Digital Finance: A Survey of Gaps In Its Ecosystem

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DIGITAL FINANCE:
A SURVEY OF GAPS IN ITS ECOSYSTEM

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INTRODUCTION

The present survey consists of four mutually related chapters that have the purpose of setting out the task that confronts the desideratum of creating a collectivity of doers committed to achieving a world in which digital finance is widely accepted and applied and in which thereby the members of the bottom of the pyramid are successfully brought into the financial system.

The first chapter refers to Gaps in Topics and Topical Knowledge, and focuses on the many facets that are involved in creating the desired ecosystem where knowledge is still lacking. It covers the full range of gaps, from those found in regulation through gaps extant in interconnectivity, to gaps identified in the area of general acceptance and in value added applications.

The second chapter deals with Gaps in Techniques, where the purpose is to identify techniques that may prove useful in providing guidance on how to move incrementally forward in building a workable digital finance ecosystem and to sketch out what those techniques might look like.

The third chapter focuses on Gaps in Skills of Influence, where the concern is to identify the gaps in availability of the human skills that facilitate interaction between individuals and institutions.

The fourth and final chapter deals with Gaps in Motivators, where the purpose is to identify who motivates the advances in Digital Finance and what gaps there might be in the motivational landscape. In this chapter, particular attention is paid to the role of Standard Setting Bodies (SSBs), the WB, IMF and similar international bodies; the Alliance for Financial Inclusion (AFI), and the Gates Foundation.

By virtue of the emphasis on gaps, this survey does not constitute in any sense a compendium of the existing expertise, nor of the existing literature. The purpose is to explore what is not known rather than what is known. Naturally, it is necessary to have what is known as a starting point, however, what is known to some or at some level, is often not known to others, hence for the purposes of capability creation, distinctions must be drawn between different segments of the knowledge requiring collectivity, in order to finally obtain a proper map of the gaps that exist.

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Chapter 1

GAPS IN TOPICS AND TOPICAL KNOWLEDGE

In this chapter, the conceptual structure applied in the Gates Foundation’s Level One work will be used, i.e. a distinction will be drawn between Rules (the principles by which the digital finance system functions or should function), Rails (the mechanism by which the principles become reality), Accounts (which embody what the user of the system sees on his/her books), and Applications (the means through which additional benefits get generated for the financial system and its users).

RULES

Here we want to consider two fundamental aspects: (i) enabling legislation cum regulation, and, (ii) the structure of competition.

Enabling Legislation cum Regulation

- It is not obvious at first glance why or when digital finance needs to be regulated. Would a “free market” in such innovative mechanisms not do much better, especially while suitable forms of digital finance are tried, adopted or abandoned? Would too early straight-jacketing of the market not be harmful and either postpone adoption of the innovations involved or destroy the business case for them?
- There is evidence that excessive and, above all, too early regulation has either postponed or stymied adoption. There is also evidence that regulation adopted late has resulted in a less than optimal structure of the resulting industry.
- The instinct of Legislators and also of Regulators tends to be that anything to do with money or where deposits of the public are involved needs to be authorized, in order to ensure prudential requirements. That is why the issuance of money is a monopoly of the Central Bank and the authorization of banking institutions of whatever variety is the purview of the Prudential Regulator.
- There is clearly a middle ground here and wisdom on the matter has been accumulating rapidly in the last few years. Thus, much information is available, and a number of agencies are active in the diffusion of best practice. Yet Capability availability can at best be regarded as Medium.

Who needs to Know?

- Political echelon
  - Minister of Finance
  - Head of the Financial Regulating Agency
  - Chair of the Congressional Committee on Banking or Economic Legislation
- Technical echelon
  - Regulator Staff
  - Ministry of Finance Staff
It matters much whether a country has a formalized statement of a National Financial Inclusion Strategy or whether this Policy Statement is still in gestation or has not even begun to be worked upon. It also matters to what extent this Strategy, if it exists, really impacts on what the various institutions of government do. Under the best of circumstances there is full collaboration within the government and information and knowledge is shared amply and across agencies. However, the more plausible circumstance is one where information, precedents from other countries, and, therefore, adequacy of approach is highly disparate across agencies, even in the Executive Branch, and that sharing of technical information with the Congress and its Committees leaves much to be desired. The implication is that there is much to be done in increasing the Capability for a suitable development of enabling legislation and regulation.

**What Needs to be Known?**

Enacting enabling legislation for digital finance implies no less that the creation of a whole new ecosystem that will impact the economy of the future in many ways, some of which are at the moment still unpredictable. Hence it is a task that needs to be approached with a profound understanding of the interaction of markets and regulation in the specific economy being legislated for and also with a clear understanding of the minimum requirements for a digital finance system to fulfill its potential.

The minimum requirements for digital finance to be effective seem to be fairly clear. There has to be interoperability at three levels: (a) between financial institutions, and ideally between all financial institutions; (b) between all telcos; and, (c) between all cash-in/cash-out facilities. Much less clear is how particular jurisdictions can implement these features in the market place.

Particular jurisdictions will naturally differ considerably with regard to how their markets interact with financial (or any other) regulation. Much depends on the size of the economy, on how open it is to international trade, on how concentrated control of the major enterprises (especially banks) is, on traditions regarding anti-trust regulation and consumer protection, on the size of the informal sector in relation to the rest of the economy, and on the relationship between political power on the one hand and economic and financial power on the other.

Such factors will affect who is allowed to operate under the new enabling legislation: only banks, finance companies too, specialized digital finance companies, subsidiaries of large retailing conglomerates? Such factors will also affect who regulates under the new legislation: the Ministry of Finance, the Independent Financial Regulator, if there is one, the Central Bank? Will the Telecommunications Regulator have a role – remember there will be an issue as to what price the telcos will charge the digital finance users for each transaction? What role for the Consumer Protection Unit, if there is one? And should Consumer Protection extend only to consumers or also to micro and small business, especially informal ones?
It is tempting to think that there is a “one size fits all” answer to these questions. There is at best a desired optimum that will only rarely exist in reality, but, since we are close to being “present at the creation”, there is at least the hope that major mistakes can be avoided by providing guidance early so that imitators will not have to repeat the mistakes of the early innovators. That is the essential role of the Capability creators.

What needs to be known in this instance is what has happened elsewhere as different alternatives were tried. Precedent here matters, not only in terms of the outcome, but also in terms of the feasibility of trying. If 15 countries have adopted a particular article in their enabling legislation, that certainly makes it easier for the 16th to do so, even if it may not accord particularly with legislative tradition in that jurisdiction. The carriers of experience from one place to another therefore are particularly important in this context, as is peer learning. But, certainly, that does not exclude the contribution of de novo solutions, for this is a structure in the process of creation.

What Capabilities are Needed?

We are dealing with innovation. Therefore leadership and courage are essential. It will still be a while before digital finance will have become the province of humdrum imitators. Leadership and courage will be needed in different dimensions: (i) political, in order to bring about the legislation that makes it all possible, and for it to be sensible legislation, (ii) regulatory, so that the regs adopted are viable, administratively implementable, and not unduly burdensome on the industry. Indeed, ideally, they would simplify matters on a number of dimensions and thereby capture the industry’s support. Courage on technical matters is not in great supply among regulators; their province is prudence and where new matters are concerned, the natural tendency is to over-regulate, just in case! Hence the Head Regulator needs to have the courage to go against the instinct of his agency, precisely to ensure the rapid success of the innovation.

The next group of Capabilities is much more run-of-the-mill. It is necessary to know what has worked elsewhere and why. Also, what has not worked and why. Or what undesirable unexpected consequences resulted and how they were eventually fixed, if at all. Not replicating another’s mistakes are more than half the battle, but that requires a lot of information as well as keen understanding of other jurisdictions. Remember that what works in one place may not work in another, and vice versa. So what did not work in one place may be just the right thing to try in another!!

The difficulty here consists in finding the right balance between in-depth knowledge of particular cases and the extraction from these particular cases of generalizations that can usefully be applied elsewhere. Peer learning helps; so do really experienced experts. But with still limited historical experience, the base to draw on is precarious. Intuition on which way to go, judgement, and leaving open means for correcting errors will still need to play a major role.

Who is Creating Pertinent Capability?
• AFI through peer learning. This permits a de facto scaling up which would not be possible without the existence of this organization.

• Gates through Ground Zero work. Provides a desired standard against which to measure what any particular jurisdiction is able to achieve.

• Fletcher leadership program

• WB/OTA/Others through expert consultants on National Financial Inclusion Strategy and other specific requests

• Selected others through ad-hoc workshops and seminars

Gaps to be Addressed

• Development of patterns of stylized facts to facilitate diagnostics and guide policy at all levels.

• Scaling up

Summary

Who
• Political echelon
• Minister of Finance
• Head of the Financial Regulating Agency
• Chair of the Congressional Committee on Banking or Economic Legislation

• Technical echelon
• Regulator Staff
• Ministry of Finance Staff
• Central Bank Staff
• Congressional/Committee Staffs

• Industry Representatives

What
• Interaction industry behavior/regs
• Recognize minimum needs of digital finance
• Be cognizant of the experimental nature of the first steps

Capabilities needed:
• Leadership and courage, political and regulatory
• Info on what worked and what failed elsewhere and why
• Judgement re transfer potential and applicability

The Structure of Competition

• Digital finance does not appear in a vacuum, rather it is inserted into a pre-existing economic structure which inevitably affects, indeed limits, the impact of introducing digital finance.
As a result of the appearance of digital finance, two industries that heretofore had only limited interaction come into very close contact: telecommunications and banking (the latter should be understood as including broadly all manner of finance).

Telecom is an industry characterized by few players, often multinationals, that have deep pockets, extensive technological resources and the potential to deploy across many countries. Moreover, it is an industry with high fixed and low variable costs, indeed short run marginal cost is negligible.

The economic and financial equilibrium between different telcos, in partially connected and partially segregated markets, is highly complex and not necessarily stable. Various kinds of game theoretic strategies apply to pricing, customer acquisition and introduction of newer technologies, even within the confines of the telcom market itself. Adding the possibility of an expansion into a new and heretofore novel market, adds a further level of complexity.

In turn, finance is an industry with many more players, but also with considerable concentration. While many banks are multinationals, they tend to play much more within national boundaries, probably because they are required to operate within national regulatory jurisdictions.

Despite their multinational nature, telcos often display simultaneously more than one strategy, as though different parts of the same corporate system had different views on how to approach participation in a whole new industry.

On the banking side, the challenge of operating a new technology also requires adaptation of established procedures and routines and different size banking institutions respond in different ways to the new conditions.

When telcos and banks interact in the same space, a variety of outcomes may result. In principle, banks need to acquire certain services from telcos, however, they may do so at arms’ length or with a variety of short and long term joint operations agreements. The resultant sharing of markets and revenues can be very varied. Indeed, different telcos may team up with different banks in different ways. The particular ways in which this interaction occurs will define prices of digital services to the consumer, determine the rate at which usage of digital services will grow and what kind of value added services are ultimately provided and when this will occur.

The bottom line is that when banks and telcos interact, many outcomes are possible. When these two industries are left to themselves to determine the outcome in a mix of negotiation and competition, there is no guarantee that the result will be socially optimal. There is, therefore, a strong case to be made that regulatory intervention is required.

On the other hand, without at least some knowledge of what outcome will result if the market is left to itself, it is hard to design the required regulatory intervention.

Finally, it should be noted that predicting the behavior of two oligopolistic industries in interaction, telcos and banking, is more of an art than a science, and, in addition, is highly specific to each particular case. Capability for analysis and policy design in this area is Low. Even at the level of stylized facts not much is available.

Who needs to Know?

- Technical echelon
  - Financial Regulator Staff
  - Telecoms Regulator Staff
  - Competition Authority Staff
  - Ministry of Finance Staff – mostly for information
Much depends on the responsibilities of the different government agencies, in particular, on the interaction between the two Regulators and the Competition Authority if there is one, and also on the role of the Ministry of Finance in regulatory matters. In turn, Congressional Committee Staffs need to know mostly for information purposes, unless new legislation turns out to be required (as, for instance, in order to give any one of the regulators price fixing authority).

Industry representatives clearly have a need to know. Moreover, there is no basis for assuming that they “naturally” have information on the behavior of other participants in their own industry, much less on the behavior of the partner industry (banks regarding tecoms and telcos regarding banks). At best, they will have information on their own company behavior, and even that cannot be assumed. The reason is simple: strategic decisions on such things as pricing, market share goals, what value added products to market, etc. are all made at the highest corporate levels and often need to be kept confidential in order to be successfully implemented. This is even more true when entering a completely new market. Then, certainly, each company’s strategy will be very closely held, in the interest of not giving the competition any advantage.

**What Needs to be Known?**

The purpose of policy intervention is to bring about a desired result, presumably one that will be superior to that occurring without the intervention.

Accordingly, what needs to be known is how different market participants are currently acting and how they are likely to act in the presence of new market opportunities in digital finance, and under different regulatory regimes. Given such reaction functions of market participants, it then becomes possible, in principle, to design an effective policy intervention.

Stating the principle is quite straightforward. Making it applicable in practice is another matter. Simple models of corporate behavior unfortunately fall short: we need fairly accurate predictions of the behavior of large operators under conditions of oligopolistic competition, already a regime which is hard to deal with even under simplified theoretical conditions. What is more, we need to predict such behavior in a context where accelerated change obtains in the relevant markets, i.e. the disruption which digital finance represents is introduced.

Yet, since decisions need to be made, and policy decided on, there is no alternative to the use of incomplete information, uncertain data and predictions that include a substantial degree of uncertainty. With predicted outcomes having a large potential error, provision for correction ex-post-facto turns out to be of the essence. This involves building policies that have corrective mechanisms included as part and parcel of the policy itself. The consequence is not only that corrections are made but that there is no surprise when such policy corrections occur: the private sector anticipates corrections will occur and it can partially predict in what direction they will occur, since the discrepancies between actual and desired policy outcome will be there for all to see.
What Capabilities are Needed?

- Deep understanding of market behavior of actors involved (banks, telcos, other financial service organizations)
- Conceive and design previously unexisting options (e.g. aggregators)
- Willingness to regulate/intervene as needed
- Leadership: political courage to stand up, take risks

Who is Creating Pertinent Capability?

- AFI, through its Peer Learning activities is permanently engaged in creating Capability to understand the evolving nature of market behavior. It also supports increased Capability on the part of Regulators to adopt the pertinent regulatory instruments.
- CGap and related divisions of the World Bank are repositories of knowledge and information on the behavior of Telcos and Telco Regulators, but are not currently structured to focus on the specific knowledge requirements for the purposes of digital finance regulation.
- Regional competition authorities are another source of Capability creation in matters of industries with strong economies of scale and with an oligopolistic structure.
- Industry bodies such as GSMA have an important role to play in Capability generation, in view of the strong interest of the industry as a whole in good regulation and in a stable evolution of the sector. Accordingly, they are a source of behavior, potential intra-industry conflicts and their resolution, and industry views on likely outcomes under different scenarios.

