set up a national financial education plan and strategy, reflecting investigative reports on financial consumers' ability

30 FCPA Art. 46(1).
31 FCPA Art. 44(1).
32 FCPA Art. 44(2).
33 FCPA Art. 45(1).

34 FCPA Art. 41.
35 FCPA Art. 42.
36 William Magnuson, "Financial Regulation in the Bitcoin Era," *Stanford Journal of Law, Business & Finance*, Vol. 23. No. 2, 2018, pp. 178-179 ("Asymmetric information can lead to market failure if insiders are able to extract rent from outsiders, or alternatively, if outsiders refrain from entering into the markets at all.").
37 FCPA Art. 31.

and knowledge in finance every three years.[38]

Further, the FCPA expands the scope and contents subject to comparison of financial products, the details of which will be prescribed in the Enforcement Decree of the FCPA, in order to provide financial consumers with more information disclosure on financial products.[39]

I. Reinforcement of Financial Supervision

The FCPA gives stronger powers to financial supervisors, recognizing a need to strengthen financial supervision of financial companies' business conduct which create damages or losses to financial consumers. For example, the FCPA bestows the FSC with a product intervention power that allows the FSC to make an order prohibiting or restricting the sale of financial products if the FSC deems that such sale is highly likely to inflict damages on financial consumers.[40] This is modeled after the UK's product intervention power under the Financial Services and Markets Act 2000.[41] It also introduces a punitive administrative financial penalty scheme by imposing financial penalties up to the maximum 50% of relevant total revenues when direct sellers of financial products or financial advisors engage in unlawful business conduct such as violation of the explanation duty, unfair business activities, unfair recommendations, or violation of advertising regulations.[42]

Ⅲ. Assessment of the FCP Act and Future Tasks

A. Assessment of the FCP Act 2020

Overall, it can be assessed that the FCPA has introduced new 'reformative' schemes for enhanced protection of financial consumers, who are in a weak position relative to financial service providers. Nevertheless, the incidence of disputes or conflicts between financial consumers and financial institutions may increase in the process of enforcing the regulations introduced by the FCPA. For example, in exercising consumers' rights to withdraw an offer for purchasing financial products, cases of disputes on the satisfaction of the conditions for withdrawal may increase. Further, in the matter of consumers' rights to terminate unlawful contracts due to financial product sellers' violations of principles of business conduct such as the suitability rule or explanation duty, disputes between financial consumers and financial product sellers over whether a specific conduct was in violation of the relevant provisions in the FCPA may increase.

Thus, a more efficient regime for resolving such disputes needs to be set up. In this connection the roles of the regulators, the FSC and the FSS, will become more important. So, for setting-up a framework for more effective regulation and supervision in enforcing the FCPA, the current inefficient 'vertical dual regulatory system' of the FSC and the FSS should be improved, in order to prevent previous incidents, such as not being able to prevent cases of mis-selling of financial products and insolvencies of mutual saving banks. We need to create a more independent and specialized supervisor. In this context, we may consider establishing a twin-peaks financial regulatory system, which establishes two separate regulators, a prudential regulator and a business conduct regulator, the latter of which will focus more on financial consumer protection. This author believes that a twin-peaks regulatory scheme will be the best model for protecting financial consumers.

B. Suggestions for Reform of the Financial Dispute Mediation Scheme

With respect to promoting financial consumer protection, an efficient system needs to be established to procure remedies for financial consumers' harms caused by financial companies' unfair or illegal activities. Financial consumers may seek legal remedies through the court; however, this procedure is very costly and takes a long time for resolution. Instead, an alternative dispute resolution (ADR) system may be preferable because the ADR is significantly less expensive and faster than litigation procedures in court. The ADR system will be an efficient tool to provide remedies for consumers in financial dispute

38 FCPA Art. 30(3), (4).
39 FCPA Art. 32.
40 FCPA Art. 49(2).
41 Section 137D.
42 FCPA Art. 57(1).

cases, taking into account the features of these cases, which entail small disputed amounts and many affected consumers. In this connection, the current financial dispute mediation scheme should be improved as discussed below.

1. Creating an Independent Financial Dispute Mediation Agency

It is necessary to create a new independent financial dispute resolution agency by separating the mediation function currently conducted by the FDMC within the FSS from the FSS organization. The FSS as a financial regulator currently operates this mediation system in the matter of financial disputes.[43] One of the advantages of the mediation scheme operated by the FSS is that if both disputing parties accept the decisions offered by the FDMC as a mediator, then the resolution award becomes legally binding without further recourse to the court.[44] However, the current mediation scheme lacks fairness in that the regulator operates this system. The regulated financial firms are highly likely to be burdened by the 'implicit' pressure from the regulator to accept the decision proposed by the FDMC. The current system also lacks specialization in the matter of financial mediation, because financial dispute settlement is not regarded as an important function within the FSS organization as compared with prudential regulation and business conduct regulation. So, it is more difficult to retain qualified staff, including legal experts, who are eligible to handle the legal issues of disputed cases.

This necessitates the establishment of a system where injured financial consumers are impartially and sufficiently protected through a fair financial dispute mediation procedure. To achieve this, the mediation system needs to be handled by an independent institution, rather than by a supervisor. Thus, the financial dispute mediation function should be separated from the FSS, and a new independent agency should be established under the auspices of a regulator. Securing such impartiality and specialization will promote reliability of mediation procedures so that financial consumers should prefer the mediation procedure to the court system. Comparatively, the UK and Australia have set up their respective independent financial dispute resolution agencies, called the Financial Ombudsman Service, to be operated independently, although it is under the auspices of the regulators.[45]

2. Requiring the FDMC's Decisions to be Binding on Financial Institutions

To promote protection of financial consumers, we need a new scheme that the FDMC's decisions should be binding on financial institutions once a financial consumer accepts such decisions in cases with a small disputed amount (for example, below 30 Million Won). This argument is persuasive in that we need to protect financial consumers who are weak parties against financial institutions. When financial companies are not satisfied with a mediator's proposal for the settlement, they are usually inclined to bring the case to the court rather than accepting the mediator's proposal. Then, in that case, weak financial consumers do not have any other choice but to defend a lawsuit brought by financial institutions, which is very costly and disadvantageous to financial consumers.

Of course, the counterargument may be raised that imposing binding decisions on financial institutions violates their rights to bring litigation, as permitted under the Korean Constitution.[46] However, if we introduce this system only for disputed cases involving small amounts, this counterargument will not be so persuasive because the Constitution allows some restrictions on people's basic rights, including the rights of bringing litigation, for public policy purposes, which may include the policy for pursuing protection of weak financial consumers.[47]

Comparatively, the UK imposes binding decisions in financial dispute cases under the Financial Services and Markets Act 2000, providing that "if the complainant notifies the ombudsman that he accepts the determination, it is binding on the respondent and the complainant and is final."[48] In Australia, binding decisions are also permitted under the Compliant Resolution Scheme Rules issued by the Australian Financial Complaints Authority (AFCA),

[43] Financial Services Commission Establishment Act, Art. 51. The relevant clauses of this Act regarding a financial dispute mediation scheme will be moved into the FCPA to be effective on March 2021.

[44] Financial Services Commission Establishment Act, Art. 55.

[45] Section 225, Schedule 17 of Financial Services and Markets Act 2000; Financial Ombudsman Service, 'About us,' <http://www.financial-ombudsman.org.uk>; Financial Ombudsman Service, 'About us,' <http://www.fos.org.au/centric/homepage.jsp>.

[46] Constitution Art. 27(1).

[47] Constitution Art. 37(1).

[48] Section 228(5) of Financial Services and Markets Act 2000.

prescribing that "A Determination by an AFCA Decision Maker is a final, and is binding upon the parties if accepted by the Complainant within 30 days of the Complainant receives the Determination."[49] Hence, based on the UK and Australia's legal structure, such proposal may be accepted in Korea, too.

3. Requiring a Mediation Procedure Before Bringing a Lawsuit

We also need to introduce a new scheme that a mediation procedure must be engaged in before bringing an action to a court in case of financial dispute cases of an amount less than 30 Million Won. As emphasized above, most financial dispute cases entail the characteristics of small disputed amounts and many financial consumers involved. Litigation is not appropriate for resolving these kinds of financial disputes. Rather, a mediation as an ADR is a more effective method of procuring remedies for financial consumers.

A critique can be presented that this new scheme may violate the Korean Constitution, which guarantees the right to bring an action to a court.[50] But, if we restrict the requirement to those disputed cases involving small amounts, we may overcome such controversy as argued above.

4. Introducing a 'Class Mediation Scheme' for Financial Disputes

We also need to introduce a 'class mediation scheme' where a mediation decision applies to all consumers involved in the same financial dispute case where at least fifty damaged consumers are involved in such a dispute in terms of legal or factual issues, although they have not made complaints to the FDMC. The consumer protection rationale for this argument is as follows: most financial dispute cases entail small amounts of loss for each consumer, but many financial consumers involved. Therefore, an expensive lawsuit that takes a long time to reach judgement is not an appropriate method to provide remedies for inflicted financial consumers. Hence, this author believes that the introduction of a new scheme of class mediation will significantly enhance financial consumer protection.

49 Complaint Resolution Scheme Rules dated on April 25, 2020, Section A15.3.

50 Constitution Art. 27(1).

C. Suggestions for Creating a Twin-Peaks Regulatory Regime for Promoting Financial Consumer Protection

To enhance financial consumer protection, a twin-peaks regulatory model needs to be introduced, because this system can focus more on business conduct regulation whose main function is to protect financial consumers. The twin-peaks model has a structure of two regulators: a prudential regulator and a conduct of business regulator. The former focuses mainly on prudential regulation of financial firms, while the latter specializes in regulating business conduct of companies selling financial products and in supervising capital and securities markets.[51] This scheme has been operated in a few jurisdictions, including Australia,[52] the Netherlands,[53] New Zealand,[54] and the UK.[55]

Of course, the twin-peaks model possesses both advantages and drawbacks. As to the advantages, we may assess that each supervisor is able to pursue specialization in the respective field by focusing more on their respective tasks. However, drawbacks include the following: (i) regulatory 'underlap' in which some areas are not covered by either regulator; (ii) regulatory duplication, which places additional regulatory burdens on financial institutions; (iii) lack of cooperation between two supervisors; and (iv) problems in sharing financial information between two supervisors.[56]

Notwithstanding such shortcomings of this model, in terms of enhancing financial consumer protection, the

51 Heidi M. Schooner & Michael W. Taylor, *Global Bank Regulation,* Elsevier, 2010, p. 267.

52 Group of Thirty, *The Structure of Financial Supervision: Approaches and Challenges in a Global Marketplace,* 2008, pp. 188-196. Further, for discussions how to enhance the efficacy of consumer protection within the twin-peaks regulatory system in Australia, *see* Andrew Schmulow, "Regulating the Regulator: Improving consumer protection under a Twin Peaks regulatory framework," *The International Review of Financial Consumers*, Vol.3 Issue.1, April 2018, pp. 1-9.

53 Hugo Oppelaar, "Financial Services: Regulators Reshape to Match Consolidation," *Int'l Fin. L. Rev.,* May 23, 2005.

54 Reserve Bank of New Zealand, "Briefing on the Reserve Bank of New Zealand," Dec. 2011, pp. 21-22. < http://www.rbnz.govt.nz/about/whatwedo/4663879.pdf >.

55 Andrew Bailey, Sarah Breeden & Gregory Stevens, "The Prudential Regulatory Authority," *Quarterly Bulletin,* Bank of England, Dec. 2012, p. 1. <http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/qb120405pre.pdf.>.

56 Dong Won Ko, "Financial Regulatory Reforms in Korea Responding to the 2008 Global Financial Crisis: Are They Following the Global Trends?," *Asian Pacific Law Review*, Dec. 2014, pp. 41-42.

proposed specialization will give this system a more efficient structure. However, this goal needs to be achieved by setting up an institutional scheme to resolve such problems or drawbacks, where mutual agreement between two regulators in a type of memorandum of understanding is implemented. This may include agreements on cooperating, enhancing information sharing, abolishing regulatory duplication, and resolving areas of regulatory underlap.

Ⅳ. Conclusion

Although we may need to wait to judge the performance gains from enacting the unified FCPA, the FCPA as written contains promising new schemes for reinforcing financial consumer protection. In particular, since the FCPA is an integrated statute containing a new framework for promoting financial consumer protection, it may be a good model for other jurisdictions that seek to reform their respective financial consumer protection systems.

However, further changes need to be implemented to create a more robust financial consumer protection scheme. For example, the introduction of a 'class action' regime in the matter of financial consumer protection and punitive damage remedies for financial consumers in lawsuits remains controversial. Further, since the FCPA generally reinforces the financial consumer protection scheme, it may place great burdens on financial institutions to comply with the new law so that we may not exclude the possibility of increased disputes between financial institutions and financial consumers. In that sense, we need to set up a new framework to efficiently resolve those disputes and further to establish an effective system of financial regulators who should play an important role in enforcing the FCPA. Therefore, this article strongly argues that the current financial regulator system that is causing many problems in terms of enforcing financial law, including several serious cases of mis-selling of financial products, should be improved and then a twin-peaks scheme for financial regulators should be set up.

In sum, the FCPA is a product of the Korean government's efforts to promote financial consumer protection after the 2008 GFC and the experiences of several serious cases of mis-selling of financial products. This author is hopeful that the FCPA will greatly enhance financial consumer protection.

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Consumer financial well-being in South Africa's Twin Peaks regulatory regime: from measurement to confidence in outcomes

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A B S T R A C T

This paper examines aspects of consumer protection in the financial services industry in South Africa. First, the paper briefly outlines the reforms to the financial regulatory architecture in South Africa: the adoption of Twin Peaks. Next, the paper provides an account of the Treating Customers Fairly (TCF) regime, and the manner in which that has served as the groundwork for the Twin Peaks reforms. In the third part a description and analysis is provided of the sources of data available to the consumer protection regulator in South Africa. In the final part a description and explanation is provided of a comprehensive indicator framework being developed in South Africa to measure customer outcomes. This will be the first such framework of its kind in the world. The writer provided the thought-leadership for the development of this framework, in conjunction with a joint South African-Australian management consultancy (DBA), and in partnership with the Consultative Group to Assist the Poor (CGAP), a division of the World Bank.

Keywords: Twin Peaks, financial system regulation, Treating Customers Fairly, TCF, consumer protection, consumer financial well-being, Financial Sector Regulation Act, Conduct of Financial Institutions Bill, CoFI

Ⅰ. Introduction

While there is agreement that financial services firms must demonstrate the efficacy of their policies for, and their commitment to, consumer financial well-being, unless financial well-being is measured, how can we know that these commitments are effective? Moreover, how can we know that consumer financial well-being is improving, unless well-being is consistently tracked and measured?