Gaps to be Addressed

- Development of patterns of stylized facts to facilitate diagnostics and guide policy at all levels.
- Cataloguing of typical behavior reactions of banks, telcos, banking regulators, telecom regulators in response to the various challenges they face
  - Business case for typical behavior categories
  - Regulatory logic for responses on the part of regulators
- Criteria for appropriate interventions by telco regulators and banking regulators.
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Summary

RULES: COMPETITION

Overall Capacity: High/Med/Low

Current Capacity Builders
- Peer learning through AFI
- GCAP + WB on specific request
- Peer learning other industry and regional competition authorities

Gaps
- Development of stylized facts to facilitate diagnostics and guide policy at all levels.
- Business case for typical behavior categories
- Regulatory logic for responses on the part of regulators.
- Criteria for appropriate interventions by telcom and banking regulators.

Who
- Technical echelon
- Financial Regulator Staff
- Telecoms Regulator Staff
- Competition Authority Staff
- Ministry of Finance Staff – mostly for information
- Congressional Committee Staffs – mostly for information
- Industry Representatives

What
- Understand behavioral consequences of different market structures
- Regulate/intervene as needed to serve public interest

Capabilities needed:
- Deep understanding of market behavior of actors involved (banks, telcos, other financial services organizations)
- Conceive and design previously unexisting options (e.g., aggregators)
- Leadership: political courage to stand up, take risks

RAILS

Here we want to consider: (i) supervision of the regs, (ii) the payment infrastructure, and, (iii) interoperability

Supervision of the Regs

- Suitable legislation leads to suitable regulations, and those regulations have to be implemented.
- Implementation of regs is far from an automatic affair: it is a very human enterprise, and therefore subject to the full set of vagaries of human interaction.
- Moreover, implementation is dependent on the team doing the implementing, and on the team upon which the implementation devolves. On neither side can one presume ease of implementation.
- On the Regulator’s side, implementation in the best of cases, stretches Capability: one confronts limitations in the number of personnel available, in the level of their training, in the budgets to supply them with the briefings and tools to allow them to effectively do their job and, finally, on the feed-back in order to ensure continuous improvement in supervision.
- The challenge of ensuring adequate supervision is particularly serious in jurisdictions with small populations. In such jurisdictions, the lack of sufficient well trained individuals to staff government positions is notorious. Government is subject to economies of scale and there is a minimum size that is indispensable. That applies to Central Banks and Financial Regulators as well. Hiring in ex-pats is a possible solution: some small island jurisdictions do so. But this is only a temporary solution. In the longer run, nationals need to fulfill the jobs of national governments.
- On the side of the supervised, there is also a challenge to be met. For supervision to be effective, and therefore, for the regulations to accomplish their goal, the supervised must understand the purpose of the regs and cooperate willingly in their implementation. That, in turn, requires a level of training and sophistication on the part of officers of supervised institutions that is sometimes in short supply.
• There is a further issue when there is a disparity in the qualifications of supervisor and supervisee personnel. Note that a disparity in either direction is undesirable. When the supervisory personnel is less well trained, there is a risk that the supervisees will find ways to evade implementation of the regs, and, in turn, the supervisors will feel a lack of cooperation and become unbending and petty in their supervision, even assessing penalties more strongly than necessary. On the other hand, if the supervisors are better trained, they will feel frustration at what can be perceived as the lack of cooperation on the part of the supervisees which can also lead to friction and a loss of efficiency in the system.
• The need for effective supervision as the financial system becomes more complex and the demands on it grow, on the financial inclusion and digital finance side as well, leads naturally to a search for more effective tools of supervision. These can mostly be found in the area called “extra-situ” supervision, in other words, off-site analysis of data of supervised institutions, undertaken with sophisticated statistical tools specifically designed to facilitate the needs of supervision.
• Such off-site supervision has long been in existence, however, its potential for cost savings and efficiency gains has a long way to go. At the same time, evolution in the nature and use of extra-situ supervision requires a change in skill mix in the personnel of the supervisor and also on the part of the supervised. The nature of the discourse will change; supervisees will have to integrate new questions and requirements backwards into their IT systems, and will therefore also wind up having enhanced information for their own managerial decision making. On the other side, supervisors will be able to better direct the on-site inspection teams on where to look and what to look for; they will also be able to better inform the upper echelons of supervision as to the apparent behavior of each supervised institution.

Who needs to Know?

- At the Regulators:
  - At a general level, the top echelons of the Regulator(s)
  - At the planning level, the Supervisory Design Staff of the Regulator(s)
  - At a detailed level, the Staff of the Regulator(s), especially those executing supervisory functions
- At the Supervisees:
  - Those dealing directly with the Supervisors
  - Those needed to integrate backwards into the institutions’ IT systems
  - Those charged with extracting management input from the information systems

What Needs to be Known?

- The new requirements for supervision resulting from Digital Finance. In some instances, Digital Finance generates relaxed requirements. Such is the case with KyC for small deposits. In other cases, Digital Finance has modified requirements. Such is the case with P2P transfers. In yet other cases, there may be enhanced requirements, such as where new products are now being provided, and which will require additional data provision.
The new potential provided by *extra-situ* supervision. Proper data mining on the part of supervisors in data sets of supervisees will yield more effective supervision, higher and easier compliance with the rules, better management controls and a more effective dialogue between the regulated entities and their supervisors. It will also generate much greater efficiency in the on-site supervision, as the visiting supervisors will not need to undertake a whole range of data review that can be done more effectively off-site. Rather, they can concentrate on those reviews for which physical presence has no substitute. Retraining for and refocusing of on-site visits will therefore be required.

**What Capabilities are Needed?**

- Understanding of the differences resulting from the disruption introduced by digital finance
- Understanding of the potency of off-site supervision if creatively applied
- Sufficient knowledge of statistics to design an effective off-site supervision model
- Understanding of the gains to management from providing effective data for off-site supervision to the Regulator
- Sufficient knowledge of statistics to collaborate from the supervisee’s side to the design of an effective off-site supervision model,

**Who is Creating Pertinent Capability?**

- AFI through its Peer Learning activities is effectively transferring supervisory experience among members of its network. However, off-site supervision has not been a focus of any of AFI’s working groups.
- The Financial Stability Institute touches on this topic insofar as it is concerned with increasing the capability of Regulators to do effective inspection.
- DFI is initiating work in this area.
- USAID is in the process of initiating a very small program tending to support off-site inspections in countries well short of state of the arts in this respect.

**Gaps to be Addressed**

- Development of the building blocks of an effective off-site supervision system with linked and stepwise more sophisticated levels of analysis.
- Empirical verification of current best practice in this area and comparison with the preceding building blocks.
- Identification of the skills required at different levels for effective implementation both among the Regulators and the supervised institutions.
- Scaling up of application with priority given to jurisdictions with low population and a limited staffing in the supervisory agencies.
The Payment Infrastructure

- An efficient payments infrastructure needs to have certain characteristics. The most important is that it must be certain. A payment made by one economic agent, the payer, must reach the destinee(s) economic agent(s), the payee, with complete certainty. There may be a fee involved for the service, but for any amount paid, it must be completely known and certain what amount will be received.

- A digital payments system needs to have a second characteristic. It must be able to deliver the payment in real time. While other payment systems have the luxury of delivering payments with different lags, in accord with practice, custom or technical feasibility, digital payments systems must function instantaneously. While this presents a technical challenge, it also provides absolute certainty to the transaction: the payee will see the payment the moment the payer makes it. In essence, this means reproducing the time honored payment in cash by transfer from hand to hand, except at a distance and electronically.

- The technical challenge is not small, however. Payment systems in the horse and buggy days took time because the the Wells Fargo Stage Coach could only cover so many miles per day. Later improvements, say, Letters of Credit, operated by telegram, but traditionally took several days. Even today, a bank transfer usually operates over night; to have it occur during the same day is an exception. And a bank check deposited in a recipient’s account will make the money available, in most jurisdictions, only a day or two later, even if the bank clearing operates in batches several times a day. The potential for faster processing has been available for some time, but the need for verification of the validity of the transfer instruction has been the main obstacle. “Is the signature on the check real or forged?” That is the question. The recent experience of the swindle that the Bangladesh Bank was subject to, where some $100 million were stolen from its account at the NY Fed with full, but fraudulent, SWIFT identification illustrates that the need for valid identification has not gone away. Digital payment solves this problem because the payer and the payee are in full communication as the payment occurs.

- Next, the payments system needs to be extensive and easily accessible. A payments system limited to a few privileged individuals is certainly better than nothing, but it is the inclusiveness of the system that is important. Similarly, accessibility is material. A
system that all can use in principle but which requires going to a bank office has accessibility costs. Likewise, a digital payments system that uses smart phones may be inclusive in principle as long as the cellphone system is well developed. But it will have a barrier to entry and therefore will not be truly accessible, at least not until the cost of such smart phones has fallen significantly.

- Identifying the technological means to make the digital payments system reliable, patently trustworthy, inclusive and accessible imposes specific design characteristics. Familiarity with these is at present at a medium level.

- As technology improves and, say, the block chain will become more generally applicable, the technological horizon will increasingly separate from standard practice and potential best practice will again develop new Capability Creation needs.

- Another dimension a payments system requires is to be a profitable business model. The technology may be sound, it may do all that is desired of it, but there may be no readily existing business model for an industry to grow up around. This is particularly true when economies of scale exist, such as in the case of digital finance. If and when 5 or 10 million transactions occur per year, and these are of a particular minimum size, then the industry will be profitable. But what happens until we get there, who absorbs the loss on the investment to bridge the time until break-even? One might say that the market will provide, that this is what capitalism is all about. But the truth is that many inventions never see implementation because nobody has found a business model that generates sufficient profitability over an attractive time horizon.

- The challenge of the profitable business model is greater when you have large coordination needs: telcos coordinated with financial institutions, household users coordinated with businesses, business coordinated with each other, the state as a large payer and receiver of payments involved as well. Moreover, many of these agents are large players, therefore neither a competitive model nor a monopoly will be suitable. The conceptual effort to design one or more feasible business models is major.

- The business challenge does not end with inventing a profitable business model. Once invented, it becomes necessary to also invent the incentive structure that will make it attractive for the members of multiple organizations to implement it. What remuneration structure will be needed for bank employees to find it worth their while to convince their customers to go digital? What remuneration structure will make it attractive for corresponding cashiers to “buy in”? What structure of incentives will it take to make large and small retail networks go extensively to digital payments? It is important to realize that it is not sufficient for profitability to be projected at the enterprise level, many profitable innovations never get implemented because there is no buy-in at the level of the individual worker. Resistance to change dominates and change never happens or happens so slowly that the resulting effort ends in failure. The challenge in getting digital finance adopted involves enormous change. Part of that change requires motivation. Another part requires a cognate remuneration system. The two must work in tandem.

- Knowledge of the “right” business model is low. Knowledge about how to structure a cognate incentive system at the organizational level is lower still.

**Who needs to Know?**

- Government representatives
  - Ministry of Finance Officials – overall understanding
  - Financial Regulator – detailed understanding
    - Supervisor of Payments System if Other – detailed understanding
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- Telco Regulator – detailed understanding

- Financial Service Provider Representatives
  - Banks and other depositary institutions
  - Financial Service Providers
  - Payment Processors, e.g. Mastercard and Visa; Western Union
  - ATM Network Operators
  - Corresponding Cashier Network Operators

- Telco Representatives

- Large Retailing Network Representatives (B2B operators)

What Needs to be Known?

- The Design Requirements of the Technical Infrastructure
  - SMS + USSD or a more advanced system
  - Basic cellphones or smart phones
  - Bandwidth of cellphone communication
  - Capability Requirements for Number of Clearing Members
  - Etc.

- The Design Requirements of the Market Infrastructure
  - Time Target for break even operation
  - Implications for pricing structure
    - For services to the public
    - For payments to Telcos
  - Implications for expanding services from P2P to P2B and B2B
  - Implications for remuneration incentives employees and commission based sales persons
  - Etc.

What Capabilities are Needed?

- Capability to imagine a different payments system that constitutes a quantum jump forward in inclusiveness, accessibility and reliability based real time implementation.

- Technical design capability for operations feasibility, with due attention paid to the requirements of implementability.

- Understanding of the market requirement for feasible business models and the interaction of market structures of competition with the technical parameters

- Capacity to project alternative scenarios of adoption, pricing and profitability with a view to enhance feasibility of the business models considered

- Design of cognate remuneration and incentive systems for employees of the implementing companies as well as for other economic agents that interact in the market place.
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Who is Creating Pertinent Capability?

• AFI through its Working Groups
• Bankable Frontiers through its consulting and training work
• WB/OTA/Others through expert consultants on specific request
• Selected Others through ad-hoc workshops and seminars

Gaps to be Addressed

• Alternative Business Models to hasten market implementation. The alternatives range all the way from "Modelo Peru" which has a single platform jointly owned by all participants, through arrangements where different parts of the system are proprietary and various connectors are installed to generate the required interoperability.
• Pricing models to the public, wherein the opportunity costs of consumers (and businesses) are duly considered, and where the economies of scale and market creation are given their due.
• Pricing issues between Telcos and Payments systems, where solutions for what may be a difficult bargaining situation are explored, with the purpose of avoiding lengthy delays in implementation resulting from intransigent bargainers unable to see the collective gain to be had.
• Remuneration and incentives systems, without which the benefits are not sufficiently shared with the people that are needed to make the innovation happen.

Summary

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<th>RAILS: PAYMENT INFRASTRUCTURE</th>
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Who
• Government representatives
• Financial services representatives
• Telco representatives
• Large retailing network representatives

What
• Design requirements of technical infrastructure
• Design requirements of market infrastructure

Capabilities needed:
• Capacity to imagine a different system
• Technical design and operations capability
• Market functioning/competition understanding
• Projection of pricing and profitability
• Design of cognate remuneration and incentive system
Inter-Operability

- A payments system which operates within a membership club can be useful and add to economic efficiency within the confines of the club. Correspondingly, a payments system which can clear mutual payments made within a particular bank will also have benefits but these will be confined to the operations cleared within that particular bank. If that bank has branches in more than one location and the clearing is low cost or no cost for all locations of the bank, there will be more benefits still. By the same token, as the number of economic agents with access to the same clearing system increases, so too do the benefits of the system. It follows that a national payments system, which enables any economic agent at any location within a jurisdiction to have access will provide the most benefits.

- In so far as there is more than one telco, the implication is that maximal benefits will be obtained when there is full interconnection between all telcos. Indeed, much as any person on a particular network can make a call to any other person on a different network without even being necessarily aware that the other is on a different network, so payments should be shuttled seamlessly across telecommunications networks for full advantage of digital finance to be realized.

- The same holds for financial institutions: it should not be material in what financial institution a particular person may have an account; payments should be fully clearable across financial institutions.

- Indeed, payments should be clearable across any institutions in which digital accounts may be located, whether these be financial institutions (typically banks) or any other permissible institutions (e.g subsidiaries of telcos or institutions created ad hoc to administer “digital wallets”)

- Further, it is optimal that cash-in/cash-out points be seamlessly interconnected as well. That already occurs for ATMs, but now it needs to happen also to what are known as “corresponding cashiers,” essentially any cash register connected to an internet or cellphone. However, such corresponding cashiers are traditionally connected to one or another bank and sometimes also free-standing. Hence, putting them all on the same network is not without its challenges.

- Some jurisdictions also have more than one financial clearing system. There is usually one for banks. There may be another one, formal or informal, for remittance companies. A further one will exist, perhaps by another name, for ATMs. All these need, ideally, to be linked.

- The multiplicity of clearing systems raises the question of what “aggregators” might be suitable or necessary to facilitate seamless interconnectivity.

- Finally, a critical issue: at what cost will funds be shuttled from one account to another, and across the various systems? With economies of scale being an obvious feature of a digital payments system, there will be a complex interaction of the rate of expansion of usage, total revenue for the system and the share of this revenue which will accrue to the different operators within it. Here, the split between telcos and financial institutions generates the most obvious bargaining conflicts, but there are issues of price aggregation all the way up and down the line. Finally, there is always the question of the opportunity cost to the consumer: at some point it is cheaper to get on a bicycle and ride across town to deliver the money than to use an electronic means like a bank transfer.

- Overall capacity in this area can fairly be judged as medium.
Who needs to Know?

- Regulators
  - Financial Regulators
  - Telecom Regulators
- Industry Associations
  - Bank Associations
  - Other Financial Institutions` Associations
  - Telecom Associations
- Industry Members
  - Banks
  - Other Financial Institutions
  - Telcoms
- Clearing Houses
  - Of Banks and Other Financial Institutions
  - Of ATMs
  - Of Corresponding Cashiers
  - Of Remittance Companies
- Assorted Experts and Consultant to act as advisors, facilitators and arbiters.

What Needs to be Known?

- Technical design requirements of interoperability of the telecom network. There being more than one standard on which cellphone systems operate, it is essential to understand the challenges that might be involved in attempting to interconnect them. It should be noted in this context that voice communication may well be more complicated than data transmission and may require more bandwidth. Hence, the requirements for an effective cellphone payments network may be less than for an effective voice communication network. Furthermore, while satellite cellphone communication is certainly feasible, and therefore permits accessing remote locations at moderate cost, it is still costly enough to not qualify for the standard real time transfers that the standard cellphone makes possible. Batch handling, with the consequent delays of acknowledgement of receipt, still appears necessary for ultra-remote locations.

- Technical design requirements of financial real time clearing mechanisms. At issue is real time clearing within the same financial institution at the same location, real time clearing within the same financial institution at a different location, and real time clearing between different financial institutions at different locations. It is important to note that the instrument documenting the transaction in the case of digital payments is very non-traditional: there is no paper check moving from one bank to another, through the Central Bank’s Clearing Mechanism. Rather, there is an electronic acknowledgement of the transaction having taken place. Such a distinction has technical, transactional, legal and supervisory implications and consequences. They need to be suitably attended.

- Technical design requirements of linking of decentralized cash-in/cash-out points, be they ATM machines or corresponding cashiers. The challenge here results in part from the sheer number of such service points. In Peru, for instance, a country with a
population of some 30 million, about 5000 such service points existed in 2010; in 2014 there were more than 50,000 such service points and growing. A further challenge is presented by geography: whereas radio frequencies, and therefore the internet do penetrate everywhere, cash-in/cash-out points still need to be reprovisioned every so often with cash, or, alternatively cash needs to be removed from such locations. Hence, more conventional geographic access is still required, albeit at a much lower level.

What Capabilities are Needed?

- Systems design capability is the first obvious need, both at the level of telco interconnectedness and at the level of financial interconnectedness in its different forms (banks, non-banks, ATMs, corresponding cashiers, etc.).
- The next capability is also technical: it consists of the need to program and maintain the complex systems that can handle a large payments flow.
- But none of these technical capabilities will be used if there is no decision to implement a digital payments system. To that end, leadership is indispensable. However, not any leadership; leadership that will achieve at least a workable level of interoperability.
- In turn, conducting negotiations to make interoperability a reality requires negotiating expertise and negotiating clout.
- It might also require intervention of the regulators, both financial and telcom, perhaps to facilitate convergence to a privately negotiated solution, or otherwise, to force it by regulation. Again, such capabilities are not routinely found; they may need to be fostered.

Who is Creating Pertinent Capability?

- At the technical level, it is the Systems experts, such as Ericksson who are in the forefront of creating capability
- Close behind are MC, Visa, and others who operate payments systems. No doubt Paypal and others will soon be joining them or surpassing them
- The large multinational Telcos are also present at this level, Telefonica, Claro, and others.
- Specialized Consultants such as Bankable Frontiers are also creators of specialized capabilities, especially as purveyors of input to the Regulators
- Finally, the IFC/WB provide specialized inputs on demand and the IMF also provides counsel to the Regulators
- In turn, AFI is the main diffuser of good practice, via its peer learning platforms.

Gaps to be Addressed

- On technology: development of patterns of stylized facts to facilitate the process of getting to the minimal required level of interoperability.
- On sequencing: development of a series of road maps indicating how to scale up and best achieve the goal of interoperability from any given technical starting point.
- On human implementation: learning to identify the various win-win possibilities which make “getting to yes” feasible.
ACCOUNTS

Here we want to consider: (i) accounts management, and, (ii) fraud and risk management.

Accounts Management

- Accounts are the back-bone of any payments system. If accounts are not well kept and well managed, the payments system will not work well.

- At the same time, accounts are the interface between the financial system and the public, hence how they are handled is critical for the image of the financial system, for real or fancied complaints and, by extension, for a goodly part of the consumer protection apparatus.

- While the consumer protection aspects receive attention, the protection of businesses lags far behind. Yet in the case of microenterprise, the boundary between a business account and a personal account is so fuzzy as to be undefined in practice. Yet in many legislations, consumer protection does not extend to the microenterprise business account. Accordingly, a sizable part of the consuming public is, in fact, denied consumer protection.

- Where specialized microcredit institutions are concerned and consumer protection does not apply, because the customers are held to have microcredit business accounts, the situation is especially egregious.

- Where small, medium and large businesses are concerned, the assumption is that they have countervailing power vis-à-vis the banks. In addition, it is assumed that they can pass any excess costs on to their customers. But who are their customers, if not those selfsame consumers that Consumer Protection Regs are supposed to protect? So, in practice, consumers are not protected against undesirable financial practices that they pay for indirectly. Indeed, in most jurisdictions there is no tracking of such potentially undesirable effects.

- Digital Finance provides a setting where new consumer protection rules need to be written, for the simple reason that as long as digital accounts did not exist, there was no reason to write rules to cover them. But this gives a welcome opportunity to level
the playing field and extend true comparable protection to all customers of digital transactions.

- Most account management occurs in the so-called “back office”. How effective and efficient this back office is will have an enormous impact on the cost of finance. Yet there is an enormous difference between state of the art operations of back offices and the average operation, and between that average operation and the worst operation. By the same token, there are large cost savings to be realized from improvements in back office operation.

- In an oligopolistic industry with only moderate competition, it should not be surprising that the standard cost is set by the less efficient and the more efficient make differentially higher profits. It falls to the Regulator, then to generate pressure in favor of the introduction of cost saving innovations in the back office.

- It should be further realized that interest rates in many jurisdictions, particularly for smaller loans, are constructed in a cost-plus fashion. To the cost of funds is added the average cost of operations and then a risk premium. The result will be the interest rate quote offered to the customer. It follows that back office costs directly affect the interest rate spread between what savers are offered on their deposits and what borrowers are required to pay on their loans. Consider, now, the typical spread for micro loans in the typical jurisdiction looking to generate financial inclusion. A 10% spread will be rare because it is low. A 20% spread will be much more common. But 30% or more will not be outlandish. Certainly not for credit card debt, which even in the US often comes in at 18%.

- Interest rate spreads are critical to financial inclusion. Accordingly, getting back office costs down is of material interest, both for managing accounts and managing the credit extended. All the other costs involved in the originating credit are also material for they, too, affect spreads.

- Current awareness of the importance of this issue and, therefore, current overall capacity is Low

Who needs to Know?

- Regulators – to introduce new procedures as needed
- Platform Operators – to offer consolidated or subcontracted services
- Digital Finance Operators (banks or non-banks) – to streamline digital operations and also their regular non-digital back room operations.

What Needs to be Known?

- Inventory of back-office procedures that can be streamlined in house with attendant estimated cost savings
- Inventory of back-office procedures that can be subcontracted out without loss of confidentiality with the attendant estimated cost savings
- Cost savings available for the Regulator as a result of upgrading off-site supervision and changing the mix of on-site and off-site supervision
- Adjustment to reporting system required at a Supervisee as a result of upgraded off-site supervision
- Cost savings available to the Supervisee as a result of upgraded off-site supervision and changing the mix of on-site and off-site supervision
DIGITAL FINANCE: GAPS IN TOPICS AND TOPICAL KNOWLEDGE

- Overall reduction in cost of supervisory burden as a result of more effective off-site supervision.

What Capabilities are Needed?

- Capacity to conduct benefit/cost evaluation on adoption of the potentially beneficial back-office improvements.
  - At the Regulator
  - At the Regulated Institutions
- Leadership to implement the potentially beneficial improvements
  - At the Regulator
  - At the Regulated Institutions
- Capacity to design and then implement the incentive structure at the micro level to promote the desired change (non-monetary rewards, promotion structures, pay incentives, training possibilities, etc.)

Who is Creating Pertinent Capability?

- Helix Institute
- Gateway
- BFA
- Glenbrook
- CGAP

Gaps to be Addressed

- Inventory of Typical Improvements possible in Back-Office Management and quantification of cost savings.
- Identification of obstacles for their implementation
- Creation of Peer Learning Working Group within AFI on this topic.

Summary

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Who
- Regulators – to introduce new procedures as needed
- Platform Operators – to offer consolidated or subcontracted services
- Digital Finance Operators (banks or non-banks) – to streamline digital operations and also their regular non-digital back room operations.

What
- Inventory of Back Office procedures that can be streamlined or subcontracted and the attendant cost savings
- Cost savings to Regulator and Supervisees of movement towards greater use of off-site supervision
- Reduction in Regulatory Burden as a consequence of greater use of off-site supervision

Capabilities needed:
- Capacity to calculate the potential gains: for the regulator, for the private sector institutions
- Leadership to implement the changes
- Change in the incentive structures at the micro level to induce implementation (promotion, rewards, etc.)
Fraud and Risk Management

- The fundamental asset of any payments system is reliability. For a newfangled system such as digital payments this holds even more true.
- For one which is not easy to fathom for the ordinary citizen since it involves computers whizzing and whirring to ultimately deliver its product, the magic can be captivating but it also generates a measure of cautious mistrust.
- Confidence is won hard and easily lost. Once lost, it is very hard to rebuild.
- Accordingly, in a digital finance systems guarding against risk and fraud is enormously important especially at the outset. Once the system has gained legitimacy, is in widespread use and has become humdrum, it can tolerate a slightly greater risk. But it is better to err on the side of caution and be highly risk averse.
- This involves being aware of and dealing with such diverse potential risks as business continuity of corresponding cashiers, identity theft and money laundering.

Who needs to Know?

- Operational Risk Officers
  - At Regulators/Supervisors
  - At Platform Operators
  - At Telcos
  - At Financial Institutions
- Anti-Money Laundering/Anti Terrorism Officials
  - At Regulators/Supervisors
  - At Financial Institutions

What Needs to be Known?

- Procedures for authentification of identity of persons transacting and alternatives therefor
  - Some jurisdictions have national identity cards, some do not
  - Multiple users of cellphones (within a family, for instance, or among friends) may make it necessary to have IDs for digital wallets in addition or other than the cellphone number
- Procedures for authentification of the transaction as it is being made and alternatives therefor
  - USSD seems to be the current standard and appears to have sufficient security
  - Once digital wallets become widespread and it becomes profitable to raid them, will USSCD still offer sufficient security? Is there a higher level security that could be had recourse to?
- Provisions for business continuity, including back-up and redundancy options
  - Some jurisdictions have instituted regular business continuity drills, much akin to fire drills. These exercises typically reveal easy to correct weaknesses in the system and are therefore highly recommendable.
  - Redundancy will always appear costly, but one quick calculation of a cost of a significant breakdown shows that the alternative is even costlier: such calculations should be routinely available.
- Specific anticipation for corresponding cashier operational risk
These are the capillaries of the new digital payments system. Accordingly, they merit caring for.

Analyzing corresponding cashier operational risk has to be a centrally executed function, it is beyond the capability of each corresponding cashier. Moreover, once analyzed the corresponding remedy can be applied on a scale up basis.

The central function can be located in the Supervisor or also in the respective Trade Association, or perhaps in the latter but with input from the former.

- Mechanisms for detecting money laundering by smurphing
  - Smurphing is not a cost effective way to launder money. Accordingly, it will not normally be on a scale to make a difference.
  - However, that will only be true if effective detection mechanisms are in place. For then, the deterrent effect will operate.
  - Computer routines for detecting money laundering by smurphs should be a routine component of any digital finance package.

**What Capabilities are Needed**

- High level technical understanding and a fertile imagination so as to be able to identify each type of potential risk
- Sufficient clout to ensure that the costs of redundancy and business continuity planning are met
- Relationship management skills with all the stakeholders (Regulators, Telcos, Financial Institutions, Consumers, others) to ensure that collaboration to hold down fraud and risk is well established.
- Consciousness of potential interaction with the public and with requirements for Consumer Protection and Data Privacy

**Who is Creating Pertinent Capability?**

- IT platform operators
- Some AFI members interested particularly in operational risk
- BFA
- Glenbrook
- Helix Institute
- FATF (Financial Action Task Force)

**Gaps to be Addressed**

- Low level of awareness of the critical nature of anchoring trust at this stage of development of the digital payments ecosystem
- Need for mapping of the mosaic of interactions involved
- Scaling up
Who

- Operational Risk Officers
- Anti-Money Laundering Officers
- Regulators/Supervisors, Platforms

What

- Procedures for authentication of identity and transactions
- Provision for business continuity, including back-ups and redundancy
- Anticipation of corresponding cashier risk
- Provision for detecting money laundering by smurfing

Capabilities needed:

- High level of technical understanding and fertile imagination so as to be able to identify potential risk
- Sufficient clout to ensure the costs of redundancy and continuity of business planning are met
- Relationship management skills to work with all stakeholders
- Consciousness of potential interaction with the public and with consumer protection and data privacy issues

APPLICATIONS

Here we want to consider: (i) universal acceptance, and, (ii) value added products and services.