The reasons why these goals are important should be viewed within a broader, higher-level context: it is consumer financial well-being that should be the ultimate goal, not the protection of the financial industry, or the promotion of the industry's interests, *per se*. As the Chair of Australia's version of the SEC - ASIC, the Australian Securities and Investments Commission - stated at the time of his appointment: "The financial industry must serve the community, not the other way round [paraphrased]."[1]

Work in which the writer has been involved, and recently undertaken[2] in this space, has been focused on

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[1] Patrick Durkin, "James Shipton appointed ASIC chairman", 'News', *Australian Financial Review*, 17 October, 2017.

[2] The writer partnered with a joint Australian-South African consulting firm (DBA) and the Consultative Group to Assist the Poor (CGAP), a division of the World Bank, from November 2019 to June 2020.

consumer financial well-being in South Africa. South Africa is currently rolling out the Twin Peaks model of financial regulation, based to a large extent upon the financial system regulatory architecture that was pioneered in Australia.[3] Whilst this model was first implemented in Australia, it was not devised by an Australian. Rather, it was devised by an Englishman by the name of Michael Taylor,[4] and proposed originally for adoption in the United Kingdom. Despite this intention, Twin Peaks was adopted first in Australia, and only much later in the United Kingdom,[5] and thereafter, and most recently, in South Africa.

Twin Peaks is in fact a misnomer. It is more accurately described as a Triple Peak model, comprising: one peak with responsibility for the prudential soundness of banks and insurers; a second peak with responsibility for consumer protection and good market conduct (hereinafter simply 'conduct'); and the central bank as the third peak, with responsibility as lender of last resort. The first and third peaks have complementary responsibility for financial system stability from a micro- and macro- perspective respectively. The two (plus one) peak model is now clearly discernible in South Africa, with the creation of the Prudential Authority (PA), the Financial Sector Conduct Authority (FSCA), and the South African Reserve Bank (SARB), as the third peak.

As a precursor to our work with CGAP and the World Bank, the author was consulted on the drafting of the aptly named *Conduct of Financial Institutions Bill*[6] (CoFI) in South Africa, as a member of the panel of independent experts convened by South Africa's National Treasury. CoFI is currently in Bill form, and the aim of that legislation, as the title implies, is to compel good conduct amongst financial institutions in South Africa. The Bill itself is based, and draws heavily on, the *Treating Customers Fairly* (TCF) regime, which was first implemented in the United Kingdom in 2005, and then copied in South Africa in 2011.[7]

Ⅱ. Laying the groundwork: TCF

The Treating Customers Fairly regimes, both in the United Kingdom and in South Africa, rest on six core principles. The wording of those six principles is almost identical by comparison between the two countries. They focus, on the whole, on the product life cycle, which

Project # 1264848: *Application of Customer Outcomes Based Regulatory and Supervisory Approach in South Africa*.

[3] For more on South Africa's adoption of the Twin Peaks model see: Financial Regulatory Reform Steering Committee, "Implementing a twin peaks model of financial regulation in South Africa", series edited by the Financial Services Board, 1 February 2013; National Treasury, Republic of South Africa "Twin Peaks in South Africa: Response and Explanatory Document - Accompanying the Second Draft of the Financial Sector Regulation Bill", in *National Treasury Policy Document*, December 2014; Andrew Schmulow, "Financial Regulatory Governance in South Africa: The Move Towards Twin Peaks", *African Journal of International and Comparative Law*, Vol. 25, no. 3 (1 August, 2017); Andrew J. Godwin & Andrew D. Schmulow, "The Financial Sector Regulation Bill In South Africa, Second Draft: Lessons From Australia", *South African Law Journal*, Vol. 132, no. 4 (9 October, 2015); Andrew Schmulow, "Retail Market Conduct Reforms in South Africa Under Twin Peaks", *Law and Financial Markets Review*, Vol. 11, no. 4 (3 January, 2018); A. J. Godwin, T. Howse & I. Ramsay, "Twin Peaks: South Africa's Financial Sector Regulatory Framework", *South African Law Journal*, Vol. 134, no. 3 (August, 2017); Gail Pearson, "Making prudence: Consumer credit and twin peaks, a comparison of Australia and South Africa", *Journal of Banking and Finance Law and Practice*, Vol. 27, no. 3 (November, 2016); A. D. Schmulow, "Twin Peaks plus other means will strengthen SA", 'Opinion & Analysis', *The Star*, Late Edition, 19 March, 2015; A. D. Schmulow, "New Twin Peaks model: The Big Bang of SA's financial industry", *South African Business Integrator*, 31 August, 2018. For more on Twin Peaks see: Michael Taylor, "Welcome to Twin Peaks", *Central Banking Journal*, Electronic Article, Vol. 21, no. 1 (17 August, 2010); Michael W. Taylor, ""Twin Peaks": A regulatory structure for the new century", series edited by the Centre for the Study of Financial Innovation, no. 20, December 1995; Michael W. Taylor, "The Road from "Twin Peaks" - and the Way Back", *Connecticut Insurance Law Journal*, Vol. 16, no. 1 (2009-2010); A.D. Schmulow, "Twin Peaks: A Theoretical Analysis", *CIFR Research Working Paper Series*, no. 064/2015 / Project No. E018, Centre for International Finance and Regulation (CIFR), (July, 2015); Andrew D. Schmulow, "The Four Methods of Financial System Regulation: An International Comparative Survey", *Journal of Banking and Finance Law and Practice*, Vol. 26, no. 3 (8 December, 2015); Andrew Godwin, Timothy Howse & Ian Ramsay, "A jurisdictional comparison of the twin peaks model of financial regulation", *Journal of Banking Regulation*, Vol. 18, no. 2 (1 April, 2017); Andrew Schmulow, Virginia Dore, Jacob Reardon & William Hanna, "AFCA: The first foothill between Australia's Twin Peaks", *Law and Financial Markets Review*, Vol. 14, no. 3 (15 September, 2020); Andrew D. Schmulow & James O'Hara, "Protection of Financial Consumers in Australia", in *An International Comparison of Financial Consumer Protection,* edited by Tsai-Jyh Chen, 2018.

[4] See fn 3, above.

[5] Michael W. Taylor, "Regulatory Reform in the UK", *North Carolina Banking Institute*, Vol. 18, no. 1 (November, 2013).

[6] *Conduct of Financial Institutions Bill*, 2020, (Republic of South Africa).

[7] Andrew Schmulow, "Treating Customers Fairly (TCF) in the South African Banking Industry: Laying the Groundwork for Twin Peaks", *African Journal of International and Comparative Law*, Vol 21, 2021 (forthcoming).

Table 1. Treating Customers Fairly principles: United Kingdom v South Africa

TCF in the United Kingdom[8]	TCF in South Africa[9]
Outcome 1 Consumers can be confident that they are dealing with firms where the fair treatment of customers is central to the corporate culture.	**Outcome 1** Customers are confident that they are dealing with firms where the fair treatment of customers is central to the firm culture.
Outcome 2 Products and services marketed and sold in the retail market are designed to meet the needs of identified consumer groups and are targeted accordingly.	**Outcome 2** Products and services marketed and sold in the retail market are designed to meet the needs of identified customer groups and are targeted accordingly.
Outcome 3 Consumers are provided with clear information and are kept appropriately informed before, during and after the point of sale.	**Outcome 3** Customers are given clear information and are kept appropriately informed before, during and after the time of contracting.
Outcome 4 Where consumers receive advice, the advice is suitable and takes account of their circumstances.	**Outcome 4** Where customers receive advice, the advice is suitable and takes account of their circumstances.
Outcome 5 Consumers are provided with products that perform as firms have led them to expect, and the associated service is both of an acceptable standard and as they have been led to expect.	**Outcome 5** Customers are provided with products that perform as firms have led them to expect, and the associated service is both of an acceptable standard and what they have been led to expect.
Outcome 6 Consumers do not face unreasonable post-sale barriers imposed by firms to change product, switch provider, submit a claim or make a complaint.	**Outcome 6** Customers do not face unreasonable post-sale barriers to change product, switch provider, submit a claim or make a complaint.

is a more extensive cycle than the customer journey: the product life cycle begins before a customer is involved, when the product is first devised or conceived. But there are also TCF strictures that apply, or that seek to drive conduct, at the level of firm culture and firm governance. So, for example, outcome number one (Table 1) requires that customers be confident that they are dealing with firms in which the fair treatment of customers is central to the firm's culture.

Outcome two requires that products and services are sold, marketed and designed to meet the needs of identified customer demographics, and that they are targeted appropriately.

Outcome three requires that customers be given clear and appropriate disclosure (which includes use of plain English, and where important disclaimers and limitation of liability clauses are used, that those be made prominent and are not buried in fine print); and that consumers be appropriately informed before, during and after the time that they contract with the company.

Where customers receive advice, outcome four requires that the advice must not only be suitable, but must take account of the customer's circumstances, for example: their level of financial sophistication; level of education; financial literacy; or their needs.

Outcome five requires that customers be provided with products and services that perform as they have been led to believe they will, and that the service associated with those products and services is acceptable. Typically, this would include the difficulty and time spent in contacting the provider, and length of time taken to respond to enquiries.

Finally, outcome six requires that consumers do not face unreasonable post-sale barriers to change to a different product; switch providers; submit a claim; or, crucially, lodge a complaint.

Because South Africa is a developing country, with a large number of highly vulnerable financial consumers who have traditionally been excluded from the financial system, these requirements are also interpreted to include

8 Financial Services Authority, United Kingdom, "Treating customers fairly - towards fair outcomes for consumers", in *Treating Customers Fairly*, no. 2624, Financial Services Authority, July 2006, p. 3.

9 Financial Services Board, Republic of South Africa, "Treating Customers Fairly. The Roadmap", in *Financial Services Board Policy Document*, Financial Services Board, 31 March 2011, p. 7.

the goal of increasing financial inclusion. That requires facilitating access to financial products and services for those members of the community traditionally excluded from equitable participation in the financial system.

Significantly, in the United Kingdom TCF has had the force of legislation,[10] whereas in South Africa the TCF regime was aspirational, and evaluated by self-assessment.[11] That is set to change, however, as these requirements will henceforth be codified in the forthcoming *Conduct of Financial Institutions Act*. But in order to determine whether financial service providers (FSPs) are in compliance with these principles, the conduct regulator, the Financial Sector Conduct Authority (FSCA), will need to be able to measure progress; conduct thematic reviews of the industry; and to conduct risk assessments - the risk that certain products and services may pose to the public. Moreover, the regulator will need to be able to do so in respect of risks identified *ex ante*, and not only in respect of breaches *ex-post*. Put simply, the regulator needs to be able to see risks that have not yet eventuated, but that are likely to eventuate.

Ⅲ. An 'as is' situational review of data sources for the South African Financial Sector Conduct Authority

In late 2019 the writer was approached by CGAP to lead, and partner on, a project to devise a framework of indicators to measure customer outcomes in the South African financial industry.

First, we examined the sources from where the South African market conduct and consumer protection regulator, the FSCA, obtains information. That evidenced an extensive set of inputs, including: from other regulators; information collected from on-site and off-site supervision; their own data-analytics; questionnaires; and an already existing conduct of business review (COB) for the South African insurance industry. That conduct of business review tracks, *inter alia*, TCF implementation and compliance.

There existed already highly detailed and fulsome cooperation from six different South African Ombud schemes: the Ombud for long-term insurance;[12] the Ombud for short-term insurance;[13] the banking ombud;[14] the financial advisors and intermediaries Ombud;[15] an Ombud for credi t[16] (as distinct from the Ombud for banking); and a pensions industry Ombud[17] (designated as an 'Adjudicator'). It is noteworthy in this regard that while South Africa is a developing country with many of the typical challenges that developing countries face (such as corruption and maladministration), its constellation of Ombuds is highly sophisticated, staffed by highly-qualified individuals, with, in our view, exceptional leadership. Each of the Ombud schemes that we assessed was found to be in possession of rich and extensive data that afforded deep and longitudinal insights into TCF compliance across the industry over which they have jurisdiction. Those insights were capable of being *mined* in a myriad of different ways: by TCF category; by sub-categories; by root cause; by service; by product; and by provider. Of particular interest - and from a consumer benefit / deterrence of misconduct perspective - was the practice by each Ombud of regularly identifying FSPs in their determinations and their annual reports. This *naming and shaming* culture adhered to by South Africa's Ombuds is, we believe, a powerful adjunct in driving improved conduct in each sector of the financial industry. Of further note in our assessments of South Africa's Ombuds was their overall, whole-of-entity culture, which we assessed to be fearless in approach to holding the industry over which they have jurisdiction accountable. We also found, across the gamut of Ombud schemes, a high degree of motivation to assist - at times at their own initiative - the FSCA, in order to drive good consumer outcomes in the financial industry. Finally, the FSCA receives input from civil society groups, and from other government departments, such as the National Credit Regulator.

In respect of civil society groups, this is an area in

[10] Through regulatory enactments such as: Financial Conduct Authority, "Principles for Businesses - FCA Handbook", Release 54, September 2020, and pursuant to: *Financial Services and Markets Act*, Chapter 8 of 2000, (United Kingdom of Great Britain and Northern Ireland), s 1C; 5.

[11] See fn 7, above.

[12] https://www.ombud.co.za.

[13] https://www.osti.co.za.

[14] https://www.obssa.co.za.

[15] https://faisombud.co.za.

[16] https://www.creditombud.org.za.

[17] https://www.pfa.org.za.

which South Africa is, unfortunately, largely un-developed. Civil society groups that tackle consumer welfare are virtually non-existent. There exist *law clinics* at various leading universities,[18] but little else. In respect of co-operation and support from other regulators, arguably the most important is that of the National Credit Regulator.[19]

In addition, the FSCA is able to look to media and social media.[20] There are sentiment indices, such as HelloPeter,[21] which the regulator is able to interrogate. There are also reports from time to time from the Competition Commission, and from trade associations.[22] All of these data sets contribute to the regulator's ability to evaluate the industry and individual FSPs against the core goals of the FSCA, as elucidated in the legislation and regulations (such as the Banking Standard), that they are empowered to issue.[23] To that end South Africa, like Australia, whose regulatory model South Africa has copied, has a regulator that is empowered to issue[24] what are termed 'Standards', and those standards have force of law.[25]

In addition to the information that the conduct authority is able to garner, and in a separate work-stream, we conducted detailed consultations over a period of six months with five financial service providers: Capitec Bank and Nedbank, both of which are big five South African banks;[26] Metropolitan Life and Old Mutual, which are both a short- and long-term insurer; and KGA Life, which is a life insurer. Despite the fact that South Africa is a developing country, it has a highly sophisticated, developed-world style financial industry,[27] and this was reflected in the sophistication and depth of the data that these FSPs track, engage, and retain. Much of this data was relatable to TCF outcomes and adherence.

Ⅳ. The Indicator framework

In a partnership between the writer, DBA, CGAP and the World Bank, we were able to devise a set of 157 customer-outcomes indicators. Each one of these is a type of information that can be delivered to the FSCA by FSPs.