Universal Acceptance

- The aim in digital finance is extensive usage, as extensive as possible. Indeed, the objective is to make the use of the digital wallet as ubiquitous as the use of cash, indeed even preferred to cash.
- That ambition is lofty; all involved realize that it implies creating a whole ecosystem. The difficulty is that large parts of that ecosystem need to be created essentially at the same time because they are mutually supportive.
- Digital wallets are easy to create: all it takes is for the government to make its social security payments or other systematic disbursements to digital wallet accounts. Thereby citizens have the accounts and now can, in principle, use them. But there must be uses to which these accounts can be put. Otherwise, what will happen is that people simply withdraw cash from those selfsame government deposits and then proceed to use the cash in conventional fashion.
- For digital wallets to be useful, there must be a way to use the digital wallet to pay for a purchase. But for there to be a recipient of such electronic payments a whole network of interlocking users needs to be created. In essence, a new, parallel flow of payments, this time through digital accounts needs to be constructed. Until that occurs, the digital payments circle will not have been closed.
- Digital payments can, in principle, be used to pay three kinds of economic agents: (a) government; (b) private entities; and, (c) foreign entities. We exclude the last of these, since digital finance for foreign payments has not yet come of age. That leaves government and the private sector.
- It should be easy for the government to open up all the payments it receives to being payable from a digital wallet: taxes, fees, fines, etc. There is no reason, in principle, why a government that pays school teachers’ salaries into digital wallets should not be...
equally able to receive payment for a parking ticket from a digital wallet. One is
tempted to think that a simple executive order of the country’s Chief Executive would
do the trick! Implementation is no doubt a bit more cumbersome, but such an order
combined with a peremptory deadline would go a long way.
- For the private sector to take payment requires significantly more doing. Yet the
existing network of corresponding cashiers in many jurisdictions has considerable
overlap with the major retailing networks distributing beer, soap, cooking oil, flour,
cigarettes, soft drinks and other such staples. Where some overlap is incomplete, it
should not be difficult to fill in the gaps. Then, the core consumer expenditures could
be paid for out of the digital wallet, and the recipients of these payments could pass
them on down the line through the distribution networks. With considerable reduction
in the risk of moving cash, with considerable less float, and with much accounting
simplification. These savings could, in turn, pay the retailer for the additional effort, if
any, of being more active corresponding cashiers.
- There would no doubt be some imbalance among geographic locations in the net
income and expenditure of the aggregate digital wallet, as there now is in terms of
cash flow. At present, this requires some transport of physical cash, to supply deficit
areas and to remove it from surplus areas. In a digital system, the movement of cash
would be further reduced, since some digital payments would leapfrog across regions,
as with transfers to students away from home or support for relatives by workers
away from home. To simplify the management of the remaining cash imbalances, the
use of “regional aggregators” might be useful. In some jurisdictions, these are
essentially larger corresponding cashiers who provide their “sub-cashiers” with
required liquidity when needed.

Who needs to Know?
- In the government:
  - Central Government Ministry of Finance
  - Regional Ministries of Finance
  - Municipal Administrators
  - Government Fiscal Agents at all Levels
- In the private sector:
  - Clearing platform operators
  - Large merchant houses or distributor networks, particularly of basic staples
  - Industry Associations
  - Federations of small businesses

What Needs to be Known?
- An understanding of the need to have a balance between the creation of receipts in
digital form and the possibilities for expenditures in digital form
- The mechanisms for creating additional digital accounts to receive and make payments
  - Among individuals
    - By government fiat through payments into digital accounts
    - By choice
  - Among private businesses
  - Among other private sector entities
  - Among government agencies
    - Central government
    - Regional government
Local government
Cross-cutting government agencies
The mechanisms to receive payments
  By Government at all levels
  By the Private Sector (wholesale and retail networks, individual businesses, other private sector entities, e.g. schools, hospitals, insurance companies)

What Capabilities are Needed?

- Political will in the government to enable the usage of digital wallets on the whole range of government transactions with the public
- Private sector leadership that can see the enormous benefit to private efficiency from going to digital and which will work with the large trading networks to bring this revolution about
- Providers of the detailed knowledge that makes implementation feasible
- Designers of the private incentive systems that will leverage private implementation (fees, commissions, remuneration, promotion, etc.)

Who is Creating Pertinent Capability?

- In the public sector:
  - Conditional subsidy programs
  - AFI Peer Learning
  - BTCA
  - WB Specific Assistance
  - OTA Specific Assistance
- In the private sector:
  - Selected large distributors
  - Selected operators

Gaps to be Addressed

- Recognition of low hanging fruit for much more widespread application of digital finance in government at all levels
- Scaling up of implementation of the use of payments to government from digital wallets.
- Implementation of Replicable Schemes for the use of digital wallets to receive payments for basic staples
- Implementation of Replicable Schemes for the use of digital wallets to receive payments by providers of services (schools, utilities, insurance, etc.)
- Calculation of benefit/cost ratios for private implementation to illustrate the business case for them
- Replication of private implementation to scale up.
Summary

Who
• Government: MinFin, Regional and Local Gov, Fiscal Agents
• Private: Clearing Platforms or Operators, Large Merchants
  (particularly of basic staples, soft drinks, beer)
• Industry associations
• Small Business Federations

What
• Understand the need to balance digital receipts and the digital expenditure opportunities
• Expand digital account holders
• Expand usage opportunities for digital payments
  • To Government at all levels
  • To Private for all uses (wholesale and retail networks, services)

Capabilities needed:
• Political will in the Government
• Private sector leadership
• Detailed knowledge on how to implement
  • Structure of incentives in the private sector (remuneration, promotion, etc.)

Value Added Products and Services

- The digital finance world, with its digital wallet, opens a whole new vista to consumer behavior and consumer finance, in part by incorporating a large new potential user pool to existing products and in part by creating new products.
- Consider, for example, the possibility that a merchant in a village, connected to one of the large retail networks is able to sign up half the villagers who receive conditional transfers for their monthly purchases of cooking oil. Thereby, the merchant stabilizes his demand and is able to procure the product at a lower price. He passes a part of the savings on to his customers and retains the rest as a reward for his entrepreneurship. Such an innovation can be thought of as a simple replication of standard mail reorder practices, currently applied to medicines, and therefore, it is simply the introduction of a known marketing technique to a new target public. But it can also be thought of as a new empowerment by the digital wallet mechanism to allow firm commitments of budget tranches to certain purchases, something that, when ordinary cash is used, is possible, but does not easily happen.
- Or consider a microcredit loan which has been extended with a fixed maturity date. Unfortunately, however, on that due date, there are torrential rains and the road to town is washed out. Therefore, there is no way the borrower can get to the bank office or even the corresponding cashier to make payment. Now, however, with the digital wallet, there is no problem to pay on time. Correspondingly, the borrower’s credit record does not deteriorate and he can gradually obtain a lower interest rate on his renewals.
- Or, again, where agricultural lending is concerned, repayment may be dependent on when the crop comes in. Having a date certain for maturity of the loan is not congruent with the intrinsic nature of agricultural production. Yet for the due date to be flexible a whole different loan structure, information system and interest calculation is required. With the greater interconnectedness of digital finance, such greater flexibility becomes feasible.
- Determining what new financial products, be they savings products or lending products will find favor in the market place, becomes more feasible as data on
consumer and business behavior becomes increasingly available. And here digital finance has a distinct advantage: every transaction is recorded. Therefore, data mining can come into its own.

- Certainly, what is true for the private sector can also apply to government. For instance, if government services are more easily accessible, because they are now digitalized, or even if only the payment for them can be made through the digital wallet, there may be more demand for such services and transacting with government will be speeded up. To the general improvement of efficiency in the economy, and, therewith to an increase in per capita income.

- In the area of new value added products and services, we are still in early days, and therefore what will ultimately eventuate is highly speculative. We do know that present overall capacity in this area is necessarily low. But one can expect this to significantly improve over time.

**Who needs to Know?**

- Financial Institutions
  - Banks and other depositary and lending institutions
  - Factoring Companies
  - Bonded Warehouse Companies
  - Other borrowers and lenders
- Data Processing and IT companies
  - Big Data processors
  - Psychometric Analysts
- Product Distribution Networks
  - Large distributors of basic staples
  - Producer and Consumer cooperatives
- Product Innovators

**What Needs to be Known?**

- Potential demand for old products by a new consumer audience
- Potential demand for new products by an old consumer audience
- Potential demand for new products by a new consumer audience
- Potential demand for new business products by old or new audience
- Potential demand by or for government related to new products
- Changes in the geographic location of new or existing demand

**What Capabilities are Needed?**

- Innovative talent in government and private sector to be able to intuit demand for new products
- Intimate knowledge of existing products to be able to interpolate and predict space for innovation to take place
- Willingness in government to be innovative and proactive
- Willingness in the private sector to assume risk and think outside the box
- Strategic Acumen

**Who is Creating Pertinent Capability?**
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- Consulting companies for looks beyond de horizon, e.g. BFA, McKinsey
- GSMA, CGAP, BMGF, AFI for the knowledge platform from which innovation starts

Gaps to be Addressed

- Systematic exploration of appropriate adaptation of existing products to new markets
- Systematic exploration of adaptation needs that new consumers and new market situations require.
- Creation of a context in which numerous alternatives are tried and explored so that the most relevant ones survive.

Summary

Who
- Financial institutions of all varieties
- Data Processing and IT companies
- Product Distribution Networks
- Innovators

What
- Potential demand for new consumer products
- Potential demand from new consumers
- Potential demand for new business products
- Potential new by and for government
- Geographic changes in demand

Capabilities needed:
- Innovative talent
- Knowledge to predict space for interpolation and innovation
- Willingness in government to be proactive and innovative
- Entrepreneurial leadership
- Strategic acumen

Recap of Gaps to be addressed

RULES

Enabling Legislation cum Regulation  Overall Capacity: Med

- Development of patterns of stylized facts to facilitate diagnostics and guide policy at all levels.
- Scaling up

The Structure of Competition  Overall Capacity: Low

- Development of patterns of stylized facts to facilitate diagnostics and guide policy at all levels.
- Cataloguing of typical behavior reactions of banks, telcos, banking regulators, telecom regulators in response to the various challenges they face

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- Business case for typical behavior categories
- Regulatory logic for responses on the part of regulators
- Criteria for appropriate interventions by telcom regulators and banking regulators.

RAILS

**Supervision of the Regs**  Overall Capacity: Low

- Development of the building blocks of an effective off-site supervision system with linked and stepwise more sophisticated levels of analysis.
- Empirical verification of current best practice in this area and comparison with the preceding building blocks.
- Identification of the skills required at different levels for effective implementation both among the Regulators and the supervised institutions.
- Scaling up of application with priority given to jurisdictions with low population and a limited staffing in the supervisory agencies.

**The Payment Infrastructure**  Overall Capacity: Low

- Alternative Business Models to hasten market implementation. The alternatives range all the way from “Modelo Peru” which has a single platform jointly owned by all participants, through arrangements where different parts of the system are proprietary and various connectors are installed to generate the required interoperability.
- Pricing models to the public, wherein the opportunity costs of consumers (and businesses) are duly considered, and where the economies of scale and market creation are given their due.
- Pricing issues between Telcos and Payments systems, where solutions for what may be a difficult bargaining situation are explored, with the purpose of avoiding lengthy delays in implementation resulting from intransigent bargainers unable to see the collective gain to be had.
- Remuneration and incentives systems, without which the benefits are not sufficiently shared with the people that are needed to make the innovation happen.

**Inter-Operability**  Overall Capacity: Med

- On technology; development of patterns of stylized facts to facilitate the process of getting to the minimal required level of interoperability.
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- On sequencing: development of a series of road maps indicating how to scale up and best achieve the goal of interoperability from any given technical starting point.
- On human implementation: learning to identify the various win-win possibilities which make “getting to yes” feasible.

ACCOUNTS

Accounts Management  Overall Capacity: Low

- Inventory of Typical Improvements possible in Back-Office Management and quantification of cost savings.
- Identification of obstacles for their implementation
- Creation of Peer Learning Working Group within AFI on this topic.

Fraud and Risk Management  Overall Capacity: Low

- Low level of awareness of the critical nature of anchoring trust at this stage of development of the digital payments ecosystem
- Need for mapping of the mosaic of interactions involved
- Scaling up

APPLICATIONS

Universal Acceptance  Overall Capacity: Low

- Recognition of low hanging fruit for much more widespread application of digital finance in government at all levels
- Scaling up of implementation of the use of payments to government from digital wallets.
- Implementation of Replicable Schemes for the use of digital wallets to receive payments for basic staples
- Implementation of Replicable Schemes for the use of digital wallets to receive payments by providers of services (schools, utilities, insurance, etc.)
- Calculation of benefit/cost ratios for private implementation to illustrate the business case for them

Value Added Products and Services  Overall Capacity: Low

- Systematic exploration of appropriate adaptation of existing products to new markets
- Systematic exploration of adaptation needs that new consumers and new market situations require.
- Creation of a context in which numerous alternatives are tried and explored so that the most relevant ones survive.
Chapter 2

GAPS IN TECHNIQUES

There is much to do when one wants to build a digital finance ecosystem. By the same token, there are many points of entry at which one can begin, and there are many ways of then moving forward. In what sequence one pursues the goal will affect how long it takes to get there, but also where, exactly, one winds up. For the evolution of the digital ecosystem will path dependent. The order of the inputs will affect the output. In addition, once a particular path has been trodden, it is often very difficult to retrace one’s steps and start again. Or, what is equivalent, there are likely to be very significant costs to shifting gears in midstream. So, getting it right, or at least doing it in one of the many ways in which doing it is not wrong, turns out to be very important.

What is more, decisions are typically made piecemeal rather than all at once. This means that foresight is less than perfect. Or, put another way, the horizon for decision making may be very short run. This entails the risk that with hindsight one discovers that a particular path was mistaken. Had one looked further ahead, this might have been known in advance, and costs might have been avoided.

Equally important are issues resulting from decentralization. When many decision makers are involved and each has independent decision making power, coordination problems will result. Yet when only a single decision maker exists such as, say a Ministry of Finance, the delays in actually making decisions may have costs that exceed those that result from the coordination errors attendant upon decentralization.

It becomes important, therefore, to have a sense of where there is “block independence”, in other words, where it is safe for individual decision makers to decide without consultation, because the impact of such a decision on others is irrelevant or negligibly small, or because all the possible decisions in this set will be equally useful.

In this chapter, five techniques that may be potentially useful at different stages of the design of a digital ecosystem will be looked at:

- Progress diagnostics of financial inclusion
- Low Hanging Fruit Analysis
- Threshold analysis
- Complementarities analysis
- Economies of scale analysis

The purpose here will not be to fully construct each of these techniques; that goes far beyond what can be accomplished within the confines of this chapter. Rather, the purpose here will be to outline the techniques sufficiently so that the reader can understand what the technique might accomplish. A separate decision is then required as to whether the benefits of having each technique justifies the costs of developing it.
Some general conclusions on this benefit/cost issue will be suggested at the end of this Report.