For the purposes of this paper, Table 2 provides a brief snapshot of four indicators that relate to product suitability. There are principally three kinds of indicators that were formulated: *quantitative*, *qualitative* and *attestations*. The first line lists an indicator in which is assessed features, benefits and price (second column). It is based on customer insights and needs in varied segments (third column). It incorporates customer analysis and market research to determine whether the products are being accurately segmented (that is to say, marketed

18 The oldest of which is the law clinic at the University of the Witwatersrand. That clinic has gained a substantial profile in representing the poor and indigent, but mainly in respect of human rights abuses and Tortious claims (what in South Africa are termed 'Delicts'). Claims successfully litigated for vulnerable consumers in respect of financial well-being are vanishingly small, but one notable exception is that of the law clinic attached to the University of Stellenbosch, which has litigated on behalf of vulnerable consumers on matters including so-called *garnishee* orders (more correctly called emolument orders), and the statutory *in duplum* rule. See further: Angelique Ardé, "Collection costs judgment brings relief for millions of debtors", 'Money', *Business Day*, 13 December, 2019.

19 National Credit Regulator, "Home", in *NCR National Credit Regulator*, 2016, accessed: 2 August, 2016.

20 The FSCA has partnered with the firm *BrandsEye*, which uses a highly innovative, crowd-sourced (as opposed to AI) approach to analysis of social media sentiment (see for eg https://www.brandseye.com/research/south-african-banking-sentiment-index/). This approach, while more labour-intensive, is more reliable than AI, because *BrandsEye's* approach is able to discern negative sentiment that is expressed - facetiously - as positive. For example comments such as 'thank you [bank name] for making me stand in a queue today for an hour'.

21 https://www.hellopeter.com. See for example sentiments expressed regarding banks (eg https://www.hellopeter.com/absa; https://www.hellopeter.com/capitec-bank; https://www.hellopeter.com/first-national-bank; https://www.hellopeter.com/nedbank; https://www.hellopeter.com/standard-bank) and insurers, both short-term (eg https://www.hellopeter.com/momentum-short-term-insurance; https://www.hellopeter.com/santam), and life (eg https://www.hellopeter.com/old-mutual; https://www.hellopeter.com/momentum; https://www.hellopeter.com/sanlam).

22 Such as The Banking Association, South Africa (BASA).

23 See: Financial Sector Conduct Authority, "Notice Regarding the Publication of Draft Conduct Standard 1 of 2019 (Banks). Financial Sector Regulation Act, 2017", 30 April 2019, read with: Financial Sector Conduct Authority, "Statement Supporting the Draft Conduct Standard - Conduct Standard for Banks", 29 April 2019.

24 *Financial Sector Regulation Act*, No 9 of 2017, (Republic of South Africa), (enacted: GG 41060 of 22 August 2017), s 106(1)(a).

25 See for example: ibid, s 120(1)(c)(ii); 127(1); 144(1)(c); 158; 159; 164; 174; 291.

26 Staff Writer, "Battle of the banks: South Africa's big 5 banks compared", *BusinessTech*, (8 September, 2019), published electronically.

27 Using Tier 1 Capital as a measure, South African banks rank on a global scale in terms of their size as follows: Standard Bank: 152; FirstRand Bank: 169; ABSA Bank: 190; Nedbank: 232; Investec: 463; Capitec: 571. Source: Financial Times Ltd., "50th Anniversary Top 1000 World Banks 2020", *The Banker*, (10 July, 2020), published electronically.

Table 2. A Small Snapshot of Eight of the Indicators

Outcome	Element	Business area	Indicator	Rationale	Variable
Suitability	Features, benefits, price based on customer insights & needs in varied segments	Segmentation; customer analysis & market research	*We segment our customer base into clearly defined target markets with useful insights and reporting that provide a shared understanding of the customers we serve.*	Reporting, measurement & tracking at a customer segment level entrenches customer-centric activity throughout an organization while also providing an entity-wide definition & description of customer profiles	
Suitability	Features, benefits, price based on customer insights & needs in varied segments	Segmentation; customer analysis & market research	Number of segments & segment rules	Evidence to support Attestation 1. *We segment our customer base into clearly defined target markets with useful insights and reporting that provide a shared understanding of the customers we serve*	List of grouping with the rules / thresholds / brackets that defined them
Suitability	Features, benefits, price based on customer insights & needs in varied segments	Segmentation; customer analysis & market research	*We use customer insights into needs, preferences, life-styles & behaviours to ensure that the design & positioning of product / propositions are suited to specific segments & target markets*	The insights gathered from research and analysis are applied to the design phase. Conversely, all assumptions made about design are supported by verifiable evidence	
Suitability	Features, benefits, price based on customer insights & needs in varied segments	Segmentation; customer analysis & market research	Number and annual average balances / values of products at a high-level product class, mapped to corresponding customer needs		

and sold appropriately, taking account of demographics, income and asset levels, levels of sophistication, education, financial literacy and the like). In the fourth column is an indication of an attestation (an attestation is a question to the FSP, like for example: “do you segment your customer base into clearly defined target markets with useful insights and reporting that provides a shared understanding of the customers you serve? Yes or No?”). While it might be tempting for an FSP to respond to that attestation by declaring “yes, we do that,” when in fact they do not, such erroneous responses will be picked-up by cross-reference to the suite of other indicators. Put differently, while there will be a place for an FSP to make an attestation: “yes, we do do these things,” there are a range of other indicators designed to check whether the respondent FSP really does do the things that they have claimed they do. For example, the second row indicates in column five an opportunity to collect evidence to support the attestation contained in row one, column four. In row two, column six, information to support that same attestation is called for, at a more granular level: provide a list of groupings (customer segment groupings and market segment groupings), with the parameters that define those groupings.

In the third row, fourth column is an opportunity to provide an attestation: “do you use customer insights into needs, preferences, lifestyles and behaviours to ensure that products are designed and positioned appropriately for their intended target markets and market segments?” Below that (row four, column four) is an opportunity to collect evidence to support that attestation.

Not every one of the 157 indicators developed will be applicable to every kind of FSP: some will be applicable to all FSPs, some only to insurers, some only to banks, and so forth. After the indicator framework is finalised, the indicators will then be compiled into a questionnaire, or a request for information, in the form of what is called a *Conduct of Business Review.* Those will then be sent to all FSPs in South Africa, with an obligation to complete the review and return to the FSCA for analysis.

No doubt the framework will be refined over time, especially prior to, and immediately after, its debut. But, representing as it does the first of its kind anywhere in the world, the potential benefits are substantial, and the potential importance of this development internationally, even if only somewhat successful, cannot be over-stated. Evaluating the success of the framework will now become the next juncture for scholars in this important field.

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Policy framework for Financial Consumer Protection: What we know vs. what we do not know - The Indian Experience

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A B S T R A C T

This article provides economic rationales for the importance of financial consumer protections in a competitive marketplace for financial products, and considers financial consumer protection in India in the context of the various different protection mechanisms that have evolved across the globe. The article identifies initial developments toward greater protections for India's financial consumers and provides recommendations for how these protections should evolve given the specific needs of India.

Keywords: Financial consumer protection, policy framework, the Indian case

Ⅰ. Introduction

Why do we need a Consumer Protection Framework in a competitive marketplace for financial services? After all, for those who believe in the success of the market and more so about the levelling power of the market, the need for any kind of protection is unclear and mistakenly assumed to be unnecessary. Yet, as is seen, markets are far from being perfect and can be controlled by individuals with vested interests. Therefore, the need to protect the "weak" is of paramount importance. This is all the more true in the financial marketplace as the protection seeker is typically much smaller and significantly less endowed with the resources needed to stand up to the behemoths in the industry. In particular, the need for consumer protection in the highly competitive marketplace for financial services stems from the following:

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- Informational Asymmetry: Expertise is required for the development of most financial products and strategies; thus, the seller of a financial product is always at an informational advantage over the buyer. Information asymmetry incentivizes the seller to mis-sell the product by deliberately concealing the not so savoury yet possible outcomes, leading to poor financial outcomes for the buyer. This has been best described by Akerlof (1970).
- Externalities: Failure of one financial institution can be the cause for investors in financial institutions to withdraw their investments prematurely. This can lead to losses for the investors but also potentially cause a solvent institution to become insolvent. Such outcomes have been seen many times in the banking industry, where due to the breakdown of confidence in one institution the depositors have also, as a panic reaction, withdrawn their deposits from other banks causing an otherwise solvent bank to default and become insolvent and causing much larger damage to the system and the investors. This was evident in the financial crisis in Greece a few years back.

In India we saw the same when there was a murmur of a problem in ICICI Bank or even very recently (March 2020) in Yes Bank. And it has not just been the banking industry that has been exposed to this - this has also been seen in the cases of other financial institutions like the drop in investor interest when institutions like ILFS defaulted in 2018. For details, one can refer to Baltensperger and Dermine (1987); Chari and Jagannathan (1988); Diamond and Dybvig (1983); Jacklin and Bhattacharya (1988); and Postlewaite and Vives (1987).

- High Search Costs and Price Dispersion: There often exists no repository of reliable information to enable comparison of the financial products, and different players market their near identical products as seemingly different. This leads to confusion amongst the investors who can be swayed by the marketing gimmicks and make potentially suboptimal decisions.
- Behavioral Characteristics of Consumers: Consumer decisions can be influenced by the way service providers frame the choices, and consumers may mimic behavioral patterns of peer leaders or peer groups, leading them to ignore signs and indicators that would lead a rational consumer to take different decisions. This becomes particularly relevant in the financial market space as the propensity to mimic the perceived successful person is extremely high, often at a huge adverse cost to an individual investor.

Given this background, an obvious question is why consumer protection in finance is different from consumer protection for other retail goods and services. After all, like other products, financial products are offered in a retail marketplace and other markets may also face the problems outlined above. There are some very clear and compelling reasons to differentiate the concept and need for consumer protection in finance from consumer protection in other retail markets.

One such reason is that decisions and outcomes in the context of financial products are fundamentally different from similar decisions and outcomes in the usual retail product space. It is relevant to note that most important financial decisions are undertaken very infrequently in the course of a lifetime. Yet, the outcome of such financial investments and strategies becomes clear only in the long term, and not immediately upon product purchase, and most importantly at a point in time when the ability to reverse the earlier decision is not possible or feasible. On the other hand, for physical products, the outcome of the purchase becomes obvious upon immediate usage and high-quality producers can distinguish themselves through signalling devices such as warranties on their products as well as the fact that reversal of such decisions is generally far easier; for example an authomobile with a longer and more comprehensive warranty would be viewed differently as compared to one without any such warranty. Moreover, market movements can have a substantial impact on the performance of financial products, confounding the ability to ascertain the reasons behind poor poor performance of a financial product. The poor performance can be due to product mis-sale or to the consequence of random shocks in the market, but diagnosis of the exact cause may not be possible. Further, the different causes may also be intertwined and hence segregation may not be possible. Financial consumer protection regulation therefore requires specialized attention considering both the high degree of information asymmetry and the nature of manifestation of outcomes.

II. The Experience of India

With the above as a broad background, and something that is applicable universally, let us focus on India and the framework that exists there. The ability of the Indian financial system to respond effectively to the challenges in the financial sector will have a significant impact on the future of India.

A. Challenges in the Financial System

The Indian financial system faces a huge number of challenges, but let us take this opportunity to highlight some of the basic facts about financial consumers in India as that also highlights the sources of the challenges that are likely to come up. Of the close to 1.38 billion population only 34.4 percent of the lowest income quartile have access to savings in financial products and about 70 percent of the lowest income quartile borrows from informal sources at interest rates which are upwards of

24 percent per annum. Only 14 percent of the lowest income quartile have life insurance as a part of their financial portfolio; and, only 1 percent of the entire population has medical insurance (one of the most important costs for the aged). In the context of health, it is also important to note that public spending on health is a measly 1.2 percent of the GDP and is expected to grow to around 3 percent over the next 10 years, which will still be very small compared to the need.

In addition, given the improvements in the living conditions in India and the consequent increases in life expectancy, the proportion of those aged 60-and-above is expected to climb from 4.6 percent in 2000 to 9 percent in 2030. This means that in absolute terms the number of people above the age of 60 will increase from 100.8 million in 2010 to 200 million by 2030. By 2050, it is expected to be over 320 million. It also needs to be noted that only about 10 to 15 percent of the population has access to formal programs designed for providing income security during retirement. Finally, it may also be relevant to note that about 33 percent of the population is below 15 years of age, and they will require huge funding for higher education, given the need for education to move out of the low-income bracket. [1]

So, what will be the future of finance and the financial system in India? More directly, what should be some of the strategies to define the future of finance in India? In the opinion of this author, the future of finance in India hinges on the pillars of innovation, customization and competence.

Regarding innovation, considering the range of unsolved problems and the magnitude of financial inclusion required in India, it is clear that the scale of innovation in the financial sector needs to increase in manifold. There needs to be a clear policy space created for actors in the financial sector to attempt new and better ways of delivering financial services, as long as these do not compromise the stability of the system. Increased innovation will necessarily have to be the engine that drives the future of financial services, and we see this as the only way to achieve meaningful financial inclusion in India. The key directions for increased innovation should be in product development, in channels of service delivery, and in technology.

[1] For details, United Nations (2002).

Further, the nature of financial innovation must be socially relevant in the market where it is implemented. Innovations must address the complexity of consumer needs, and solutions must be customized. This is particularly relevant in a country like India where financial literacy is quite low and there are wide disparities amongst the population on all counts - be they economic, social, educational, or cultural.

B. Financial Consumer Protection Framework

Before addressing the possible measures that India could consider, let us look at the current financial consumer protection framework that exists. In this context, it is important to note that there is no specific regulation covering the interests of financial consumers in India. The only legal recourse that the consumers have in India is through the consumer courts set up under the Consumer Protection Act of 1986. These are courts that address all kinds of consumer disputes, including disputes impacting consumers of financial products. However, financial consumers do have some additional cover through the dispute resolution mechanisms set up by the service-specific regulators: the Reserve Bank of India (RBI) for banking related disputes; the Securities Exchange Board of India (SEBI) for disputes arising out of exchange based trades (primarily equity trades); the Insurance Regulatory Development Authority (IRDA) for insurance related disputes; and the Pension Fund Regulatory Development Authority (PFRDA) for disputes arising out of the new pension scheme[2].

Just as the Consumer Protection Act and the service-specific regulatory dispute resolution mechanisms form the basic tenets of India's current financial consumer

[2] All government employees in India, since independence, were eligible for pension upon superannuation. The pension plan in India was the Defined Benefit scheme. However, by around the end of 1990's the government realised that given the increasing life expectancy of the population and therefore an increased pension bill for the government was becoming unsustainable and some estimates showed that if the Defined Benefit scheme for the government employees continued, by 2035 the pension bill of the Government fo India would be more than the total revenue collections of the government. In the backdrop of this, the government decided to move to a Defined Contribution scheme for pension for all employees joining the service on or after January 1, 2004. This Defined Benefit pension scheme is what is known as the New Pension Scheme. For details see CRIISP (2011).

protection landscape today, they also highlight a number of fundamental gaps. First, there is a lack of mechanisms to deal with the conflicts of interest inherent in regulators responsible for the dual functions of prudential regulation and consumer protection. There are also an increasing number of inter-regulatory conflicts arising out of a rapidly evolving financial sector. Finally, consumer protection regulations have failed to respond to a growing body of evidence on consumer behaviors and preferences.

Ⅲ. The Way Forward for Financial Consumer Protection in India

The future of financial consumer protection in India must be built to not just take care of the India specific-market conditions, but to also ensure that the current gaps are addressed. In this context, the author's idea is that the new framework should be based on the "philosophy of suitability". In particular, the financial consumer protection framework should ensure that the consumer protection equilibrium should shift from being disclosure-driven (in which consumers need to make the right choices), to suitability-driven (in which financial service providers need to provide appropriate advice or products to consumers). Further, in order to prevent malpractice in the financial market, the consumer protection framework could be based on either information disclosure mechanisms (buyers decide based on information provided by the service provider) or suitability requirements (seller assesses the suitability of a product for the consumer and is held legally liable for it).

Increasing complexity of financial products will also lead to a greater asymmetry of information between the buyer and the seller. Not only will the asymmetry be adverse to the buyer as compared to the seller, the gap will continue to widen over time. Given this, it makes sense to suggest that the most appropriate approach in protecting the welfare of the financial consumer would be to put the onus of consumer protection on the financial services provider. This shift in equilibrium, from caveat-emptor to provider-liability, will drive financial service providers to compete on the provision of solutions that are appropriate and not just revenue-maximizing for the provider, thus aligning the incentives of the provider with the consumer.

Taking as given that the protection framework for financial consumers needs to be based on the philosophy of suitability, let us briefly discuss suitability as a process. In that sense, what needs to be recognized is that suitability should be seen as a process with every financial services provider having an approved "Suitability Policy" for the company to follow in all interactions with consumers. The policy should include the process of consumer data collection, the methodology used for the analysis of the data collected, the communication channels used for informing customers of the recommendations of the firm, and the follow-up mechanism used by the service provider. And, the real success of this idea will be when the degree of implementation of the suitability process becomes the basis of evaluating a financial service provider; and, when in the event of a violation, the provider should be subject to legal penalties. This will ensure that the financial services provider is incentivized to follow the suitability philosophy and act in the best interests of the consumer.

Another important aspect of consumer protection is the issue of legal liability. Legal liability ensures that it is in the firms' self-interest to provide suitable recommendations and products to consumers. The combination of ex-ante legal liability and a strong threat of ex-post enforcement provide credible disincentives for financial service providers to act in ways that promote their own self-interest at the cost of consumers. The interpretation of suitable behavior would be best determined by the buildup of case laws over time, thus ensuring that our understanding of suitability comes from the realities of the financial marketplace and its evolution over time. A suitability framework underpinned by legal liability is the most effective way of ensuring that the design and sale of financial services is suitable for the consumer.

The idea of suitability also has to be intertwined with the right of choice for the consumers. The objective of suitability is to ensure that the financial services provider is always incentivized to act in the best interests of the consumer, and not to ensure that the consumer abides by the advice of the provider. The right of choice ensures that the principle of suitability does not in any way impede the right of the consumer to choose. In this context, it is important to note that while it is imperative for the financial service provider to present a clear set of recommendations for the consumer, it is for the consumer to make the final decision on whether to accept or reject the recommendations given. The process of suitability stops at the point where the financial services provider gives a recommendation based on his/her understanding of the consumer's situation and needs. The liability for the provider only exists when the consumer consents and follows the recommendations made under the suitability framework.

To be able to achieve this environment, appropriate regulations need to be enacted. The regulations should be such that an environment is created where suitability is at the heart of consumer protection. This will require a fundamental change in the current regulatory approaches and instruments. However, it is only through the creation of an enabling legal and regulatory framework that the power of suitability to drive improved consumer protection can be realized.

It is heartening to note that some developments have been happening in this area. In particular, India is undertaking a fundamental review of its financial sector legislation, through the creation of the Financial Sector Legislative Reforms Commission (FSLRC), whose mandate is to rewrite and harmonize all financial sector regulations. In this context, the idea is also to learn from international experiences, in particular the Consumer Financial Protection Bureau (CFPB) in the US and the Twin Peak models of financial regulation as evolving in Australia and South Africa (for more details, one can refer to Schmulow (2020)).

Ⅳ. Conclusions

To conclude, as stated earlier, the future of the financial sector in India will have be based on the development of a system that supports innovation in design of products, in channels of service delivery, and in technology that will enable the provision of customized financial solutions that match the needs of households, enterprises and governments. Also, the equilibrium of consumer protection in finance should shift from buyer-beware (caveat emptor) to a regime where the onus is on the financial services provider to ensure the provision of suitable financial services to consumers. Suitability needs to be made the cornerstone of the legal right of all financial consumers thus ensuring consumer protection is also core to a financial service provider's business. Including a right to choose along with the philosophy of suitability ensures that the service provider acts in the consumer's best interests but does not impinge on the fundamental rights of consumers to choose the products and services they want.

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Financial Education in the United States*

Brenda J. Cude†

A B S T R A C T

Financial education in the United States in 2020 can be described as both organized and disjointed. State and local education governing bodies, non-profit organizations, and entrepreneurs all contribute to financial education, but often with little coordination. This article briefly describes financial education in the formal U.S. educational system as well as in the public and private sectors. It also highlights the primary challenges to effective delivery of financial education in the U.S.

Keywords: Financial education programs, effectiveness of financial education, the public and private sector governances and delivery mechanisms

Ⅰ. Financial Education in U.S. Educational Settings

In the United States, local school boards and state government departments of education largely determine what is required to be taught and to whom in kindergarten through 12th grade (K-12) public schools. Federal funding supports local schools as they work toward nationwide educational goals. In most states, state government has a role in setting broad curriculum goals, but local boards of education and school district administrators often have the most significant role. Teachers have the most autonomy in deciding *how* to teach content, rather than deciding what content to cover.

The Council for Economic Education (CEE) conducts a biennial survey that is considered an authoritative source about both economic and financial education in U.S. public schools (CEE 2020). The organization collects data from all 50 states and the District of Columbia. In 2020, they reported that 21 states now require that high school students take a personal finance course; the state education standards in five states plus the District of Columbia do not include standards for teaching personal finance.

However, state education standards apply only to students in K-12 public schools. Georgia is one state often praised for its work to require personal finance education. The Georgia state standards for social studies education from kindergarten through the 12th grade include personal finance. The state requires high school seniors to take a semester of economics. State standards require that personal finance be one-fifth of the content of the economics course, and include an end-of-the-course test that factors into the overall course grade (Cude 2016). Yet, by one estimate, as many as one-third of students in Georgia public schools are exempt from this requirement as they are home-schooled or enrolled in a private school, or take more advanced versions of economics such as Advanced Placement coursework or economics as a college course (Cude 2016). Moreover, up to 7.3 percent

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of Georgia public school students leave high school without completing their education (National Center for Education Statistics n.d.). Thus, many children and young adults never experience school-based financial education, even in a state with both standards and structures designed to provide this education.

Few statistics about financial education in U.S. colleges and universities are available, although the U.S. Financial Literacy and Education Commission (2019) has recommended that such instruction be mandatory. Cude and Kabaci (2012) and Danns (2014) report that many colleges and universities provide financial education for at least some of their students, but use a variety of delivery models. Unlike public school K-12 education, there are no mandatory or voluntary standards for financial education for U.S. college students. Kabaci (2012) highlights the lack of consensus among personal finance experts about the content of financial education for college students. Short (2020) calls attention to the importance of approaching financial education for graduate students differently than for undergraduate college students.

Ⅱ. Financial Education in U.S. Private and Public Sectors

To supplement the financial education delivered in U.S. public schools, a wide variety of organizations in the public and private sectors design, deliver, and/or provide financial support for financial education. The rationales for teaching financial education outside the formal school system include:

1) Not all states require that personal finance be taught in public schools and, even when it is a requirement, not all students attend public schools.
2) Financial education in the K-12 grades often does not address many of the financial decisions made in adulthood. For example, while financial investing is likely a topic included in most financial education curricula, the information likely is not sufficiently detailed to prepare one to make the choices required to enroll in and manage an employer-based retirement plan. And, due to the dynamic nature of the market, an employee's real-world choices even a few years after leaving school may significantly differ from those described in a school-based financial education course.
3) The amount of financial education one receives matters (Lynch et al. 2013), and more is better. Semester-long high school financial education courses are the exception; school-based financial education often consists of a few class sessions or at most a few weeks, and is typically offered in a course about another topic such as economics or math.
4) The timing of financial education matters (Lynch et al. 2013). "Just-in-time" financial education is useful because learners receive the education in the context of making an important financial decision (Mandell 2006). That principle rarely applies to school-age children, who may not make any financial decisions about using their own money, much less "important" ones. Research has demonstrated that financial education is like a muscle - if you don't use it, you lose it (Lynch et al. 2013). Thus, knowledge gained but not applied for months or years likely is not retained; suggesting financial education is lifelong learning.

Examples of financial education efforts led by non-profit organizations and financial services firms are plentiful, and include programming aimed at children, programs or seminars offered in the workplace, programs targeting at-risk populations, and more. A sampling of the variety of offerings is included below.[1]

A. Private Sector Financial Education

Some long-standing organizations focused on youth development have incorporated financial education into their mission. An example is Junior Achievement (JA), an organization that "inspires and prepares young people to succeed in a global economy" (www.georgia.ja.org). Junior Achievement of Georgia has collaborated with the Chick-fil-A Foundation to create Discovery Centers that include JA BizTown and JA FinancePark, where students learn financial education in a "360-degree authentic and immersive experience" as they become part

[1] The examples discussed in this paper are not intended to be exemplars.

of a simulated version of their hometown. The Discovery Centers are physical locations but JA Finance Park Virtual provides a parallel online learning opportunity.[2]

Invest in Girls, affiliated with the Council for Economic Education, espouses the mission is to “usher in the first generation of financially literate girls and change the way girls interact with money”. The program uses a three-part approach that includes an educational curriculum, time with role models who work in financial services, and visits to financial services firms.[3]

Many non-profit organizations provide resources to classroom teachers. One such program is My Classroom Economy, which offers “fun,” experiential learning activities to teachers and their students.[4] This program is unique in that researchers have evaluated its outcomes. Batty et al. (2016) reported that the program improved both financial knowledge and academic achievement and influenced student self-reports of selected financial behaviors, such as budgeting.

Other organizations focus on financial education for adults. America Saves, from the Consumer Federation of America (CFA), is unique in that its goal is changing attitudes, not knowledge.[5] CFA incorporated evaluation of the program’s outcomes from the outset. This social marketing campaign’s goal is to motivate, encourage, and support low-to-moderate-income households to save money, reduce debt, and build wealth.

Several programs target specific at-risk populations. The National Foundation for Financial Education’s CashCourse[6] provides financial education materials for college students. Retire Friday[7] is a financial education initiative designed to improve opportunities for Hispanics to build wealth in retirement programs. In another example, the at-risk population is prisoners. The North Dakota Department of Corrections and Rehabilitation offers financial literacy courses in all five state prisons (North Dakota Department of Corrections and Rehabilitation n.d.).

Postmus et al. (2015) describe a financial education curriculum designed for domestic violence survivors. The researchers evaluate the impact of the curriculum using an experimental design with participants randomly assigned to the treatment or the control groups. The researchers reported improvements in self-reported financial knowledge, financial intentions, and financial behaviors.

McGarity et al. (2019), Okech et al. (2018), and Price et al. (2019) have described the importance of financial literacy for disabled populations, survivors of human trafficking, and homeless populations, respectively. The Florida Department of Financial Services has developed a comprehensive financial education curriculum for individuals with developmental disabilities (Financial literacy for everyone 2017). The National Alliance to End Homelessness has advocated for time banks, which are collectives of people who barter their services, as a way to teach basic money management, even to individuals who have little or no money ((Fostering financial literacy and security 2013).

For decades, researchers such as E. Thomas Garman (Kratzer et al. 1998) have advocated for workplace financial education. Trade associations for human resources professionals emphasize financial education, especially about employee benefits and retirement planning. For example, the International Foundation of Employee Benefit Plans offers several financial education resources on its website[8] and has published a report on strategies and best practices for financial education in the workplace (Bonner 2016). In a 2014 report, the Society for Human Resource Management indicated that 57 percent of U.S. organizations provide some type of financial education to their employees, most often retirement planning, financial counseling/resources through an employee assistance program, and financial investment planning (Society for Human Resource Management 2014).

Several large financial services companies have created financial education programs for different market segments. Examples include programs designed by banks, such as Wells Fargo’s *Hands On Banking*[9] tool, which includes different versions of its content for different audiences, including young adults. The credit card company Visa has created a popular financial education program, *Practical Money Skills for Life*[10]. EverFi[11] markets finan-

[2] See http://www.georgia.ja.org/jadiscoverycenters and (http://www.georgia.ja.org/jafinanceparkvirtual

[3] https://www.councilforeconed.org/programs-2/invest-in-girls/

[4] https://www.myclassroomeconomy.org/

[5] See https://americasaves.org. Information about evaluation can be found at https://americasaves.org/in-the-newsroom/research.

[6] https://www.cashcourse.org/

[7] https://retirefriday.com

[8] (https://www.ifebp.org/news/featuredtopics/RetirementSecurity/Pages/default.aspx)

[9] https://handsonbanking.org/

[10] http://www.practicalmoneyskills.com/

cial education materials to businesses and non-profit organizations. The American Institute of Certified Public Accountants' comprehensive money management tool *360 Degrees of Financial Literacy* features different sections for "everyone from tweens to retirees".[12]

Entrepreneurs have entered the financial education arena as well. The Khan Academy uses video instruction that incorporates a digital white board to teach financial education at no cost.[13] Khan Academy lessons frequently appear on lists of best financial education websites.[14] Gamification is a focus of some financial education originating in the private sector. Examples include *Farm Blitz*, which targets debt management, *Bite Club*, designed to teach retirement planning, and *Savings Quest*, which encourages saving (Maynard & McGlazer 2017).

B. Public Sector Financial Education

Many state and federal agencies are engaged in financial education in the United States. At the federal level, 20 federal agencies participate in the U.S. Financial Literacy and Education Commission, created in 2003.[15] In addition to coordinating financial education efforts across the different agencies, the Commission is responsible for developing a national financial education website and a national strategy on financial education. The U.S. Consumer Financial Protection Bureau also has a financial education mission - "to arm people with the information, steps, and tools that they need to make smart financial decisions".[16]

There is little published information about the engagement of state agencies in financial education. However, a Google search indicates that state treasurers in many states are engaged in various ways in financial education. Wisconsin is one state that has a Governor's Council on Financial Literacy, which includes representatives from many state agencies as well as from the private sector.[17] U.S. public libraries also are engaged in financial education (American Library Association 2020).