**Progress diagnostics of financial inclusion**

*Do we have a technique for mapping where we are on the various paths that can lead to a viable digital finance ecosystem, and then identify which one (or ones) is a candidate for pursuing in the particular case at hand?*

- We certainly have a mapping of what is needed in broad terms to construct a viable ecosystem for digital finance from the *Level One Project* of the Bill & Melinda Gates Foundation (BMGF). This framework could be taken as the equivalent for the purpose of the case at hand to what Rodrik, Hausmann and Velasco recommend for general development policy and which they call *Growth Diagnostics*. Accordingly, we might in this case, speak of *Digital Finance Diagnostics*.

- That framework identifies four stages in the construction of a digital finance system:
  1. Rules: Establishment of the Legal and Regulatory Framework
  2. Rails: Establishment of Infrastructure for Connectivity & Interoperability
  3. Accounts: Enable account opening and manage accounts for consumers, agents, merchants, and payees
  4. Apps: Enable market ecosystem innovation that delivers affordable, effective pro-poor services and products

- It also assumes that you need to start from the top and work your way down. But reality often gets ahead of the theory or of implementation desiderata. For instance, the framework calls for Rules to come before any other Implementation. But in a number of countries, Implementation has occurred before the Rules were adopted and these latter have had to contend with an existing reality that was different from the theoretically desirable. The question then arises as to how you bring this (distorted?) reality into the fold of sound regulation.

- The *Growth Diagnostics* also asks questions as to what the drivers and constraints are. What is motivating the desire for installing digital finance? And what stands in the way, what are the obstacles? Growth Diagnostics also queries what the next in line constraint or obstacle will be, and the one after that, in order to develop a dynamic strategy. One can certainly imagine the appropriate *simile* for the *Level One Framework*.

- On occasion, one requires an overall measure of progress towards a digital finance ecosystem. One could then potentially go down the list of general items shown on the Level One Framework “ladder” and tick off where one is in making progress towards one’s goal. But what if one were to find that one is at a 70% level in Rules, 30% in Rails, 50% in Accounts and 20% in Apps. What, if anything, do these scores really indicate? Indeed, how are they comparable? Maybe the remaining 30% in Rules are exactly the hard part and that is going to make all the difference between ultimate success and a messy situation that will keep one bogged down for years. On the other hand, it could be that 20% in Apps is not terribly material, after all, whether one set of Apps are
implemented or another may not really affect the outcome much; besides, Apps are being invented all the time!

- So score keeping on the Level One Framework does not give us much of an indicator.
- On the other hand, while this framework allows us to organize the construction of a digital finance ecosystem and list broadly the elements that are essential to the task, it does not speak to how to select the specifics of the path when more than one option is available. The check list it provides is still sufficiently ambiguous to leave much room for choice...and error!
- The preceding report “Gaps In Topics And Topical Knowledge” listed a number of topics and questions for which it would be helpful to have answers when we are looking for “optimal” implementation.

Here are some cases in point:

- The telco market is oligopolistic. We observe different behaviors in different markets and often also different behaviors on the part of the same companies in different markets. This leads to hard-to-predict pricing strategies. Yet what price a second of airtime will cost impacts the pricing downstream to the consumer. Without a guess on the price of airtime, we are hard put to forecast many of the financial variables impinging on the digital finance business model.
- How the various actors in the digital ecosystem get remunerated will strongly affect their behavior. This will be true for profits to the various businesses involved, it will be true for wages paid to the workers that will actually implement the system and “sell” it to the users, and it will be true for the consumers that need to find using digital finance convenient, cheap, and attractive.
- Digital Finance will live alongside older forms of doing finance. The relative costs will be heavily impacted by the efficiency of back-office operations. Currently there is a wide range of costs in the back office; accordingly some operations will be able to compete well with digital finance, others will compete poorly. Some may actually turn out to be complementary. Much remains to be ascertained in this area.
- More examples can be given, but the point is sufficiently made with these.
- It may be clear already from the examples cited above, that there is more than one pattern that may be optimal. But this is especially true if the initial conditions are factored in. Optimal paths are therefore starting point dependent. Since no country starts from a clean slate, specific initial conditions will need to be fully taken into account. However the extent to which such initial conditions are “binding” will also be different in different jurisdictions. In some cases, it will be possible to modify some of the initial conditions; in others that will not be possible at all; in others, still, some modification will be possible, while some restrictions will continue to remain.
- The plethora of possibilities cries out for greater structure, a useful way to find guidance in order to make informed choices. For this purpose a collection of “Stylized Patterns” would be very useful. Each Stylized Pattern would be made up of Stylized Facts constituting a sequence capable of being effectively implemented. Stylized Patterns would be mostly derived from actual practice, but perhaps also derived from
practice that should have occurred but unfortunately did not. Any particular case could then be compared to the different stylized patterns and inspiration could be drawn from the patterns that most closely approximate the case at hand.

- A system of Progress Diagnostic, then, can help us in a variety of ways to be more effective in pursuing our purpose. Designing one will take some skill, but should certainly not be impossible.

**Low Hanging Fruit Analysis**

*Do we have a way to systematically identify the most promising ways to move forward from a particular point in a particular context; do we have a way of making sure that by moving forward to “obvious” targets, we do not wind up in a dead end as a result of not looking three or four steps ahead?*

- For a potential action to qualify as Low Hanging Fruit, three elements need to come together: (i) technical feasibility + (ii) willingness to implement + (iii) a team to carry out the implementation. It is the human endeavor that matters here.

- A good example of LHF consists of the following stylized facts:
  - Government pays transfer payments into digital accounts at the State Bank, G2P (government to person is in place). A digital payments system already exists but it is only used for P2P (person to person) transfers.
  - But it could be the start of much more.
  - Payments to the state, P2G, B2G, from both private persons and businesses qualifies as being Low Hanging Fruit

- Wherever there is a strong business case, there may be LHF. See clusters below for potential opportunities.

- Spotting LHF is fundamentally an art, and, as painting or sculpting, it is acquired through sometimes painful experience. Eventually, the experience becomes so natural it is called “thinslicing” (see Malcolm Gladwell, *Blink*, for some marvelous examples). It follows that, spotting LHF can be learned, and some techniques can usefully supportive of that learning. Stylized Facts and Stylized Patterns are one. Clusters are another.

- We then need to examine to what extent identifying LHF can be decentralized. Might some “locally” low hanging fruit be “globally” high hanging? It is hard to imagine a case, especially if some care is taken to explore what the interactions with other parts of the system might be.

- We conclude then, that here we have a technique that can indeed be helpful, that can have a structure and a method of application and where the locus of application is sufficiently circumscribed as to be applicable on a decentralized basis, which therefore offers the best chances of being usefully implemented.

**Threshold analysis**
Do we have a way to identify situations which are almost ripe for progress, and, where, as a consequence, a small push will go a long way?

- We can think of this as a benefit/cost analysis question. We want to find situations where the cost in terms of implementation effort is low and the benefit in terms of progress made in digitalization and/or financial inclusion is high.
- Is there a way to “guesstimate” the B/C ratio with a substantial chance of being right? If so, we will certainly save time and effort (and, therefore, cost) compared to what it would take to go through a formal benefit/cost analysis.
- In technical terms, we are looking to guesstimate strong cases of intramarginality; if we were to compute a careful B/C analysis for the guesstimated choices, we would find that these choices strongly dominate others.
- Along the way, we may sacrifice working methodically down the marginal product curve. Indeed, we will not be plodding down any curve; we will be jumping to the conclusion that a particular group of initiatives are more worth doing than any other.
- If we are right enough of the time, this is an efficient way to proceed. So, how do we raise the probability of being right?
- The answer, once again, is found in a combination of stylized facts and thinslicing: experienced operators will “know” or “feel” where the high payoffs to effort are. So the answer is to find the experienced operators, and the next corollary is to train them.
- Then, again, the question arises regarding who is to undertake this analysis. And here, fortunately, we can find some solid grounding: it all depends on what is written in the country’s National Financial Inclusion Strategy. That assumes, indeed, that the country at hand has such a strategy. Fortunately, an increasing number do have such a strategy, and this document will normally assign responsibility for certain actions to particular organizations. By extension, therefore, it also confers authority for making certain decisions. While having a National Financial Inclusion Strategy does not guarantee the absence of turf battles between different parts of the public bureaucracy, it does at least provide a basis for settling a good fraction of them.
- We can conclude, then, that Threshold Analysis does provide a useful tool to jump quickly to conclusions and then proceed to implement at low cost. Especially when decisions are minor or overwhelmingly clear, the case for applying this method is strong.

**Complementarities analysis**

Some actions or policies need to be adopted together, as a package, because they are mutually reinforcing; others are natural sequences one for another; others are more free standing; do we have a methodology for identifying such packages?
The challenge is to identify a cluster: activities that have strong externalities towards each other and therefore are mutually reinforcing. In some cases, you cannot do one effectively or cheaply without also doing the other.

At some broad level, the whole digital ecosystem is a huge cluster and all its elements are mutually reinforcing. Yes. But to be operationally useful, we need to limit ourselves to “close complementarity,” situations with strong externalities towards each other.

Some concrete examples will serve to illustrate:

- Government transfer payments into digital wallets of persons, and then back from persons’ digital wallets into government account in payment of taxes, fees, traffic tickets or what-have-you constitutes a legitimate cluster.
- If the preceding is extended to Social Security contributions and benefits, the cluster becomes larger but no less effective.
- Could private pension plans also be part of this government hub? The difficulty is that the folks receiving pensions are not the same as those that are currently paying in so as to receive pensions later. Thus there is no natural two way traffic. Joining the government hub becomes a way to generate benefits from accretion of scale. The same benefit would apply if private pension operators joined any other pre-existing cluster.
- Large distributor networks between their hubs and their periphery constitute a natural cluster: having payments inside a distribution system that can be executed digitally substantially reduces the risk of moving cash, therefore it is cost saving. That saving will be distributed between buyers and seller(s) in accordance with the terms of competition in the market place. Adding in the consuming public rounds out the cluster and brings in a source of funds which will flow through from the public to the retail establishment and to the hub of the distribution system.
- It is tempting to think of service providers constituting another cluster, composed of the providers of water, gas, electricity, education, health, and insurance. Yet, while these activities all have a strong business case for adopting systems of digital payments, these payments are all one way, from the public to the service providers. They are, so to speak, half clusters, and they will therefore have complementarity with a pre-existing cluster but not autonomous complementarity.

From an administrative point of view, the complementary activities may well fall into the province of different ministries, municipalities or different Regulators. Bridging such different jurisdictions may well constitute a challenge and may complicate taking advantage of the complementarities. Or, to the contrary, the existence of such complementarities may cause jurisdictions that do not normally collaborate to make common cause and find that there are substantial gains to be had by understanding the win-win that digital finance can provide.

Identifying possible clusters and complementarities is much simpler than identifying low hanging fruit. The clusters are fewer and the similarities across economies are much greater in this area; therefore, the stylized facts will pick up most of the opportunities worth exploiting. Those that are left are likely to then be found by market operators.
It is possible to conclude, then, that here we have a technique that may be useful in more than one situation; that may actually promote collaboration across government departments and jurisdictions as well as crossing between government and private sector. As a collaborating instrument to accelerate the convergence towards a full digital ecosystem it looks likely to have a role to play.

**Economies of scale analysis**

*Do we have at least rough estimates of the economies of scale in various parts of the digital finance ecosystem in order to guide decisions, e.g. interoperability, interconnectivity, back office processing?*

- Here we have a purely empirical challenge. Certainly, in principle, any cost curve can be modelled and then the scale economies can be simulated. But that simulation will only be as good as the assumptions on which it is based. And, while better than nothing, it is not sufficiently helpful.
- Economies of scale need to be obtained from international cross-section data and then verified in time series in individual countries. The international cross-section data are likely to be publicly available; the individual country time series are likely to be proprietary.
- It follows that one should start with the cross-section data. Later on, explore whether the regulators have sufficient clout to obtain the time series data.
- Obtaining country data points on volume of output, prices, costs (as far as known) and other related relevant figures (to be determined) can constitute a separable and highly useful project, executable with AFI collaboration. Indeed, AFI’s working group on data or on digital finance would be a very appropriate locus for such a project, especially if an ad-hoc sub-working group was created, with its own, separate budget, so it could fund data gathering and data analysis personnel. As an ever larger amount of data points was accumulated, the relevant cost curves would become more certain and more reliable for projections outside the range. One would only have to take care that parametric changes in technology were duly noted, so as not to confuse shifts in curves with movements along them.
- Economies of scale analysis might therefore be thought of as very humdrum, unexciting. Nothing further from the truth! Knowing the gains from scale stand at the center of all economic analysis in digital finance, for this branch of industry is characterized by having highish fixed costs and very low marginal costs. The consequences are felt on the organization of different parts of this industry, on pricing, on the distribution of gains in different slices of the industry and, ultimately, on the prices to the public. Getting a fix on the economies of scale involved, therefore, is of tremendous importance to getting the public policy for this industry right.
Where to locate implementation (or, who should do it)?

- The first criterion is how global is the task? One would think that Digital Finance Diagnostics needs to operate at the global level, but that is not necessarily so. For sure, there is a global level at which the Diagnostics need to operate. But there are also more specific levels at which the process could be Subglobal. The other methodologies considered are likely to do very well at more local levels. Clusters, for example are almost inevitable subglobal.
- The second criterion asks how centralized does the task have to be? The answer again is that Digital Finance Diagnostics probably need to be centralized, at least insofar as it is a macro analysis. But once we depart from the Diagnostics, all the other techniques appear to be applicable at a range of different levels of aggregation and with a very varied style or level of control.
- A third criterion is whether we are dealing with a pilot project or one to be definitely implanted. If the former, one would want to locate it where the results can be best evaluated. If we are not dealing with a pilot, then the preceding two criteria should apply.
- Finally, there is the crucial question of what the National Financial Inclusion Strategy has to say on the matter. It may dominate all the other criteria. By contrast the strategy may be very agnostic on where to optimally locate certain functions.
- In sum, the location should vary according to the situation and according to what one hopes to accomplish. One size does certainly not fit all in this case!

RECAP OF TECHNIQUES TO BE EXPLORED

a. Progress diagnostics of financial inclusion

Absolutely useful. We need to know where we are, what progress we are making and in which direction it makes sense to move. But will need fleshing out.

b. Low Hanging Fruit Analysis

Nothing like having a good way to spot targets of opportunity. Great way to move forward quickly. And you never know, one set of low hanging fruit may cause another! What is more, the technique for spotting the low hanging fruit is really easy to implement.

c. Threshold analysis

When it is almost there, the temptation to push it over the edge is more than justified. We just need to know where the thresholds are. Not too different a method from spotting low hanging fruit. Very doable.

d. Complementarities analysis
Clusters, interdependencies, closely connected features, mutual externalities, whatever you want to call it, some things need to be done together, others are done better together. It makes good sense to know what they are, especially if that is not too difficult, at least for the major ones.

e. Economics of scale analysis

Here we need hard empirical facts, not guesses. Because what we do depends on it. Declining costs are core to digital finance. How steep the decline is makes a lot of difference. Investing in finding out will pay off handsomely. Especially since the data will come with much international collaboration as a free-be.
Chapter 3

GAPS IN THE SKILLS OF INFLUENCE

Collaboration is essential to getting things done. Yet rarely are we taught explicitly how to collaborate effectively. The assumption is that we learn how to get along with each other naturally, as part of the human socialization process. Or, perhaps, it is in kindergarten and primary school that we are supposed to pick up these skills. Yet even at this level, there is increasing evidence that implicit socialization leaves something to be desired. Otherwise there would not be so much current discussion about bullying.