Ⅲ. Challenges in U.S. Financial Education

Despite the significant activity underway in the U.S. to deliver financial education to multiple different audiences in a variety of ways, significant challenges remain. Four are described briefly below.

Lack of consensus about the objectives of financial education. Because there is little agreement about what a financially literate individual should know or be able to do, there are different opinions what the objectives of financial education are or should be. At least two authors (Huston 2010; Remund 2010) have presented relatively consistent thoughts about the knowledge focus of financial education, suggesting they should be budgeting, saving, borrowing, investing, and/or protecting resources. However, both also recognized that financial literacy is more than just knowledge; Huston suggested the concept of financial literacy must also include "ability and confidence to effectively apply or use knowledge" (p. 307). Remund (2010) suggested that financial literacy must include the ability to communicate about financial concepts, aptitude to manage personal finances, and skill to make appropriate financial decisions. Other researchers, for example, Almenberg and Widmark (2011), have indicated that numeracy, the ability to make basic calculations, is essential to financial literacy. While different aspects of financial education may be relevant to different audiences at different times, the lack of consensus about the essential components and outcomes of financial education is problematic.

Limited assessment of the outcomes of financial education. Without agreement about what the objectives of financial education "should" be, it is challenging to assess its outcomes. Furthermore, a lack of convincing evidence that financial education "works" leaves it open to others to challenge its value and to argue instead for better enforcement of consumer protection laws, automation of more financial management practices, and greater use of financial intermediaries (Willis 2008).

A critical barrier to evaluating financial education programs is limited resources - not only money but also

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11 (https://everfi.com/financial-education/
12 https://www.360financialliteracy.org/
13 https://www.khanacademy.org/
14 For example, https://www.moneycrashers.com/best-financial-education-websites/.
15 https://home.treasury.gov/policy-issues/consumer-policy/financial-literacy-and-education-commission
16 https://www.consumerfinance.gov/about-us/the-bureau/
17 https://www.wdfi.org/OFL/govcouncilfinlit/members/GCFLDirectory.pdf

expertise. Resources now are available to guide evaluation efforts (see, for example, the OECD's (2010) *Detailed Guide to Evaluating Financial Education Programmes*). However, the skill sets required to develop effective and creative educational programs and to evaluate educational programs are not necessarily the same. In addition, we lack consensus about how to measure outcomes as well as outcome measures developed using psychometric analysis techniques to ensure validity (Knoll & Houts 2012).

Limited coordination among and across sectors. Lack of coordination and, in some cases, competition to create financial education programs is inefficient. Individuals and organizations who are new entrants into financial education often create new curriculum and approaches, either because they are unaware of existing resources or think they have a new and "different" approach. This too is inefficient.

Production of financial education materials by financial services firms, which have both the funding and incentives to create financial education to broaden their customer base, has led to a proliferation of financial education resources related to credit and investing. At the same time, other equally essential financial education topics, such as insurance, are under-represented.

Keeping up with changing marketplace practices. U.S. financial education is not keeping pace with changes in the marketplace. For example, it is easy to find references to writing checks and managing checkbooks in financial education. However, it is less common to find parallel information about debit cards and mobile payment services such as Venmo, even though young adults are more likely to use either of these than checks (Mercator Research 2019). In another example, newer models of insurance, such as Lemonade.com, may be the future. As U.S. financial marketplaces evolve, financial educators will be challenged to keep pace.

Ⅳ. Conclusions

A brilliant article would end with a clear plan to tackle these challenges. Unfortunately, the author does not have such a plan. However, she suggests that solutions must come from coalitions from each of the sectors engaged in financial education, not from one individual. In the author's opinion, the solutions would be characterized by coordination, not competition; and by specialization (in, for example, funding, and curriculum development, expertise in current market trends, evaluation, and research).

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Why Would Overconfidence Generate Lower Performance? Insights from an Experimental Study*

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A B S T R A C T

Overconfidence is recognized as one of the most important behavioral biases in decision-making. Using results from a controlled lab experiment we find that participants who *display* more confidence perform worse than other participants, whereas participants who *say* they are confident do not perform worse. We also find evidence that more confident traders also have lower visual attention levels (using an eye-tracking software), lower visual working memory (measured using an "n-back 1" test), and higher physiological arousal (using electro-dermal activity). Although conducted using a small sample of novice traders, our findings represent a first step in explaining how overconfidence and performance are related in financial markets.

Keywords: Overconfidence; Implicit risk tolerance; Visual attention and working memory; Electro dermal activity
JEL Classification: G16

Ⅰ. Introduction

Overconfidence can be defined as the overestimation of one's intuitive ability, which results in a confidence level in one's judgement that is much greater than the objective accuracy of one's judgment (Pallier *et al.* 2002). In financial markets, overconfidence increases risk taking and trading volume, which result in lower returns net of trading fees (Odean 1999; Barber and Odean 2000; Kumar and Goyal 2015). Theoretical advances have incorporated traders' overconfidence to account for these behavioral deviations from rationality (see Daniel *et al.* 1998; Benos 1998; Gervais and Odean 2001, Ouzan and Boyer 2018). Further studies have found evidence of overconfidence amongst mutual fund managers (Puetz and Ruenzi 2011), venture capitalists (Zacharakis and Shepherd 2001), financial analysts (Hilary and Menzly 2006), and retail investors (Barber and Odean 2001; Chuand and Lee 2006; Grinblatt and Keloharju 2009).

Behavioral biases can also explain irrational phenomena such as the difference between investors' portfolio risk and their self-reported risk appetite (Morse 1998). As risk preferences appear to be more accurately measured using an economic task instead of a questionnaire (Harrison and Rutström 2008; Anderson and Mellor 2009), an individual's risk tolerance must be measured using approaches that capture the effect of behavioral biases for both explicit and implicit processes. D'Acunto (2015) and Pikulina *et al.* (2017) propose the use of experimental approaches that seek to study such behavioral biases.

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** This research was initially conducted when all authors were affiliated with HEC Montréal (Université de Montréal): Boyer holds the Power Corporation of Canada Research Chair and is a CIRANO fellow, Martin and Dumont were research professional with the Tech3Lab, and Léger holds the NSERC-Prompt Industrial Research Chair in User Experience. Any Correspondence should be sent to the first author at martin.boyer@hec.ca.

Different lower-level cognitive processes, such as visual attention and working memory, enter one's decision-making process (Orquin and Loose 2013; Hinson *et al.* 2003). Although the impact of overconfidence on the performance of decision-makers has been thoroughly researched (see the aforementioned related literature, *inter alia*), no study, to our knowledge, has examined the relationship between visual attention, working memory and overconfidence in a financial market setting. Moreover, the interaction between overconfidence and these cognitive processes and traits remains unclear. Since emotions affect the individuals' decisions (Grossberg and Gutowski 1987; Elster 1998; Loewenstein 2000), we also look at the role of physiological arousal on overconfidence to assess the channel through which overconfidence affects a financial market traders' performance.

This paper seeks to increase our understanding of how cognitive functions, and a financial market trader's emotional states, are articulated in the context of overconfidence. We will examine two aspects of individual confidence. The first aspect is that overconfidence determines a trader's ability to perform in a financial trading context. The second aspect will be to examine what individual characteristics, if any, determine an individual's level of overconfidence. The goal is therefore to come up with indicators that would identify the situations during which a market trader is at risk of displaying overconfidence in his own ability to the detriment of his ability to generate positive returns in capital markets. Our research therefore provides some insights for those who seek to combat overconfidence in retail investors.

To achieve our goal, we conduct a small-sample experiment to evaluate the impact of the participants' confidence level on their ability to perform in financial market trading simulations. The tools we shall use to determine how confidence (and over-confidence) affects a participant's trading behavior include an eye-tracking monitor to visual attention and assess visual working memory performance, a risk tolerance psychometric test, and an electrodermal activity (EDA) sensor to measure the participants' physiological arousal during the trading exercise.

The results of our study are the following. First, we find that over-confidence - a measure that we shall define later - leads to under-performance in financial markets. Second, we find that individuals who display more overconfidence tend to be individuals who have worse working memory and are more easily excited or aroused when performing their tasks. Lastly, we find no correlation between risk tolerance and our measure of overconfidence.

Our results suggest that approaches that seek to determine a capital market trader's type based on his/her measure of risk aversion are missing the mark since visual memory and arousal appear to be more important factor determining an individual's ability to generate positive results in trading financial contracts. The remainder of the paper is organized as follows. In the next section we review a (very small) part of the massive literature related to individuals' cognitive processes, their risk attitudes, and to their apparent physiological arousal when performing tasks. Section 3 presents the five hypotheses we shall test; two hypotheses are related to the impact of over-confidence, whereas the three others are related to the determinants of over-confidence. The methodology and the relatively simple experimental design are presented in Section 4. We present the results of our experiment in Section 5. We discuss our results in Section 6 and conclude with Section 7.

II. Literature Review: Automatic and Controlled Cognitive Processes

The cognitive processes, which are involved in social judgment and behavior, are defined by the dual-process theories that separate cognitive processes into two categories: automatic and controlled processes (Gawronski and Creighton 2013; Kahneman and Frederick 2002). Automatic processes include processes that are effortless, implicit, and associative, while controlled processes include the ones that are controlled and deductive. Dual-process theories also indicate that automatic processes are mainly driven by emotions and past experience, whereas controlled processes touch on conscious and more rational mechanisms. Thus, risk behavior is not only affected by rational processes but also by implicit processes governed by emotions and experience.

A. Cognitive Processes: Visual Attention and Working Memory

Cognitive processes are mechanisms in the brain that allow individuals to learn from, remember, and process the information they receive from the environment in which they live and operate, and (Sternberg and Sternberg 2016) and with which they interact. For instance, memory, attention, perception, and problem-solving abilities are all cognitive processes. The two cognitive processes on which we will focus specifically this study are known as *visual attention* and *visual working memory*.

Visual attention refers to the mechanism that allows individuals to selectively process large amounts of visual information (Carrasco 2011). As argued by Lennie (2003), the large quantity of information captured by the eyes, together with the limited processing capacity of the brain caused by the limited amount of available energy, makes visual attention a selective process. Visual attention can be separated into overt and covert attention (Wright and Ward 2008, Tas *et al.* 2017); overt attention occurs when individuals move their eyes over a specific location, while covert attention occurs when individuals shift their focus to the periphery without moving their eyes. Although mainstream economic models do not include visual attention, evidence suggests that it plays an important role in the decision-making process (Orquin and Loose 2013), especially when decisions need to be made based on information that is collected during intense fixation periods (Krajbich *et al.* 2010).

Visual attention has also been studied in connection with behavioral biases in investments. For instance, Shavit *et al.* (2010) find that investors not only spend more time looking at individual assets rather than their portfolio, they also spend more time looking at assets on which they made gains rather than assets on which they suffered losses. In the same vein, Innocenti *et al.* (2010) observe in an experimental study that overconfident individuals spend less time looking at the stimuli before making trading decisions. They attribute these results to the fact that the time spent examining new visual information is lower for over-confident individuals. In addition, Innocenti *et al.* (2010) note that over-confident individuals have a lower number of fixations when exposed to some visual stimulus. Based on these results, we investigate the participants' visual attention in integrating these cognitive processes in behavioral theories.

In contrast to visual attention, which allows individuals to process information, visual working memory is a cognitive system storing and manipulating temporary information ready to be processed (Miyake and Shah 1999). One's visual working memory is the mechanism by which one retains relevant and discards irrelevant visual information (Olivers et al. 2006). Working visual memory has many components: The visual-spatial sketchpad, memory performance, and memory capacity. All three are essential for reasoning and thus an integral part of the decision-making process (Diamond 2013). The *visuospatial sketchpad* is the component of the working visual memory that is responsible for storing and manipulating visual information (Baddeley 1992). Pattern recognition relies on visual working memory *performance* (Larsen and Bundesen 1978). Working memory *capacity* (see Miller 1956 for an early contribution) is positively correlated with cognitive tasks such as reasoning (Ackerman *et al.* 2005; Kane *et al.* 2005), reading (Daneman and Carpenter 1980; Carretti *et al.* 2009) and decision-making (Hinson *et al.* 2003; Bechara *et al.* 2000). It should therefore be clear that visual working memory in general could be used to predict individuals' performance in cognitive tasks. In particular, Chen and Sun (2003) study working memory capacity as connected to financial decision-making. Juslin *et al.* (2007) attribute the overconfidence to working memory capacity since individuals only use a limited amount of information when performing a task.

B. Risk Behavior and Attitude

With respect to an individual's attitude toward risk, we shall use the notion of risk tolerance, which is defined as the amount of risk an individual can bear. Risk tolerance, which Grable and Joo (2004) describe as a person's willingness to face outcomes that are uncertain and potentially negative (that is, the opposite of risk aversion), is typically measured using self-reported questionnaires.[1] The challenge with self-reported questionnaires that seek to measure risk attitudes is that they involve controlled and planned processes, in a way that the entire exercise is subject to some social desirability bias (Van de Mortel 2008). In particular, Fazio and Olson (2003) feel that ques-

[1] See in particular the Grable and Lytton (1999) questionnaire.

tionnaires fail to capture the contribution of implicit processes in the risk tolerance profile of individuals, which explains why questionnaire-determined risk tolerance measures correlate little with individuals' chosen investment portfolio in simple games (Dow and Werlang, 1992, Morse, 1998, and Gable *et al.* 2018).[2] If we believe that self-assessed risk tolerance questionnaires fail to match the portfolio risk of individuals, then there is a potential important need to develop risk tolerance measures that can identify the importance of implicit processes in risk-taking behavior. Put differently, risk-tolerance profiling needs to consider the implicit component of risk behavior instead of focusing mainly on controlled processes.

Using implicit measures to assess risk tolerance has two advantages compared to explicit measures. The first is that implicit risk tolerance results are difficult to alter or fake because respondents have little time to think before giving answers and, more importantly, respondents have no control over automatically activated evaluations. This is why indirect attitude measures, which Implicit Association Test are but an example, are gaining in importance: They allow assessing implicit cognitions, which are highly relevant in the context of affective decision making.[3] The second is that the purpose of this kind of test is harder to identify, and therefore to manipulate to fit one's intended end result. To assess risk tolerance in such a way, we will make use of implicit association tests (IAT), which have been widely used to measure implicit cognition (Greenwald *et al.* 2009) and to determine individuals' behavior for numerous purposes. IAT has been successfully used to predict anxiety (Egloff and Schmukle 2002), alcohol consumption (Lindgren *et al.* 2013), discriminatory behavior (McConnell and Leibold 2001), and attitudes toward consumer brands (Maison *et al.* 2004). An IAT measuring implicit risk tolerance in a financial context has already been used by Fehr and Hari (2014), who write that it would be "inadvisable to use explicit questionnaires alone to predict investor behavior because they do not cover spontaneous and emotion-driven decision making" (Fehr and Hari, 2014; p60). Although their results show a positive but low correlation between the IAT scores and self-administered questionnaire-determined risk tolerance scores, no attempt has been made, however, to evaluate whether the IAT scores are correlated with the risk of the investor's portfolio. This comes in contrast with the Grable and Lytton (1999) questionnaire, which seems to correlate will with portfolio holdings.

C. Physiological Arousal

Research in the fields of cognitive sciences and behavioral economics indicates that emotions affect rationality in decision-making (Grossberg and Gutowski 1987; Elster 1998; Loewenstein 2000). Schunk and Betsch (2006) find that decision-makers who can be characterized as more rational perform better than those who can be characterized as emotional. Using a lottery-based experiment, they showed that the superior performance of subjects classified as rational is due to a more constant association of the objective value with the subjective one. The relationship between high physiological arousal and lower performance tasks that require cognition and judgment can be explained by higher excitement levels (Lench *et al.* 2011), which limit an individual's ability to concentrate properly on the task itself. Put differently, *enhanced activation* - another name used to refer to higher excitement levels - limits the cognitive processes of individuals. In the same arousal realm, Lo *et al.* (2005) find that traders experiencing more intense emotional reactions were not as effective in financial market trading settings (or simulations or games) as those experiencing less intense emotional reactions.

Ⅲ. Hypothesis Development

A. The Impact of Overconfidence

The main hypothesis we seek to examine in this paper is whether over-confidence leads to lower performance in a financial market context. To test this hypothesis, we build upon the work of Barber and Odean (2000), which shows that the high trading level of overconfident investors leads them to earn significantly lower returns (see also Chuang and Lee, 2006, and Merkle, 2017).

[2] Grable and Joo (2004) contend, however, that risk tolerance measures correlate well with individual choices using a Grable and Lytton (1999) questionnaire.

[3] See in particular Traczyk and Zaleskiewicz (2015) and Metzger and Fehr (2019).

They find that more active investors earn lower expected returns. The under-performance of active investors comes from the trading costs, which include commissions, fees, and the so-called bid-ask spread. Barber and Odean (2000) also report that the 20% most active investors had an average turnover of more than 150% a year; this means that an investor having $100,000 invested in capital markets at the beginning of the year would enter transactions worth $150,000 in the year.[4] Grinblatt and Keloharju (2009), Glaser and Weber (2007) and Statman *et al.* (2006) find similar results.

Before analyzing the relationship between overconfidence and visual attention, visual working memory, implicit risk tolerance, and arousal, we need to verify that overconfidence is indeed linked to inferior performance in our study. This leads us to state our first testable hypothesis:

Hypothesis 1: Overconfident traders perform worse.

The second hypothesis we seek to examine is whether overconfidence affects the participants' ability to concentrate on the task that needs to be accomplished; that is, we are interested in seeing whether overconfidence is related to visual attention. To our knowledge, only Innocenti *et al.* (2010) examine whether visual attention (or gaze) is affected by overconfidence. They find that, with respect to information provided on the screen, overconfident participants have both a lower average duration time of first fixation and a lower number of fixations before making a choice. Thus, if participants in our study are overconfident, they should look less often at the visual stimulus, and for a shorter time. This leads us to state our second hypothesis:

Hypothesis 2: A) Overconfident traders examine information stimuli less often; and B) Overconfident traders examine information for a shorter amount of time.

B. The Determinants of Overconfidence

The second set of hypotheses we examine seeks to determine which individual characteristics, apart from socioeconomic and educational characteristics (if any), are associated with overconfidence in a capital market trading context. We will focus on three such dimensions: Working memory, Risk tolerance, and Arousal. We expect overconfidence to be negatively related to working memory, and positively related to risk tolerance and arousal.

Juslin *et al.* (2007) show that the limited capacity of **working memory** is positively linked to the presence of overconfidence because only limited working memory information can be used. By having less-than-full information at their disposal, individuals must rely on the little information they have. Using an experimental approach, Hansson *et al.* (2008) find that increasing task experience is insufficient to eliminate overconfidence because of working memory limitations. This means that individuals with more limited working memory should also be more overconfident. We state this as our third hypothesis:

Hypothesis 3: Low visual working-memory performance is positively related to overconfidence.

Overconfidence is an emotional bias linked to more risk-taking (Odean 1998; Hirshleifer and Luo 2001; Nosić and Weber 2010). We expect that traders with higher **risk tolerance** should also be more overconfident. Assuming that risk tolerance can be measured using implicit association test (IAT) scores (as in Greenwald *et al.* 2009), we are able to test Hypothesis 4:

Hypothesis 4: Greater risk tolerance (and low IAT scores) is positively related to overconfidence.

According to Schunk and Betsch (2006), rational decision-makers perform better than emotional decision-makers due to a more constant association of the subjective value with the objective one. Additionally, Lo *et al.* (2005) find that traders experiencing more intense emotional reactions while trading performed worse than traders with less intense emotional arousal. As overconfidence is a bias associated to emotions (Chu *et al.* 2012), we expect traders having higher arousal characteristics to also be more overconfident:

Hypothesis 5: Arousal is positively related to overconfidence.

[4] This may be due to rotating half of the assets (or $50,000) in his portfolio three times a year (say in the months of May, September, and December), or entering transactions worth $12,500 each month.

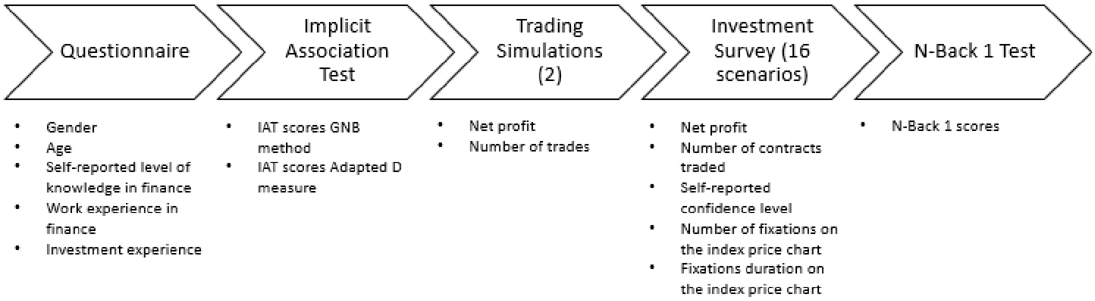

Figure 1. Experiment Flow Chart

Ⅳ. Methodology and Experimental Design

To test our hypotheses, we conducted a within-subjects lab experiment that took 60 minutes to complete on average. Thirty participants took part in the experiment. Each participant received a $20 gift card at the university's bookstore as fixed compensation. An additional $200 gift card was given in the form of a lottery with the incentive that a participant's winning probability was a function of his/her performance and involvement in tasks. The study was reviewed and accepted by our institution's Research Ethics Board.

Participants were recruited from a registered research panel and from our university's student population. Of the 30 participants, 22 were male and 8 were female, and were aged between 18 and 42 years (average age of 24.6 years). No participant had any diagnosed neurological, psychiatric or health problem, and they were all able to work on a computer without the need for corrective lenses or glasses. Moreover, since we study the behavior of novice traders, participants needed to have completed a maximum of three university-level finance courses. Upon their arrival at the lab participants were told that they would take part in an experiment studying decision-making in a trading context. After signing an informed consent form, a research assistant installed and calibrated the apparatus.

A. Experimental Approach

The experiment we conducted has five separate tasks (see Figure 1).

The first two tasks consist in a short questionnaire on the participants' socio-economic background and knowledge[5] about finance, and in his/her participation in an implicit association test (IAT).[6] We replicate the IAT task for the financial domain developed by Fehr and Hari (2014) and simply changed the currency displayed (dollars instead of euros).

The third task consists of two five-minute simulations using the Rotman Interactive Trader (rit.rotman.utoronto.ca) platform. Participants are asked to trade future contracts based on a fictitious market index created for the experiment. The only information provided to participants is the price chart of the index for the duration of the simulation. No historical or fundamental data are provided, and no statistics are displayed, but participants receive information on trading limits, position limits, and transaction costs. The price of the index changes every second.

For the fourth task, participants are asked to answer questions based on price charts related to the same fictitious index as in the trading simulations they had just completed. Half of the charts are directly taken from simulations already seen by each participant. Each scenario seen is created using one-fifth of the price path used for a given trading simulation. The other scenarios have not been seen, but are conceived similarly to the ones taken from the simulations. We include scenarios seen in the investment survey so that participants who remember how the index behaved during the trading simulations can benefit from a more aggressive investment position, similar to so-called technical traders in financial markets (Kirkpatrick and Dahlquist 2010). For each scenario, a chart displays

[5] We measure financial knowledge even though Fernandes et al. (2014) find that such knowledge does not seem to lead to better financial behavior.

[6] See also https://meade.wordpress.ncsu.edu/freeiat-home/.

the price movement of the fictitious index, and participants have to make an investment decision, which consists in choosing the number of contracts they wanted to buy or sell, and their confidence level (on a Likert scale). For simulation-based scenarios, the trader's performance is calculated using the simulation's price 15 seconds after the last price presented in the scenario. For new scenarios, a predetermined end price of the same order of magnitude as the scenarios already seen is set. Participants do not receive any feedback after completing a scenario, and there is no time constraint. Scenarios are presented randomly. As in the trading simulations, participants are given the objective to generate the highest possible profit to increase their probability of winning 200 dollars.

For the last task, participants are presented a "n-back" test to measure their visual working-memory performance. This test shows a series of 30 small white squares appearing in one of the 15 different locations on a screen. Participants must determine if the square shown is in the same place as the previous square. Squares are presented for 1,000 milliseconds. Between each square, a number appears in the center of the screen for 500 milliseconds, which a participant must report to the lab instructor to prevent him/her from fixating on the previous square's location. After being given instructions on how to perform the n-back test participants perform a practice run, followed by the real test.

B. Instruments and Apparatus

A Biopac MP150 amplifier (Biopac Systems Inc, Goleta, United States) with a sampling rate of 500 Hz is used to record participants' electro-dermal activity (EDA). EDA is recorded using two electrodes placed on the palm of the non-dominant hand for the duration of the experiment. An SMI RED250 (SensoMotoric Instruments, Berlin, Germany) infrared pupil reflection system with a sampling rate of 60 Hz is used to record participants' eye movement on the screen.

C. Variable Operationalization

Answers to the sociodemographic questionnaire provide information on the participants' gender, age, self-reported financial knowledge, work experience in finance, and investment experiences. We obtain data on the participants' net profit and the number of trades for each trading simulation. The n-back test provides a measure of the participants' visual working memory capacity (Kramer *et al.* 2014; Kirchner 1958). In summary, the variables we use are defined as:

- **Overconfidence** is measured using 1-the number of trades during the simulations, 2- the number of contracts traded in the chart-recollection exercise, and 3- and a self-reported confidence level regarding their investment decisions during the recollection exercise.
- **Performance** is the net profit the trading simulations and recollection exercise.
- **Visual attention** is measured as the number of fixations and their duration on an area of interest (AOI) during the recollection exercise. Separating the price charts in areas of interest (AOI) allows us to compute eye-fixation data. This exercise yields the number of fixations and their duration for each AOI.
- **Visual working memory** capacity is measured by the n-back score.
- **Arousal** is measured by the participant's EDA amplitude during the recollection exercise. We take the average of each participant's EDA.
- **Risk tolerance** is measured by the two scores generated from the IAT using either the GNB or the adapted-D scores (Greenwald *et al.* 2003; Gattol *et al.* 2011). IAT scores are bounded between -2.00 and +2.00.[7] A negative IAT score indicates high risk tolerance, while a positive IAT score implies low tolerance.

Ⅴ. Results

The results we present are two-fold. First, we present results related to the performance of the participants during the trading simulation (task number 3), then we present

[7] According to the GNB method (resp. adapted-D measure) the participants' risk tolerance ranged from 0.1353 to 1.3426 (resp. -0.0803 to 1.4030), with an average of 0.7798 (resp. 0.8454) and a standard deviation of 0.3154 (resp. 0.3805). The implicit risk tolerance scores for the GNB method are in line with previous research (Fehr and Hari 2014).

Table 1. Estimates of the Independent Variables for the RITC Market Simulation (Task #2, with *n* = *60*)

Panel A: Coefficient estimate of overconfidence for net profit (H1)

Explanatory variable	Net profit	
	Estimate	*p-value*
Number of trades	-17.7900	0.0062***

Panel B: Coefficient estimate of working memory capacity for overconfidence (H3)

Explanatory variable	Number of trades	
	Estimate	*p-value*
NBACK	-10.5664	<.0001***

Panel C: Coefficient estimates of risk tolerance for overconfidence (H4)

Explanatory variable	Number of trades	
	Estimate	*p-value*
IAT(IA) score	-22.7738	0.0322**
IAT(AD) score	-17.0547	0.0538**

Panel D: Coefficient estimate of arousal capacity for overconfidence (H5)

Explanatory variable	Number of trades	
	Estimate	*p-value*
Arousal		

Legend*: Only the estimates of the main independent variables of interest are presented. NBACK = n-back score; IAT(IA) = IAT GNB score using the "improved algorithm"; IAT(AD) = IAT GNB score using the "adapted-d measure". P-values are two-tailed, with * significant at 10% level, ** significant at 5% level, and *** significant at 1% level.*

the results of the chart-recollection exercise (task number 4). By construction, only hypotheses 1, 3, 4, and 5 can be tested using the trading simulation since the participants' self-reported level of confidence was asked only for the recollection exercise. We perform independent linear regressions to test our hypotheses (*n* = *60*). A summary of the results for the trading simulation follows in Table 1.

1- The effect of the number of trades, which we use as the level of confidence as reported by Barber and Odean (2000), on net profit (H1) suggest a significant negative relationship, thus **supporting H1** ($\beta = -17.7900$; $p = 0.0062$; two-tailed).
2- There is a significant negative relationship between confidence, as measured by the number of trades, and visual working memory performance, thus **supporting H3** ($\beta = -10.5664$; $p < 0.0001$; two-tailed), suggesting that participants with higher visual working memory trade less often, which may mean that they are less overconfident.
3- There is a significant negative relationship between confidence, as measured by the number of trades, and a participant' risk tolerance using either the GNB-improved AIT algorithm ($\beta = -22.7738$; $p = 0.0322$; two-tailed) or the adapted-D AIT measure ($\beta = -17.0547$; $p = 0.0538$; two-tailed), thus **supporting H4**. This would indicate that with higher risk tolerance (or lower risk aversion) trade more and are thus more likely to be overconfident.