When other skills are concerned, it is only natural that we provide explicit training. Nobody expects a mining engineer to pick up his skills by osmosis. But when that mining engineer needs to negotiate with a mayor of a small town for the mayor’s constituents to stop blocking the road to the mine, we expect that engineer to know how to persuade the mayor! Hardly reasonable!

Collaboration with others is either assumed to exist or to happen naturally “because it is in everybody’s interest”. But in a wide range of situations that is simply not so: a shared interest usually needs to be identified, sometimes created. Otherwise, with no recognized shared interest, there is no collaboration, and things just do not move....even if all involved would be better off if they did. What is more, in many cases, while the totality of the participants may gain (a positive sum situation), it is common for some to gain and others to lose. The losers will then try to block the “deal” unless they get compensated. It will then become necessary to reach agreement on the size of the compensation and how that will be provided. Reaching such an agreement can come about in a number of ways, from imposition by force to implementation by mutual consent. Which way it happens is fundamentally a matter of evolution of civilization: remember that early on the stronger imposed his will on the weaker, but over time we have evolved rules that tend to produce ever fairer outcomes. But these are all learned processes and by the same token the can and need to be taught.

This chapter starts from the empirical assertion that the persons active in the financial world, and in digital finance as well, have little occasion to become explicitly trained in the art of working together. Work together they must, and they do, but imperfectly and much less well than they might....because in their training they have little occasion to become exposed to the art of collaborating. It follows that when a whole new ecosystem is to be created, digital finance, it will be much easier to accomplish this task if those that are charged with creating and later operating this ecosystem became equipped with the tools that will help them work effectively together.

There are, of course, some instances of explicit training in human relations skills. The Fletcher Leadership Program in Financial Inclusion, at Tufts University, is the main outlier in this
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respect. A very significant part of its residency program emphasizes Skills of the Influence and its curriculum overall looks to incorporate these skills throughout. They, therefore, a major exception. The Digital Frontiers Institute also provides an opportunity for learning how to work together, as does MicroSave and others in their training programs. But, there is a major difference between learning how to work together on a particular task and learning general skills of effective collaboration. It is this second kind of skills that are almost never taught as part of substantive professional training. Yet they are essential in getting most things done. The remainder of this chapter will address first where collaboration is necessary, indeed where better collaboration will lead to a more satisfactory outcome. It will then explore tools that might be helpful to individuals as they try to collaborate more effectively in their organizations. Finally, it will address issues relating to collaboration between organizations.

Who needs to get along? -- Where collaboration is necessary.

(a) Among people in the same organization or grouping

Obviously, people within the same organization need to collaborate. That means:

a. Regulators’ staffs
b. Financial institutions’ staffs
c. Telco’s staffs

But this tells only part of the story. Within each organization there are departments and within each department there are working groups, so harmony within these smaller groupings is essential. Harmony also needs to exist between the constituent groups of the same organization, yet there will inevitably be some degree of competition between them. Such rivalries need to be arbitrated or negotiated and for this the skills of collaboration are essential. It is not enough for this purpose to have a clearly defined mission statement or clearly defined responsibilities. There will always be some ambiguity left, some difference in interpretation and perhaps even some deliberate desire to find differences, in order to expand turf, or to “do things better”. Yet the organization will only function as well as the internal friction will let it.

(b) Among people within Closely Related Organizations

a. In Different Government Agencies

It is a fact of life that government agencies often feud with each other. Yet to create an effective ecosystem for digital finance, we would like to minimize such strife. Collaboration should dominate over competition; rather, the various agencies should compete in a friendly fashion regarding who can advance the cause faster or better. But even then, there might be different interpretations of how to do that, and certainly how to value the tradeoffs. For instance, the telcom regulator may think that ceding a bit on price is desirable since it reduces the pushback that the regulator gets from the industry. The banking regulator may
think that the particular price in question will kill off demand, or at least make the banking industry uninterested in moving forward with the digital option.

Multiple government agencies will almost always be involved in creating a digital finance ecosystem; understanding the potential rivalries and coalitions in each particular instance is essential; hence learned capabilities to improve collaboration will be very important.

b. In Industry Associations (Bankers’ Associations, Telco Associations, others)

Working within and between private sector organizations presents special challenges. While associations represent the collective interest of the industry, the competitive pressures within the industry are ever-present and the concern that privileged information affecting competitive positions may be disclosed typically hampers collaboration within such associations. When different sizes of enterprises coexist in an association, collaboration becomes even more complicated because costs and benefits are then very unlikely to be shared equally.

The relationship between banks and other financial institutions are of particular interest in the case of a digital ecosystem. All participants in the ecosystem stand to gain, especially if a single interconnected platform can be developed. But the benefits and costs are not shared equally. Then, finding sustainable distributions of net gains is tremendously important and will affect the ultimate outcome. This task is one that is not simple either at the technical level (quantifying the net benefits) nor at the negotiating level (getting to where the shared interest predominates while all participants agree that the outcome is sufficiently fair from their respective perspectives).

c. Consumer organizations

It is not uncommon for there to be more than one consumer organization in a particular jurisdiction. Moreover, they are likely to compete for members, to have partially overlapping membership, and to specialize in what they lobby for. On the financial side, some may specialize in organizing class action suits where such are allowed by the legislation, others may look for anti-trust action, others may specialize in driving down bank fees, improving bank services, etc.

Effectiveness in these organizations depends in part on the number of members and also in part on log-rolling with others. The latter falls clearly into the category of skills of collaboration.

(c) Among people not within Closely Related Organizations

a. Hierarchically Related

The Regulators and the Regulated, both on the Financial and on the Telecommunications side, naturally need to interact and, hopefully, in a
constructive manner. On each side, one needs to understand the position, needs and restrictions of the other. But at times there will be clashes, and it is not obvious that the Regulator will always get the better of it.

Indeed, faced with an outright unwillingness of the regulated to comply, or more likely with outright foot-dragging, the Regulator may turn out to be almost powerless. After all, you cannot shut down a bank because they take too long to produce some statistics you are requiring! You can fine, but the fine can be appealed; you can turn the appeal down; the regulated party can then go to Court. Whether during appeal the fine stands depends on the particular legal regime, in some cases it does, in others it does not. In some cases, the fine must be paid before appeal, in others it can be put in trust; it may or may not accrue interest, in some cases at punitive rates, in others at the money market rate.

The point to remember is that even in cases of a hierarchical structure, there is still scope and need for collaboration and for the skills that this requires.

b. Competitors and Cooperators

Telcos and bankers are on opposite sides of the market where digital financial services are concerned. Many financial institutions have to buy indispensable services from very few telcos. On the other hand, if the digital finance sector does not grow, telcos will have no increase in sales. Hence there is a manifest shared interest. Moreover, in an industry dominated by economies of scale, the shared interest is stronger still. Yet the price which the financial industry pays the telcos for access to their network is indeterminate over a range, or, more precisely, can be negotiated within a certain range, without major disruption to the final demand. Hence it will be the negotiation that will determine the share of the joint benefit that each industry derives. Payoff, then, to having learned the requisite skills for collaboration.

c. Asymmetrically Related

*Big Sellers vs small consumers, or perhaps, Few Sellers vs many consumers* is how the market for a range of services can be characterized. The typical situation for emerging and developing markets is one of few financial institutions (banks, non-bank depositary institutions, finance companies) and even fewer insurance companies facing on the other side of the market a large number of consumers. Utility companies, including telcos, have the same market structure. This requires a very special skill mix to manage potential backlash, for consumers have countervailing power. In part, this is the result of Consumer Protection legislation which is fashioned explicitly to increase consumer bargaining power and which often creates a Competition Authority, Anti-Trust Authority, or equivalent agency, specifically charged with the task of protecting the consumer.

In this context, consumer organizations are likely to become very vocal if they perceive that consumer interests are not being protected. However, there is a whole grid of possible positions in the consumer protection space and while
some outcomes are clearly undesirable from all points of view, there is certainly a wide range of stable outcomes that are possible. Where in the decision space the final outcome lands, depends again on the capabilities of the negotiators on the various sides, for there is more than one feasible outcome.

d. Complex Multiple Relationships.

These happen along a variety of dimensions:

- Many regulators in a single country have some level of jurisdiction over digital services and financial inclusion. Ministries of Finance may be involved as well.
- Regulators have a role in promoting cross-sectoral private partnerships and creating enabling environments for innovations among diverse actors.
- Members along the digital valued chain (MNOs, banks, MFIs, NBFI s, agent network, payment platforms, social networks, etc.)

It follows that there is opportunity and need for the skills of collaboration to be applied in this context.

**What Tools Can Help You Get Along? Or Help with Individual Interaction.**

There are people with Innate Talent for interacting well with others. We call them “simpatico” or “likeable”. These people seem to move through life facilitating interactions wherever they go, smoothing differences and pacifying egos. Most humans, however, have a different personality mix and do not come naturally by such outstanding collaboration talents. They need to consciously incorporate what the Innate Talent folks do unconsciously. Here is a short menu of pickings:

(a) Thinslicing.

The associated name is Malcolm Gladwell and the book is Blink. At issue is how to harness the intuition underlying first impressions for good purposes.

Often there is no time for careful evaluation. We meet a new person and we have to interact right away. We do not even have time to enquire about shared friends or to check with third parties about whether our new interlocutor is good, bad, or indifferent. We are thrown in with him and have to deal. Thinslicing saves us: we form an instantaneous impression and go with it! Naturally, it colors all the interactions we will have with that person. And properly so, until we can add further information...
Evidently, first impressions are sometimes wrong, although more often they are right. The question is how to use Thinslicing to best effect, when to trust what it tells us and when not.

(b) Carl Jung and Myers-Briggs

Carl Jung developed a typology, Isabel Myers and Katherine Briggs converted that into an explicitly useful indicator, the MBTI. By grouping people into 16 categories according to 4 dimensions, it becomes possible to distinguish whether people are alike or different and in what ways they are. It also becomes possible to match people for greater or lesser ease in working together as a team. While not foolproof, it does provide an instrument for anticipating the quality of interaction and for forming teams that will work well together.

(c) Negotiating Strategies I – “Getting to Yes”

In the late 1980s Roger Fisher and William Uri wrote their classic book, coming out of the Harvard Negotiations Project. The fundamental recommendations are the following:

- Separate the people from the problem (Avoid getting your ego entangled. It is not about your worth!)
- Focus on interests, not positions (What is it you are trying to gain, what the other side? There needs to be advantages to both for a sustainable deal.)
- Invent options for mutual gain (A win-win will always be better!)
- Insist on using objective criteria (Here is where you appeal to precedent)
- Know your BATNA - Best Alternative To Negotiated Agreement (Always good to be clear about one’s other options, particularly when they are bad!)

Folded into each chapter are practical recommendations that are directly applicable, as well as illustrative examples.

There were later some sequels, Getting Past No by William Uri in 1991 and Beyond Reason: Using Emotions as You Negotiate by Roger Fisher and Daniel Shapiro in 2006.

(d) Negotiating Strategies II – Game Theory

The movie A Beautiful Mind tells the story of Nobel Prizewinner Nash, one of the great contributors to Game Theory, which was originated by von Neumann and Morgenstern to formalize the development of multistage strategies. “If I do A, and you do B, then I should really never have done A, because your response will have annulled it. But then you will never do B, because I will never have done A.....”

For practical application in situations of normal, that is, complex human interactions, game theory offers no specifics. It does tell us that we need to take into account how our partners in “the game” will respond; ignoring the second round effects will be at our peril.

(e) Media management:
The media have their own approach to covering a story. They want to be persuaded that (i) the story is newsworthy and (ii) pursuing it from a particular angle presents it more correctly and/or more in the public interest. Moreover, they want sound bites, archetypes, metaphors, stories they can relate to, as well as key data points. Despite studies that show that memory retention of power point information is low (4 slides in 20), power point persists as the communication crutch of choice. But a press release or a summary of main points may do much better, especially for the less specialized financial or business reporter.

(f) Public Administration Logic

Interacting in the public sector or with the public sector has peculiarities that do not obtain in the private sector, having to do with risk aversion, the structure of remuneration, the slowness in decision making and the potentials of strong shifts in the valuation (utility) function whenever there is a political change at top. Some of these features are creeping slowly into the private sector, when very large corporate units are involved.

a. Structure of Benefits and Cost: High Risk Aversion

It is characteristic that in the public sector the reward for innovation and risk taking is small, however, the penalty for having been wrong is great. The result is immobilism: it pays not to change anything, and if you have to change something, best to change it as little as possible. When something works, don’t change it, even if it could work much better. Promotions are rarely handed out to innovators. Such folks mostly come into the public administration as political appointees. And once they are gone, it is not obvious that the innovation they espoused will survive. When dealing with public servants, it is important to be very aware of the mindset and limitations within which they operate. When proposing change, be sure to propose something that has little risk and what risk it has should devolve onto the private sector. That kind of innovation the public servant likes: “if it works, I get the credit; if it fails, you shoulder the cost!” Of course there are exceptions to every rule and some political appointees infect their organizations with a willingness to change and to try something new. But this is more the exception than the rule.

b. Specific Situations Substantially Affecting the Public Sector

1. Conflict of interest:

Every civil servant has to beware of being guilty of conflict of interest. Easy to be accused of it; hard to prove innocence.

Investigations can drag on forever and reputations ruined, only to find at the end that charges are dismissed! The administrative logic therefore says: stay away from anything that can be remotely construed as conflict of interest. And bear in mind that there is no such thing as congruence of interest!
When searching for points of collaboration, best to structure proposals bearing in mind the possible malicious interpretations.

II. Bribery & Corruption

Getting tarred with a corruption brush is easy, getting out of it is very hard. That sometimes leads to going by the book when it would be much more rational to do something else, yet that more rational alternative may appear to have been induced by inappropriate means. Bear in mind that investigations always assume the worst and innocence is hard to prove.

Techniques to Facilitate Institutional Collaboration

(a) Stylized Facts and the Use of Precedents

In negotiations, the appeal to precedent is the equivalent in other contexts of appealing to authority: it carries weight. But precedents actually have to fit the facts; otherwise arguing from a precedent will be spurious! Therefore the role of stylized facts: simplified versions of actual occurrences, which summarize typical situations.