Table 2, in which we display the coefficients and p-values of the explanatory variable for each regression, shows the results for the recollection exercise. As for the results presented in Table 1, no control variable (gender, age, financial knowledge, experience) is significant in any regression (and not shown).

The results from the independent linear mixed-model regressions tell us that:

1- The effect of confidence on net profit (H1) suggests a significant negative relationship between the number of contracts traded and net profits, thus **supporting H1** ($\beta = -20.5751$; $p = 0.0037$; two-tailed), even though the impact of self-reported confidence on net profits is not significantly different from zero.

Table 2. Estimates of the Independent Variables for the Chart-Recollection Exercise (Task #3, with *n = 480*)

Panel A: Coefficient estimates of overconfidence for net profit (H1)

Explanatory variable	Net profit	
	Estimate	*p-value*
Self-reported confidence	7.1629	0.5056***
Number of contracts	-20.5751	0.0037***

Panel B: Coefficient estimates of overconfidence for visual attention (H2)

Explanatory variable	Number of fixations		Fixation duration	
	Estimate	*p-value*	*Estimate*	*p-value*
Self-reported confidence	-0.1098	<.0001***	-0.1216	<.0001***
Number of contracts	-0.0320	0.0066***	-0.0399	0.0017***

Panel C: Coefficient estimates of working memory capacity for overconfidence (H3)

Explanatory variable	Self-reported confidence		Number of contracts	
	Estimate	*p-value*	*Estimate*	*p-value*
NBACK	-0.1637	0.0846*	-0.1418	0.1787

Panel D: Coefficient estimates of risk tolerance for overconfidence (H4)

Explanatory variable	Self-reported confidence		Number of contracts	
	Estimate	*p-value*	*Estimate*	*p-value*
IAT(IA) score	-0.3899	0.4505	-0.2838	0.6153
IAT(AD) score	-0.2456	0.5678	-0.0872	0.8526

Panel E: Coefficient estimates of arousal for overconfidence (H5)

Explanatory variable	Self-reported confidence		Number of contracts	
	Estimate	*p-value*	*Estimate*	*p-value*
Arousal	0.0747	0.0086***	0.0530	0.0934*

Legend*: Only the estimates of the main independent variables of interest are presented. NBACK = n-back score; IATIA = IAT GNB score using the "improved algorithm"; IATAD = IAT GNB score using the "adapted-d measure". P-values are two-tailed, with * significant at 10% level, ** significant at 5% level, and *** significant at 1% level.*

2- The effect of the two over-confidence levels on the number of fixations and their duration shows a significant negative relationship in the two cases. Both the self-reported confidence level ($\beta = -0.1098$; $p < 0.0001$; two-tailed) and the number of contracts traded ($\beta = -0.0320$; $p = 0.0066$; two-tailed) are negatively related to the participants' reported level of confidence, thus **supporting H2**. The same directional relationship is found for the fixation duration that is negatively related to the self-reported confidence level ($\beta = -0.1216$; $p < 0.0001$; two-tailed) and the number of traded contracts ($\beta = -0.0399$; $p = 0.0017$; two-tailed). As a result, we can say that the more often and with more intensity a participant looks at the charts, the less confident he is in making an investment decision.

3- The effect of the visual working memory performance on both measures of confidence shows a negative relationship, but only marginally significantly so for the self-reported confidence level ($\beta = -0.1637$; $p = 0.0846$; two-tailed). It is therefore not clear that **H3** is supported because, even though participants with higher visual working memory trade less contracts and report a lower level of confidence, the impact is not significant at the usual statistical levels.

4- The relationship between risk tolerance and confidence, however, measured, is insignificant for both IAT measures. We thus find **no support for H4**, which tells us that risk tolerance is not correlated with the participants' level of over-confidence.

In the last panel of Table 2, we test the relationship between a participant's arousal and his/her level of confidence. We find positive relationships for arousal with the two measures of confidence, but only with the self-reported level of confidence is the relationship significant ($\beta = 0.0747$; $p < 0.0086$; two-tailed); the positive relationship with the number of contracts traded is only marginally significant at the 10% level ($\beta = 0.0530$; $p < 0.0934$; two-tailed). We can thus say that we find **support for H5**, which means that participants who experience a higher level of arousal are likely overconfident as well.

Ⅵ. Discussion

The purpose of our study was to determine the relationship between traders' overconfidence and their cognitive processes and traits. More precisely, we attempted to determine the relationship between overconfidence and visual attention, visual working memory performance, implicit risk tolerance and physiological arousal. To do this, we conducted a correlational study involving trading simulations and investment scenarios. We aimed to explain through which cognitive processes overconfidence is related to increased trading volume and reduced performance.

H1 stated that overconfidence reduces traders' performance. We find evidence supporting this hypothesis for both the investment survey and trading simulations. We find that higher trading volumes result in a lower net profit, as indicated by overconfidence in previous studies (Barber and Odean 2000; Grinblatt and Keloharju 2009; Glaser and Weber 2007; Statman *et al.* 2006). We can thus conclude that overconfidence is likely associated with reduced performance from traders.

H2 stated that overconfidence should decrease the time spent looking at a chart before making an investment decision increases. We find that both the number of fixations and their duration are lower when confidence measures are high, supporting this hypothesis. These results are in line with previous findings on overconfidence and visual attention (Innocenti *et al.* 2010). We thus conclude that overconfidence correlates with a decrease in time spent looking at the chart. A possible explanation for this result is that overconfident participants see a pattern in the chart (which isn't there), thus shortening the time spent analyzing the visual stimuli and precipitating their decision.

H3 stated that traders with lower visual working memory performance would be more overconfident. Our results support this hypothesis for both the investment survey and trading simulations; however, only the self-reported confidence estimate is significant for the investment survey. Since participants can take as much time as they need to answer the investment survey, they are probably better able to manage the cognitive load. This provides a likely explanation for why we find no link between the number of contracts traded and the participants' visual working memory performance. These results also support previous studies indicating that limited working memory capacity makes individuals overconfident (Juslin *et al.* 2007; Hansson *et al.* 2008). We thus propose that participants with lower visual working memory are also likely to be overconfident.

H4 stated that participants with higher risk tolerance are likely overconfident as well since they are more affected by their emotions and impulsions. We find significant results regarding the implicit risk tolerance only for the trading simulations. One possible reason for these insignificant coefficients comes from the difference in the type of tasks. Since the investment survey is a task where participants have time to think before deciding, they were more likely to rely more on their controlled processes than their automatic processes. On the other hand, we see significant results for the trading simulations, which is a time-paced task where participants need to react quickly and thus have little time to think before acting. In addition, the results are similar for both IAT scores. Implicit risk tolerance seems to correspond to traders' risk tolerance in situations where there is insufficient time to engage controlled processes, like high-volatility trading sessions, market bubbles and crashes. Using an implicit risk tolerance task test jointly with a typical risk tolerance questionnaire should improve risk tolerance profiling issues.

H5 stated any participant's overconfidence is positively correlated with his/her emotional arousal. We find such a positive correlation in support of our fifth hypothesis. These results are also supported by previous findings on emotional levels experienced (Lo *et al.* 2005; Schunk and Betsch 2006; Chu *et al.* 2012). Since arousal is linked to overconfidence, it may be useful for traders to be able to regulate their emotions in order to perform better.

Ⅶ. Conclusion

In conclusion, the results presented in our study suggest that many cognitive processes play a role in explaining why overconfident traders perform less well than non-overconfident traders. We found in particular that traders who display overconfidence fixed the chart less often and for shorter periods. Also, lower visual working memory performance and higher implicit risk tolerance seem to be correlated with overconfidence. The same can be said of participants with higher arousal: They displayed more overconfidence and thus, lower returns.

This study contributes to existing literature in two ways. First, this is the first study that draws a comprehensive understanding of how cognitive functions and emotional states of traders are articulated in the context of overconfidence. As such, our study contributes to our understanding of which cognitive processes are associated with overconfidence, which leads to lower performance. Second, the methodology we develop appears useful in testing novices as well as more senior traders and experienced investors in a financial context.

This study has three important limitations. First, since we do not manipulate the cognitive processes, we are only able to determine that visual attention, visual working memory and implicit risk tolerance are correlated with overconfidence, which itself results in lower performance. The second limitation of our study is our sample size. Although our results are original, future research using a larger sample of more senior traders and experienced investors would allow one to reach conclusions that are more relevant to capital market participants. Increasing the sample size would allow more robust inferences, especially for the trading simulations. Since our participants were only novice traders, we cannot draw any conclusions about professional traders so that our findings may only apply to novice traders and are less significant for experts. Third, and finally, our results are more correlates than the result of a clear cause-and-effect experiment.

Future research on overconfidence should seek to confirm the relationships we highlighted in this study in addition to determining their causality. For example, future research could examine how performance varies when a trader's working memory is loaded. Another approach could be to have different conditions where traders need to try to regulate or follow their emotions. Moreover, multivariate analyses can be performed to determine the respective weights of visual attention, visual working memory and implicit risk tolerance on overconfidence. Future research on risk tolerance should study whether the combination of the IAT score and risk tolerance questionnaire can explain the risk behavior of investors. In conclusion, this study confirms that the behavior of overconfident traders is linked to their cognitive processes and emotional states.

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Editorial Principles

1. Mission

The International Review of Financial Consumers (IRFC) aims to offer a communication platform for scholars, regulators, and practitioners to share their latest academic research on financial consumers and related public policy issues in both advanced economies and emerging market countries. All theoretical, empirical, and policy papers of relevancy are welcome, with the following as the topics to cover:

① protection for financial consumers
② business ethics of financial institutions
③ market discipline of financial industries
④ corporate social responsibility of financial institutions
⑤ renovation or innovation of law and regulations related to financial consumption
⑥ public policies for financial consumption
⑦ fair trading of financial products
⑧ dispute resolution for financial consumption
⑨ case studies of best practices for financial consumption
⑩ international comparison on any of the above topics

2. Publication schedule and contents

IRFC, the affiliated journal of the International Academy of Financial Consumers (IAFICO), will be published twice a year - April and October each year - and will pursue to be the first international academic journal focusing on the research related to financial consumers. As the contribution of financial consumption becomes increasingly important to the national economy for most countries, how to maintain an efficient and equitable financial market is an imminent issue for research. The trend of globalization and liberalization policies has reinforced the challenges in financial markets. Not only the financial instruments become more complicated and hard to understand by the public, but also the frequent changes in regulations and business practices cause confusions to the financial consumers. Consumption disputes regarding the financial products have drawn attention by the media in recent years. IRFC attempts to serve as a forum to publish and share original and innovative research, both academic and policy-oriented, on all the above issues.

3. On ethics for research

The range of research misconducts

① Misconducts related to academic research ("misconducts" hereafter) means that fabrication, falsification, plagiarism, unfair showing of papers' author, during research proposal, research performing, research report and research presentation, etc. It is as follows.

1) “Fabrication” is the intentional misrepresentation of research results by making up data or research result.

2) “Falsification” is the distortion of research contents or results by manipulating research materials, equipment and processes, or changing or omitting data or results.

3) “Plagiarism” is the appropriation of another person's ideas, processes or results, without giving appropriate approval or quotation.

4) “Self-plagiarism” is the reusing a large portion of their own previously written research.

5) “Unfair showing of papers' author” is not qualifying people, who have been contributing to research contents or results scientifically, industrially and politically, as an author without just reason, or qualifying people, who have not been contributing the same, as an author with an expression of thanks or respectful treatment.

6) Obstructing investigation about misconducts of their own or others, or harming an informant.

7) Action which is out range of usually acceptable in the course of the research.

8) Action which is suggestion, pressure or threat to others to do the above things.

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Types of plagiarism

Following two forms are defined the representative action of research misconducts (Plagiarism).

① Using the original author's idea, logic, unique terms, data, system of analysis without indicate the source.

② Indicating the source but copying the original paper's words, idea, data and so on without quotation marks.

Author Guidelines

General

The IRFC publishes rigorous and original research related to protection of financial consumers. IRFCs shall be published twice a year, in April and in October. Papers submissions shall be accepted throughout the year. Editorial Board will evaluate manuscripts in terms of research contribution to the field and paper's quality. Research area includes but is not limited to the following topics:

1. Protection for financial consumers
2. Business ethics of financial institutions
3. Market discipline of financial industries
4. Corporate social responsibility of financial institutions
5. Renovation or innovation of law and regulations related to financial consumption
6. Public policies for financial consumption
7. Innovation or fair trading of financial products
8. Dispute resolution for financial consumption
9. Case studies of best practices for financial services or their consumption
10. International comparison of protection for financial consumers.

Publication Ethics

When authors submit their manuscripts to IRFC for publication consideration, they agree to abide by IRFC's publication requirements. In particular, authors confirm that:

- The manuscript is not under review for publication elsewhere, and will not be submitted to another publication entity during the review period at IRFC
- The empirical results of the manuscript have not been previously published.
- The manuscript has not previously been submitted to IRFC for review. Submission of manuscripts previously presented at a conference or concurrently considered for presentation at a conference does not disqualify a manuscript from submission to IRFC.
- Working papers, prior drafts or final versions of the submitted manuscripts posted on a website will be taken out of it during the review process for the purposes of blind review.

Submission Fee

There is no fee for a submission of an article at the IRFC journal.

Preparing a Manuscript for Submission

1. Papers must be submitted in Microsoft Word format. The structure of the work should be as suggested by the Publication Manual of the American Psychological Association 6 edition:
   - Title
   - Author's name and institutional affiliation
   - Author note
   - Abstract
   - Introduction
   - Method
   - Results
   - Discussion
   - References
   - Appendices and supplemental materials.

2. Manuscripts should be written as concisely as possible without sacrificing meaningfulness and clarity. They should be no longer than 40 double-spaced pages with one-inch margins and Times New Roman 12-point font, including references, tables, figures and appendixes.

3. Submitted papers should be in English, with grammar, spelling and punctuation thoroughly checked.

4. Make sure lettering and sizing of your manuscript, as well as bullet points and numerals are uniform.

5. The title page must include the title of the paper and an abstract of no more than 200 words. Indicate not more than seven key words after the abstract.

6. Please provide author name(s) contact information in a separate page.

7. Sections, including introduction, should be numbered in Roman numerals. Subsection headings should be in letters, e.g. A, B, C.

8. Tables must be typewritten, not in the form of pictures, and given Arabic numerals. They should have a descriptive name following the table number. Tables can be placed either after the text in the paper or in appendix section, if too detailed.

9. Figures must be given Arabic numbers as well and must not include any explanatory materials, which should go to the legend or to the caption. Captions should include a brief description of the figure. Please ensure that figures are of as high quality as possible.

10. The last section of a paper should include main conclusions of the research.

11. References should be placed at the end of the paper. All references must be in the style of American Psychological Association 6th edition, the basics can be found here. Make sure all in-text citations are presented in the reference list. The examples of reference entries are as follows:

For monographs:

Henderson, J. (2012). *Health economics and policy* (5th ed.). Mason, OH: South-Western, Cengage Learning.