Consider the comparison with buying an off-the-rack suit when suits only come in even sizes. Then, if you are a size 39, a size 40 suit will fit, but a bit loosely, and a size 38 will be too snug. If you are a size 39.5, the size 40 suit will fit a lot better, but still not perfectly. Of course, if you are a size 36, that size 40 will not fit you at all. So it is with stylized facts and precedents, they are unlikely to fit perfectly, but you may be able to find a set that comes close enough.

(b) Stylized facts come with bargaining spaces, some of which represent actual outcomes, namely the precedents.

But there will be additional outcomes that could have been feasible and that merit consideration. Such analysis is particularly helpful when considering typical deal breakers or deal sealers.

(c) The number of issues being negotiated about need not be fixed.

Expanding the number of issues may facilitate agreement as the possible number of offsets and compensations increase. Or reducing the issues may reduce complexity and make the issues easier to understand and evaluate. Zoom in and out, until you find the right focus for getting to yes.

(d) Consider the internal incentive issues within the organizations negotiating.

What will lead to the negotiators getting ahead within their own organization?
Just as the number of issues to be negotiated can be variable, so can the number of organizations involved in the negotiation.

The optimal number to get to yes may vary considerably. In some situations, it may be desirable to start small and build up agreements by accretion. In other situations, it may be best to have a large number there from the start, in order to “drown out” the likely dissenters. It could also be that the best way to proceed is to have a core team with what might be regarded as “satellites” who are willing to go along with that the core agrees on.

Multi-Stakeholder Analysis and Stakeholder Road-mapping

Regulators and suppliers in the financial inclusion ecosystem are often dealing with multiple categories of individual stakeholders and institutional stakeholders. Telcos are entering into joint ventures with banks and fintech companies and all are dealing with multiple regulators, standard setting bodies and supervisory bodies. Keeping track of the various interests of the multiple stakeholders, along with their organizational cultures becomes essential if a multidimensional negotiation is to be kept on track and lead to a constructive outcome. For this purpose, an explicit stakeholder road-mapping may prove helpful.

RECAP

In the area of Skills of Influence there are mostly gaps. The assumption is that individuals and organizations will wish to collaborate “because it is in their interest”. But this assumption is often not borne out in practice. Moreover, the further assumption that individuals are good at collaborating is far from empirically valid. Some do have Innate Talent in this regard, but most do not. However, this is a skill that can be learned. But for it to be acquired, two things are necessary: (a) there must be an easily accessible locus where it can be acquired, and, (b) there must be a conviction that it needs to be acquired and an incentive to making the effort to do so.
Chapter 4

Gaps in Motivators

The purpose of this chapter is to identify who motivates the advances in Digital Finance and what gaps there might be in the motivational landscape. This fourth report, therefore, attempts to combine two kinds of analysis: (a) a mapping of the principal organizations or clusters of organizations actively concerned at the international level with Digital Finance and/or its corollary Financial Inclusion; and, (b) the effect of the interaction between the relevant domestic Regulators and the international actors on the proactivity of the Regulators in promoting Digital Finance and Financial Inclusion.

It is important to underline that this Report reflects a particular range of experience derived from the author’s four years of tenure as the Head of Peru’s financial regulator, the Superintendencia de Banca, Seguros y AFPs. During these years, the author also served for one year as Member of the Steering Committee of AFI, the Alliance for Financial Inclusion, followed by a second year as Deputy Chair of AFI’s Steering Committee and then a year and a half as Chairman of AFI’s Steering Committee; he also served concurrently for two years as Board Member of the Association of Bank Supervisors of the Americas, ASBA, followed by another two years as President of ASBA; also concurrently for four years as Member the Executive Committee of IAIS, the International Association of Insurance Supervisors; also concurrently as Member of the Board and later Vice President of ASSAL, the Association of Insurance Supervisors of Latin America; attendee at regional and international meetings of IOPS, the International Organisation of Pension Supervisors (IOPS) and at regional and international meetings of the Financial Action Task Force on Money Laundering (FATF); and participant in the regional meetings of the Basel Consultative Group. Despite this rather extensive exposure to various international bodies, it is unavoidable that his particular experience colors the author’s views. The reader should therefore be cautioned that the views put forth are presented with the appropriate humility and with awareness that things might look different when viewed from a different angle.

Role of the SSBs:

The SSBs have somewhat belatedly recognized the importance of financial inclusion and are now catching up. However, they have a considerable way to go, since their principal concern is not inclusion but safety and reliability of the financial system as it exists. From this point of view, digital finance is disruptive and seemingly at odds with efforts to combat fraud and terrorism. Hence, rather than being a source of motivation, the SSBs need to be motivated.
The SSBs are a group of interactive regulators centered around the Basel Committee on Bank Supervision which has been acquiring critical importance by accretion. Realization has slowly grown that increased coordination between the main financial regulators is needed to preserve the stability of the international financial system.

The BCBS was established by the G10 Central Banks in 1974 to provide a forum for regular cooperation among its member countries on banking supervisory matters. Its objective is to enhance understanding of key supervisory issues and improve the quality of banking supervision worldwide. The BCBS formulates supervisory standards and guidelines and recommends statements of best practice in banking. In this regard, the BCBS is best known for its international standards on capital adequacy and the Core Principles for Effective Banking Supervision.

In addition to the BCBS, the SSBs now include:

The Committee on the Global Financial System (CGFS), to undertake systematic monitoring and analysis of the functioning of financial markets aimed at improving market functioning and promoting stability; the Committee on Payments and Market Infrastructures (CPMI), to promote the safety and efficiency of payment, clearing, settlement and related arrangements; the Financial Action Task Force on Money Laundering (FATF), established by the G7 in 1989, to combat money laundering and terrorist financing; the Financial Stability Board (FSB), established in April 2009 as the successor to the Financial Stability Forum (FSF) to coordinate effective international coordination of financial and regulatory policies at the national level supervisory and other financial sector policies; the International Association of Deposit Insurers (IADI); the International Association of Insurance Supervisors (IAIS); the International Accounting Standards Board (IASB); the International Auditing and Assurance Standards Board (IAASB); the International Monetary Fund (IMF); the International Organisation of Securities Commissions (IOSCO); the Joint Forum (JF), established in 1996 to deal with issues common to the banking, securities and insurance sectors, including the regulation of financial conglomerates; the Organisation for Economic Cooperation and Development (OECD), and the World Bank (WB).

Further detail on these organizations can be found in Appendix 1 to this Report.

The BCBS took an interest in issues of financial inclusion in a series of meetings co-chaired by Stefan Ingves and Queen Maxima of the Netherlands. These meetings established the need to consider, along with the more conventional topics, the interest of the international financial system in the financial inclusion of the unbanked and underbanked, and the consequent need to adjust various aspects of regulations accordingly.

In turn, the G-20 created the Global Partnership for Financial Inclusion, GPFI, at their Seoul Meeting of 2010 with the purpose of providing sustained work on the subject. Spearheading the implementation were three key Implementing Partners: the Alliance for Financial Inclusion (AFI), the Consultative Group to Assist the Poor (CGAP), and the International Finance Corporation (IFC). Thereafter, a number of additional implementing partners were incorporated: the World Bank in 2012, the Organisation for Economic Co-operation and
Development (OECD) in 2013, the Better Than Cash Alliance (BTC) and the International Fund for Agricultural Development (IFAD) in 2014 and the SME Finance Forum in 2015.

The critical discussion in these fora has been whether inclusion hinders or helps economic and financial stability; whether, therefore, the goals of stability and inclusion are compatible or involve a tradeoff, and, under conditions encourage such compatibilities or tradeoffs. As a by-product, inputs from many jurisdictions that had not been heard earlier in the BCBS discussions became manifest. This has enriched the discussion and led, in part, to the formation of the Basel Consultative Group meetings, in which the BCBS looks for input from jurisdictions not heretofore consulted.

Digital Finance can be thought of being a topic belonging to GPFI’s Financial Inclusion Action Plan, Area 10: “Expand opportunities for innovative technologies to grow responsible financial inclusion.” Indeed, electronic wallets and other similar innovations began to be seen as having great potential to bring about major advances in Financial Inclusion. Accordingly, Regulators in developing and emerging markets felt impelled to examine the issues involved and, in many cases, adopt policies. By contrast, adoption of a digital finance policy on the part of the regulators in the BCBS countries lags far behind those involved in active financial inclusion policies.

The Committee on Payments and Market Infrastructures (CPMI), for its part, has very recently (April 2016) co-authored a report with World Bank entitled “Payment aspects of financial inclusion” which presents an overview of the major issues from their point of view. http://www.bis.org/cpmi/publ/d144.htm

For its part, in December, 2015, the Basel Committee on Bank Supervision, BCBS, issued an important document entitled “Guidance on the application of the Core principles for effective banking supervision to the regulation and supervision of institutions relevant to financial inclusion”, which also addresses issues of digital finance. This constitutes a thoughtful and extensive discussion, setting forth the views of the BCBS on the application of the Core Principles in a setting where financial inclusion is important. Moreover, to their credit, they requested comments by March 31, which, I understand, where provided by various parties. Indeed, the current author also provided such a comment, and participated in a Webinar hosted by Accion’s Center for Financial Inclusion.

For the BCBS document, please see http://www.bis.org/bcbs/publ/d351.htm.


AFI, the Alliance for Financial Inclusion, for its part created a Global Standards Proportionality Working Group (GSPWG), in September of 2014, which adopted its own Charter and, along with AFI’s Global Standards Sub-Committee (GSSC) produced an AFI paper entitled “Potential
Impacts of Global Standards on National Financial Inclusion Policies. This document was presented to the Basel meeting of H.M. Queen Maxima and Heads of SSBs.

Further initiatives were taken in May of 2015. The Second GSPWG meeting held in Kuala Lumpur back-to-back with the Global Symposium on Proportionality in Practice created three subgroups, one to focus on AML/CFT, another to focus on the Basel financial stability standards and a third to concern itself with deposit insurance.

The SSBs constitute a challenge to financial regulators of emerging and developing nations and call for an institutional response, which is basically generated within AFI. It is by this mechanism that the SSBs create motivation in the AFI community, a motivation to show the SSBs that the community of regulators of emerging and developing nations represent jurisdictions with requirements that are legitimate and require proper recognition, even from the point of view of the self-interest of the countries represented in the SSBs.

The relationship between the SSBs and the financial regulators of emerging and developing nations, can, therefore, be seen as a dynamic which feeds recursively on itself in successive rounds of improved understanding and regulation that can ultimately be expected to converge to a jointly accepted standard.

It is an interesting footnote to record that there are some 90 million or so unbanked and underbanked persons in the European Union and some 17 million unbanked and another 50 million underbanked in the United States. Much of the work done on Financial Inclusion in the emerging and developing nations could, therefore, be usefully applied in these more advanced countries. When and if this becomes recognized, there will be a new flow of expertise from the AFI membership to the countries sitting on the BCBS.

Role of the Special UN Secretary-General’s Special Advocate for Inclusive Finance for Development (UNSGSA), Queen Maxima of the Netherlands.

Queen Maxima occupies a special place. “A Royal Who Cares.” For those of us who remember the classical Grace Kelly and her elevation to Princess Consort of Monaco, it all seems wonderful, especially since it is an amplified version.

Queen Maxima can ask all the awkward questions and does so with infinite grace. E.g. “Are you sure you have enough bandwidth in the backwoods?” “Are all these accounts that you have created for the recipients of conditioned transfers actually being used?” Hence, she is a major motivator of progress towards financial inclusion and digital finance. At the same time, she is also a very effective advocate with the SSBs which she has pushed with the same grace and persistence.

It should again been noted that the Queen, along with Chairman Ingves of the BCBS provided the impetus for putting the inclusion issue on the SSB agenda.
Role of the WB, IMF and similar international bodies:

The international agencies have bought into the importance of financial inclusion and recognize the enormous potential of digital finance. Accordingly, they motivate the member countries in a variety of ways. CGAP occupies a special place in this constellation and its role needs to receive special recognition.

Both the WB and the IMF regard Financial Inclusion as desirable and both support it. By the same token, since digital finance is integral to financial inclusion, they support the latter too. However, their perspectives are somewhat different. Whereas the IMF sees financial inclusion as contributing to financial stability (inter alia, by spreading any burden of adjustment among a broader population), the WB comes at it more from a development angle and pushes for a numerical target of Access by 2020.

Further evidence is the willingness and interest in both organizations to assist with matters pertaining to the drafting of National Strategies of Financial Inclusion, the improvement of payment systems, the application of proportional supervision, and other such essentials of a financial inclusion strategy. It is less clear to what extent either institution tends to respond to country initiatives in this regard as compared to a policy of actively motivating such initiatives. It would appear, on balance, that there are instances of both kinds, perhaps in response to uneven opportunities and differing compositions of the country teams.

The IFC is somewhat separate from the WB, with its own staff having a greater private sector and transactions orientation. However, in matters of financial inclusion and digital finance, the IFC and the WB function mostly on a coordinated basis and often with joint teams or missions. Hence there is no significant difference in the motivating role of the two institutions.

The one instance where the IFC is particularly active is in the management of the Sustainable Banking Network, a collectivity of some two to three dozen institutions, among Regulators, Central Banks and Finance Ministries, concerned with environmental and related issues. The SBN, so far, has met once or twice a year and had very limited impact on effective policies.

A special role corresponds to CGAP, the Consultative Group to Assist the Poor, housed at the World Bank but not of the bank. 34 organizations have come together to form CGAP. The focus is to promote the development of infrastructure relevant to the poor. This obviously includes digital finance and the organization has been active in researching a range of topics and solutions that is has made available through various mechanisms to interested regulators and others.

CGAP is an enormously valuable resource as an information provider, a locus of forward thinking and a contributor to evidence based decision making. It is much less clear, however, to what extent it actually motivates adoptions of policy by Regulators or even private sector
operators. Most likely, the major impact it has is through providing relevant information which then indirectly leads to adoption or application by the relevant decision makers.

Finally, it is important to mention the Better than Cash Alliance (BTCA) which plays an important advocacy role in the transition towards digital finance. The BTCA also combines its advocacy with the provision of expert technical advice on the implementation of specific solutions and thereby has the ability of facilitating the untying of knots when this is important.

**Special role of AFI, the Alliance for Financial Inclusion:**

The member-run nature of AFI gives it a unique role in terms of motivating all matters connected with financial inclusion and with digital finance. AFI members own their agenda; they believe in what they do. Accordingly, the various AFI motivators are uncommonly effective: from the Maya Commitments and their codas, through the target setting in working groups. By the same token, it is worth exploring to what extent it may be possible to further enhance the effectiveness of AFI.

AFI is made up of over 100 members from more than 90 countries. Originally funded by the Bill & Melinda Gates Foundation (BMGF), it has recently made the transition to an independent international organization constituted under the laws of Malaysia and with core funding from its membership. The BMGF and others continue to fund particular parts of its activities, thereby contributing very significantly to the scope it is able to have.