For contributions to collective works:

Leonidou, L. (Eds.). (2018). Advances in global marketing: A research anthology.

For periodicals:

Nam, S. (2006). A study on the causality between the insurance and economic growth, *Korea Insurance Journal* 74, 169-197.

Communication

With any issues regarding the publication of your paper, please email the IRFC Editor, Professor Sharon Tennyson, at irfc@cornell.edu.

Review Process

- Initial review process
  When a manuscript is first received, the editor makes a preliminary screening of a manuscript to assess whether it fits the criteria of IRFC's mission and publication principles.

- Normal review process
  For each manuscript that passes the initial review stage, the editor assigns one qualified reviewer from the IRFC's Editorial Board and one other qualified reviewer. All submissions will be blind reviewed.

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Research Ethics

We are committed to publishing only high quality research. Our policy on research ethics is based on recommendations of the Committee on Publication Ethics (COPE). COPE is an internationally recognized non-profit organization, dedicated to educating editors and publishers in publication ethics. Hence, authors are encouraged to study the IRFC's ethics principles and abide by them.

Authorship and Contributorship

Authorship misconducts (or "misconducts") may include fabrication, falsification, plagiarism, unfair representation of some authors. Misconduct may occur during research proposal, research performing, and research report and research presentation. By submitting their manuscript, authors confirm they are not engaged in any of these actions:

1) Fabrication is the intentional misrepresentation of research results by making up data or research result.
2) Falsification is the distortion of research contents or results by manipulating research materials, equipment and processes, or changing or omitting data or results.
3) Plagiarism is the appropriation of another person's ideas, processes or results, without giving appropriate approval or quotation. We define two types of plagiarism:
    3.1) Using the original author's idea, logic, unique terms, data, system of analysis without indicating the source.
    3.2) Indicating the source but copying the original paper's words, ideas, data and so on without quotation marks.
4) Self-plagiarism is the reusing of a large portion of author's own previously written research.

Other misconducts include:

5) Indicating as authors those who did not contribute but are credited ("guest", or "gift" authorships), and those who contributed but are not credited ("ghost" authors).
6) Obstructing investigation of their own or other authors' misconducts.
7) Pressure on, suggestion or threat to others to do the above things.
8) Any other action which is usually unacceptable in the course of research.

In case that the Editorial Board reveals or suspects any misconduct, it will contact the author for clarification or contact an author's institution for further investigation. Allegations of ethical misconducts may lead to rejection of the manuscript submitted for publication. If an ethical misconduct is revealed after publication of a manuscript, the article may be retracted or removed. We encourage authors and readers of the Journal to notify the Editorial Board of any alleged misconducts. The Board will keep the names of those who have notified anonymous.

Conflict of Interest

We are committed to identifying a conflict of interest whenever it arises. IRFC policies on the conflict of interest include responsibilities for authors, editors, board members and reviewers.

Conflict of interest arises whenever a personal interest of an author, editor, board member or reviewer may affect objectivity of the research or the fulfillment of journal related obligations. This may include financial (e.g. employment, stock ownership, providing consulting services), intellectual (e.g. patent ownership), political, religious or other personal interests. Authors should disclose their conflict of interest in a Manuscript submission form when sending their manuscript. Editors, editorial board members and reviewers should submit a statement prior to engaging in these roles for a manuscript.

Funding information is considered separately from conflicts of interest. IRFC requires authors to whether funding has been received for research, as well as funding sources.

Complaints and appeals

If you are a Journal reader and recognize any thoughts, ideas or other materials that are used in a published IRFC article without giving credit to the initial author, we encourage you to notify the Editorial Board. Authors who contributed to the published research but were not given credit for it should also contact the Journal's Board. The Board will reply to all complaints and notify the complainant of its decision and following actions. The Board shall not reveal any information on those who notify it on possible misconducts. All notifications will be considered and investigated.

In case of any complaints against the Journal, its staff or Editorial Board members, you should submit your statement to the Board explaining your position and reasoning. Staff or Board members against whom a complaint is submitted will not participate in further investigation and consideration of the case.

Data and Reproducibility

IRFC does not charge for access to our journals, and makes all articles available online.

The Journal may ask authors to provide any raw data necessary to understand and assess the research, including input data and computer codes. Any restrictions and objections to this policy should be disclosed when submitting the article, otherwise will not be considered as valid later.

Research Ethics

Authors should comply with all standards adopted by their institution and industry in relation to research involving hazards, human or animal objects. If a manuscript contains images or personal data of individuals participating in the research, authors should have individuals' consent and ethics committee approval. When submitting an article, an author should provide necessary statements of compliance.

Fundamental Errors

If an author identifies any significant error in their paper after its publication, it is the author's responsibility to notify the Editorial Board promptly. Authors should provide their assistance in implementing retractions or corrections of the paper. We also encourage readers to notify the Board should they identify any errors in the published materials.

Bylaws of the International Academy of Financial Consumers (IAFICO)

March 31, 2015
First revision on April 19, 2016
Second revision on September 30, 2019

Section 1 General Provisions

Article 1 (Official Name)

The official name of this academic society shall be the "International Academy of Financial Consumers (IAFICO hereafter)".

Article 2 (Registered office and Branch offices)

The registered office is to be in Seoul, South Korea. Branch offices may be established in provincial cities in Korea or overseas should the need arise.

Section 2 Objectives and Undertakings

Article 3 (Objectives)

*Pending
The IAFICO is a non-profit association aiming at promoting and developing at an international level collaboration among its members for the study of various issues relating to financial consumers, including its education, legislation, creation of best practices, supervision, and policy advancement to contribute to the development of the global economy and financial market, through investigation or research into financial consumers, and other academic activities.

Article 4 (Undertakings)

The following activities shall be carried out in order to achieve the objectives of the IAFICO.
1. Publication of journal and other literature
2. Hosting of academic conferences
3. Additional undertakings corresponding to the objectives of the academic society which are deemed necessary at the board of directors meeting or the general meeting

Section 3 Membership

Article 5 (Requirements and Categories)

The IAFICO shall have following categories of membership:

① Individual member
Individual members are categorized further into a regular member or an associate member.

1. Regular member shall be a specialist in the area such as finance, consumer studies, economics, management, law, or education etc, and must be a full-time instructor at a domestic or overseas university, a researcher at a research institute with equivalent experience, or should hold equal credentials to those mentioned previously, and shall become its member by the approval of the board of directors. Regular members attend general meetings and may participate in discussions, hold the right to vote, and are eligible to be elected to a director or other status of the IAFICO.
2. Associate members shall be divided into either a student member, who is a current domestic or overseas graduate school student, or an ordinary member, who works for a financial institution or a related organization. Associate members do not hold the right to vote and are not eligible to be elected to a director or other status of IAFICO.
3. Both regular member and associate member must pay the membership fee to the IAFICO every year.
4. In the case that a decision is made by the Board of Directors to expel a member due to a violation of the objective of the society, or demeaning the society, or in the case that a member fails to pay the membership fees for two years continuously without prior notice, their membership shall be revoked.

② Institutional member

1. Institutional member shall be organizations related to financial consumers who do not damage the impartiality of the IAFICO subject to approval of the Board of Directors. Institutional members do not hold the right to vote and are not eligible for election.
2. Institutional member must pay its membership fee to the IAFICO every year.

Section 4 Organization

Article 6 (Designation of Board of Director)

The following Directors are designated to constitute the Board of Directors to run the IAFICO.

1. Chairperson
2. Vice-Chairperson
3. President
4. Vice-President
5. ordinary Directors
6. Auditor

Article 7 (Election of Board Members and Director)

① The Chairperson, Directors, and Auditors shall be elected or dismissed at the general meeting.
② Appointment of the Directors may be entrusted to the Chairperson pursuant to the resolution of the general meeting.
③ The Vice-Chairperson, President, and Vice-President shall be appointed and dismissed by the Board of Directors.

Article 8 (General Meetings)

① General meeting shall decide following matters relating to the activities of the IAFICO.
1. Amendments to the Bylaws
2. Approval of the budget and settlement of accounts
3. Election or Dismissal of the Chairman
4. Election or dismissal of Auditors
5. Regulations concerning the duty and rights of members
6. Resolutions regarding items submitted by the President or Board of Directors
7. Other important matters

② The Chairperson must call a regular general meeting at least once a year and report on the undertakings of the IAFICO. Provisional general meetings may also be held by the call of the Chairperson, or at the request of at least a quarter of current regular members, or according to the resolution of the Board of Directors.
③ At a general meeting, a quorum is formed by one third of regular members. However, regular members who are not able to participate in the general meeting in person may be represented by proxy, by entrusting a specific regular member attending the general meeting with their attendance or voting right. In this case the letter of proxy is included in the number of attendees.
④ Resolutions at the general meeting will be made according to the majority vote of the attending members who hold the right to vote.
⑤ In principle, the general meeting shall be held with face-to-face meeting, however, it may be held web-based meeting when needed.

Article 9 (Auditors)

① The auditors shall audit financial affairs, accounts and other transactions of IAFICO, shall participate in, and may speak at board meeting, and must present an auditor’s report at the regular general meeting.
② There shall be two appointed auditors.
③ Auditors are elected at the general meeting.
④ An auditor shall serve a term of two years and may be reappointed.

Article 10 (Board of Directors)

① The Board of directors shall be made up of chairperson and fewer than 80 directors.
② The Board of Directors shall decide a plan of operation and establish the budget, in addition to matters on the running of IAFICO.
③ Board meeting requires a quorum of at least one third of current board members. Resolutions at the Board meeting will be made according to the majority vote of the attending members. However, board members

who are not able to participate in the board meeting in person may be represented by proxy, by entrusting another specific board member attending the board meeting with their attendance or voting right.

④ A board member shall serve a term of two years, with a possibility of serving consecutive terms.

⑤ A number of sub-committees or branches in each country or region may be set up under the Board of Directors to support the running of the IAFICO.

Article 11 (Steering Committee)

① The Board of Directors may entrust some decisions relating to the conducting of business to the Steering Committee.

② The Steering Committee shall be comprised of the Chairperson, Vice-Chairperson, President, and the heads of each subcommittee.

③ Temporary task forces may be established by the Steering Committee when necessary to run the business of the Steering Committee.

Article 12 (Chairperson)

① The Chairperson shall represent the IAFICO and chair its general meeting and board meeting.

② There shall be one appointed Chairperson who serves a term of three years.

③ In the case of an accident involving the Chairperson, the Vice-Chairperson shall complete the remaining term of office of less than one year. If it lasts longer than one year, a new Chairperson shall be elected at the general meeting.

④ A new Chairperson should be elected at the general meeting one year prior to the end of the current Chairperson's term of office.

⑤ Should it be judged that it is difficult for the Chairperson to carry out their duty any longer, he or she may be dismissed from their post by the decision of the Board of Directors and general meeting.

Article 13 (Vice-Chairperson)

① The Vice-Chairperson shall assist the Chairperson, and serve as a member of the Board of Directors.

② The Vice-Chairperson shall serve a term of two years, or the remaining term of office of the Chairperson, whichever is shortest.

③ The Vice-Chairperson shall be elected from one of the regular members at a meeting of the Board of Directors, according to the recommendation of the Chairperson.

④ The Vice-Chairperson may be reappointed.

Article 14 (President)

① During its term of office, the President shall become the head of the organizing committee supervising international conferences, and serves for a term of one year. The President shall attend the board meeting as a member of the Board of Directors.

② The succeeding President shall be elected by the Board of Directors after considering their ability to organize and host the following year's conferences. The succeeding President shall also attend board meeting as a member of the Board of Directors.

③ The Board of Directors may elect the next succeeding President should the need arise. The next succeeding President shall also attend board meeting as a member of the Board of Directors.

④ The President, succeeding President, and the following President may appoint a Vice- President respectively by obtaining approval of the Board of Directors.

⑤ The appointment and dismissal of the President is decided at the board meeting.

Article 15 (Vice-President)

① A Vice-President is a member of the Board of Directors and shall assist the President, supervise applicable international conferences.

② A Vice-President is recommended by the President and shall be approved by the Board of Directors.

③ Multiple Vice-Presidents may be appointed.

④ A vice-President shall serve a term of one year, the same as the term of President.

⑤ In the event of an accident involving the President, a Vice-President shall fulfil the President's duties during the remaining term of office.

Article 16 (Editorial Board)

① The Editorial Board shall be responsible for editing of journals and other materials to be published by the IAFICO.

② The head of the Editorial Board shall be appointed by the Board of Directors, and shall serve a term of office decided by the Board of Directors.

③ The head of the Editorial Board shall be a member of the Board of Directors.

④ Additional matters concerning the running of the editorial board shall be decided separately by the Board of Directors.

Article 17 (Advisory Board and Consultants)

① The Chairperson may select individuals who could make a large contribution to the development of the IAFICO, and appoint them as advisors subject to the approval of the Board of Directors.

② The Chairperson may appoint consultants subject to the approval of the Board of Directors in order to receive advice relating to all business matters of the IAFICO, such as development strategies, conferences, research plans, and research projects etc.

③ Advisors and consultants shall serve terms of one year and may be reappointed.

Section 5 Financial Affairs

Article 18 (Accounting and Revenue)

① The fiscal year of the IAFICO shall run from the 1st of January to the 31st of December each year.

② The finance required to operate the IAFICO shall be sourced from membership fees, member contributions, society participation fees, and other incomes. Related matters shall be decided by the Board of Directors or the Steering Committee.
③ Should the need arise, the IAFICO may accept sponsored research, donations or financial support from external parties in order to support the business performance of the IAFICO. The Chairperson shall report the details of these at the board meeting.
④ Chairperson should report all the donation from outside and their usage of the year at the IAFICO homepage by the end of March of the next accounting year.

Section 6 Supplementary Rules

Article 19 (Revision of the Bylaws)

① Any other matters not stipulated by this Bylaws shall be resolved by the Board of Directors.
② Revision of the Bylaws shall be carried out, by the proposition of the Board of Directors, or at least one-tenth of regular members, at a general meeting where at least one-third of the total regular members are in attendance, or at a provisional general meeting, with the agreement of at least two-thirds of current members.

Article 20 (Dissolution)

Should the IAFICO intend to be dissolved, it must be decided upon at a general meeting with the agreement of at least two-thirds of current members, and permission must also be received from the Fair Trade Commission. Except for bankruptcy, the dissolution must be registered and reported to the Ministry of Strategy and Finance within three weeks, accompanied by a certified copy of register.

Article 21 (Residual Property upon Dissolution)

Should the IAFC be dissolved, according to article 77 of the Korean civil law, all remaining assets of IAFICO shall belong to the state, local government, or other non-profit corporations carrying similar objectives.

Additional Clause

These Bylaws shall become effective from the 1st April 2015

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