Members of AFI believe that inclusion increases fairness of the distribution of income and wealth. In turn, as new opportunities for economic participation of the poor are made possible, the new purchasing power of these selfsame poor increases market demand. Financial inclusion is the lever used to effectuate change in the real sector of the economy.

AFI disseminates best practices of financial regulation and innovation. Digital finance is one of the key innovations disseminated. Peer learning is AFI’s means of generating rapid diffusion. Thereby it becomes possible to respect individual country differences, and yet distill the general principles that apply. Data gathering and documentation go hand in hand with policy experimentation and application, thereby producing a catalogue of tried and true effective policy interventions. Digital Finance has increasingly permeated much of AFI’s activities, in response to member demand. At present perhaps 70% of AFI’s activities are related one way or another to digital finance.

AFI has been exceptionally effective as a consequence of several unusual features of its makeup:

a. **Ownership, ownership, ownership.**

AFI is owned by its members and the members are acutely aware of their ownership. Its agenda is shaped and prioritized by the needs and desires of its member. As a consequence, members make use of the offerings and services of AFI in a way and to an extent unusual in other worldwide organizations. AFI is highly effective because it reflects the needs of its
members and offers the wherewithal for its members to accomplish their purposes in the area of financial inclusion.

b. Peer demonstration effect – “can do”

Often the main obstacle standing in the way of a new policy initiative is the belief that it is unattainable. The risk aversion of the public servant then takes over, for a failed initiative is much costlier that something not tried. AFI showcases what can be done, and thereby increases what gets attempted. More attempted, in turn, signifies more achieved. The final result is an upward spiral of improvement in successive rounds of positive and mutually reinforcing externalities.

c. Peer support and reinforcement.

AFI platforms, programs and offerings enable policymaking institutions that are in the process of designing and implementing policy changes to fully benefit from their peers’ know-how and lessons learned. For example, peer-to-peer advisory services enable members to work bilaterally with an experienced peer to ensure the sustainability of their reforms.

d. Peer competition.

The public presentation of achievements in the area of financial inclusion in front of the whole AFI membership has constituted an important incentive to actually implement policy change. The Maya Declaration, in which members have made formal commitments to institute particular policy improvements has helped set objectives and deadlines that have, in turn, strengthened the hand of reformers inside their own governments. The Sasana Accord of 2013 and the Maputo Accord of 2015 reinforced the effectiveness of this mechanism.

A healthy dose of peer competition, which is a constant dynamic within the AFI network, has thus led member institutions to set ambitious national policy objectives in a “can do” approach. Peer competition has also inspired AFI members to effectively carry out the reforms to which they had previously committed. The fulfillment of Maya Declaration commitments in the areas of digital finance, consumer protection and empowerment, and financial inclusion data provides ample evidence of this. Through knowledge sharing combined with practical, demand-driven support, AFI members inspire each other to implement progressive Financial Inclusion policies. National and global Financial Inclusion efforts become coordinated and aligned with countries’ needs.

AFI thus has an effective motivational structure that can be seen to have operated effectively. The question to be raised is whether, where or when it might run into diminishing returns. And, if so, how that might be remedied, even before it happens!

The long term challenge for AFI is to provide continuing challenge to the top tier of Regulators in its Membership, in terms of things to learn, ambitions to have, and new improvements to make in their economies. (The Members not in the top tier still have the challenge of catching up with the top tier!)

Keeping the top tier challenged involves several elements:

(a) Providing an input on what should be on the “unfinished agenda”;
(b) Providing a view of what might be lurking on the horizon;
(c) Providing a view on what “reverse technical assistance” AFI Members might provide the OECD countries
Under the first category one would find what currently goes under the name of “Reg Tech”, which should more properly be called “Super Tech”, namely the application of technology to off-site bank supervision. The appeal here lies in the resource savings that could be generated, but also in what might be discovered as systematic comparisons are instituted across banks and not just within banks. Comparative data, for size categories, for specialization categories, etc., will reveal behavior that cannot be detected when each banking house is examined separately. In addition, the application of standard tools of hypothesis testing could then come into their own. For instance, comparing average duration of loans between banks could apply simple standard error tests; comparison of averages across gender could be subject also to confidence interval tests. Such simple improvements of methods would have high payoffs.

Under the first category would also come the expansion of regulatory interest into cross border concerns. The most obvious of these is the cross border linkage of national electronic wallet systems. If Kenya’s electronic wallets work well in Somalia, why can Honduras’ not work well in Guatemala? For that matter, why shouldn’t the small Caribbean islands not be linked in a single electronic wallet system? And what would stop those wallets from being linked across long migration corridors to facilitate the often treacherous passage of migrants and refugees?

Finally, this first category would also include a much greater involvement of the AFI Membership in the subject matters treated by the SSBs. So far, AFI members have mostly left world systemic issues to the G-10, or at best the G-20. But, with time, expertise and evolution, it may become increasingly appropriate for a greater number of them to have a say on matters of systemic importance for the world financial system (this also connects with staff upgrading treated below).

In the “on the horizon” category one would find the block chain and related technologies. But also such more humdrum activities as linking expatriate communities to their home country banking systems.

Under reverse technical assistance, there would be a substantial number of topics to explore, considering that many innovations well established in AFI Member practice would be applicable in OECD contexts, especially for their recent immigrant populations.

There is also scope for AFI to expand its Mission into some new areas useful to all its Members. These might be:

(a) **Upgrading of personal skills.** Here we have increased training in what Regulators do (economic analysis, forecasting, auditing, etc). It involves Master’s and Ph.D. level training for a significant part of the staffs. But it also involves learning the Skills of the Influence, becoming expert at effective human interaction and teamwork.

(b) **Construction of effective career paths.** Here we have the design of Human Resource systems for the Regulator which lays out alternative paths for staff development, staff training, and gathering of experience across the different segments of Regulator functions, in order to produce well rounded and highly qualified individuals who are mutually substitutable and can interact in teams across a very broad front.
It is important to bear in mind that many of the skills in Regulation and Supervision have to be learned in an apprenticeship setting, on the job and by accretion. Wisdom comes in good part from experience and from exposure to a broad range of situations. Timed right, according to the Fletcher School, programs and degrees can boost the accretion of competence and confidence, but in no way replace quality apprenticeship settings. Bear in mind, also, that just as Reg Tech is needed to increase the effective scope of the Regulator in small jurisdictions, so the development of highly effective and well integrated teams in such small jurisdictions will make all the difference to the quality of regulation. (c) Design of Cognate Remuneration and Reward Systems. How and for what the personnel of the Regulator is rewarded, promoted and paid for will make an enormous difference to the morale and the effectiveness of the Regulator. Hence, the design of the remuneration and reward system needs to be closely tied into the design of the career paths within the organization. However, the proper design of remuneration and design systems should not stop at the door of the Regulator, rather, it should really extend to the whole financial system. The signs are clear, and the BCBS has recognized them: remuneration formulas inside the financial institutions need to be rethought. For one thing, bonuses need to be accrued and paid out over a sufficiently long period, so that the result of the quality of management can have become obvious. Alternatively, claw-back clauses need to come into play. Golden parachutes might be unavoidable in some instances, but surely need to be structured so that hit and run is minimized. The examples from recent experience are many. Bear in mind that it is extremely hard to effectively measure marginal product in the finance industry: joint product is ubiquitous and reputational externalities dominate in many instances. There are, no doubt, outstanding talents that build institutions, but there is also a hysteresis that basically means that pay scales in finance are what they are because they are. Absent an effective way to assess marginal product, market failure can endure a long time. Note, finally, that the cost of finance impinges on the whole economy. Even more, however, for the smaller the enterprise the higher the cost of finance. Thus, the small and those with less bargaining power pay more for the same service. While the scale structure of interest rates is often explained or justified by issues of scale, the inelasticity of demand makes this a very partial explanation indeed.

AFI thus has a lot of space to grow and deepen its contribution to Financial Inclusion and its contribution to broader economic inclusion and fairness.

**Catalytic Role of the Gates Foundation:**

Through its sponsorship of AFI, the Gates Foundation has had a determining influence on financial inclusion and the development of a digital finance ecosystem. In addition, a number of other Foundation initiatives have been
significant motivators. The design of pro-poor low cost payment platforms is a particular case in point. More generally, the Foundation has helped identify “what is achievable” and thereby has played a major role in motivating countries to try harder and aim for greater success. The Gates Foundation has indeed funded a range of actors, with a variety of missions. They could be grouped broadly as follows:

Wide Ranging Financial Inclusion Mandate Institutions
Alliance for Financial Inclusion (AFI)
Consultative Group to Assist the Poor (CGAP)

Specific Mandate Institutions
GSMA: Mobile Money for the Unbanked
Better than Cash Alliance
Innovations for Poverty Action (IPA)
bKash
Financial Sector Deepening Trusts: Kenya, Tanzania
M-KOPA

Research and Education Institutions
The Fletcher Leadership Program in Financial Inclusion, Tufts University
Institute for Money, Technology & Financial Inclusion (IMTFI), University of California, Irvine

Advocacy Institutions
United Nations Secretary-General’s Special Advocate for Inclusive Finance for Development (UNSGSA)

International Financial Institutions
International Finance Corporation (IFC)
World Bank Development Research Group
World Bank Financial Inclusion Practice

The common thread running throughout the Foundation’s work has been to support Financial Inclusion and principally through the application of innovative technology, essentially digital finance in its several versions. (Notice that where it has funded solar energy it has done so for application to digital communications and thereby to make digital finance possible.) Throughout, it has attempted to show what is possible when technology is intelligently applied.

The Gates Foundation’s funding of AFI put in place a self-perpetuating mechanism for continuously upgrading Financial Inclusion policy and for adopting new technologies quickly, through a diffusion process based on peer learning. (See above for some other features that made AFI particularly successful). At the same time, the Foundation also significantly supported CGAP and its development of technological and instructional materials, which were in turn useful to the AFI membership.
Other prongs of the Foundation’s programs were more directly oriented to support doers, but always with a view to the potential replicability and scalability of the particular venture. Thus, it is apparent that part of the purpose in all cases has been to encourage experimentation, in order to ascertain what works (in given situations) and what does not, in order for others to them be able to learn from the experience. The Fletcher program is particularly interesting in this regard, because it looks to combine Academic instruction with field experience and brings in a major component of Skills of Influence.

Participating in IFC/WB initiatives can also be seen partially as an operation to reduce the perceived risk of innovation on the part of Regulators. “If the WB and/or the IFC does this, it cannot be all wrong; even more, it may even be reputation enhancing to participate in something new they are trying.” Such considerations are not irrelevant, considering that Regulators are mandated to be conservative and cautious!

Now that AFI is solidly established, with its members paying its core expenses, and its motivation structure tried and true, there is a new the challenge for the Foundation. This is to create a sister institution to AFI, dedicated to the cultivation of a cadre of officials to staff the Regulators that are equipped with the best tools to make financial inclusion the predominant reality around the world. This new institution would be the locus of “on the horizon” thinking and innovation, including possible applications of block chains, but would also provide instruction in such skills as Reg Tech and off-site supervision, skills of the influence such as negotiation, the requisites of interconnectivity and how to get there, and how to exploit economies of scale in back-office procedures, etc. Ideally, such a Center of Excellence would be located at a University, provide tailored training at a high level, possibly leading to a Master’s Degree, and interact with the Foundation and with AFI to ensure that the curriculum retains pertinence to its constituency, even while maintain high academic standards. An initiative of this sort would continue and sustain the motivation which is embodied in the positive cycle at work in the Financial Inclusion world thanks to AFI and the catalytic funding of the Bill & Melinda Gates Foundation.
Appendix

Standard-Setting Bodies in the Compendium

The following is a list of standard-setting bodies whose standards are featured in the Compendium of Standards.

**Basel Committee on Banking Supervision (BCBS)**

The BCBS, established by the G10 Central Banks in 1974, provides a forum for regular cooperation among its member countries on banking supervisory matters. Its objective is to enhance understanding of key supervisory issues and improve the quality of banking supervision worldwide.

The BCBS formulates supervisory standards and guidelines and recommends statements of best practice in banking. In this regard, the BCBS is best known for its international standards on capital adequacy and the Core Principles for Effective Banking Supervision.

**Committee on the Global Financial System (CGFS)**

The CGFS, a committee of major advanced and emerging economy central banks, undertakes systematic short-term monitoring of global financial system conditions, longer-term analysis of the functioning of financial markets, and the articulation of policy recommendations aimed at improving market functioning and promoting stability.

**Committee on Payments and Market Infrastructures (CPMI)**

The CPMI (formerly known as the Committee on Payment and Settlement Systems or CPSS) promotes the safety and efficiency of payment, clearing, settlement and related arrangements, thereby supporting financial stability and the wider economy. It monitors and analyses developments in these arrangements, both within and across jurisdictions. It also serves as a forum for central bank cooperation in related oversight, policy and operational matters, including the provision of central bank services.

**Financial Action Task Force on Money Laundering (FATF)**

The Financial Action Task Force (FATF) was established by the G7 in 1989, and is an intergovernmental body with 36 members whose purpose is the development and promotion of policies, both at national and international levels, to combat money laundering and terrorist financing.

The FATF is responsible for setting the international standards for combating money laundering and terrorist financing, and works to generate the necessary political will to bring about the required national legislative and regulatory reforms. It also monitors
members’ progress in implementing necessary measures, reviews money laundering and terrorist financing techniques and counter-measures, and promotes the adoption and implementation of appropriate measures globally.

**Financial Stability Board (FSB)**

The FSB was established in April 2009 as the successor to the Financial Stability Forum (FSF). Its mandate is to coordinate at the international level the work of national financial authorities and international standard setting bodies and to develop and promote the implementation of effective regulatory, supervisory and other financial sector policies.

The FSB brings together national authorities responsible for financial stability in significant international financial centres, international financial institutions, sector-specific international groupings of regulators and supervisors, and committees of central bank experts.

**International Association of Deposit Insurers (IADI)**

The IADI, founded in 2002 with members and associates representing over 70 jurisdictions, is a non-profit organization domiciled at the Bank for International Settlements in Basel, Switzerland.

The IADI provides a forum for international cooperation among deposit insurers, central banks, and international organisations on issues related to financial stability, deposit insurance, and resolution activities. As part of its objective to enhance the effectiveness of deposit insurance systems, IADI, together with the BCBS, published the *Core Principles for Effective Deposit Insurance Systems* and issued a methodology for the assessment of compliance with the Core Principles.

**International Association of Insurance Supervisors (IAIS)**

Established in 1994, the IAIS represents insurance regulators and supervisors of some 190 jurisdictions in nearly 140 countries and has also more than 120 insurance professionals, insurers, reinsurers and trade associations as observers. The IAIS mission is to promote effective and globally consistent regulation and supervision of the insurance industry in order to develop and maintain fair, safe and stable insurance markets for the benefit and protection of policyholders; and to contribute to global financial stability.

The IAIS issues global insurance core principles, standards and guidance material, develops a common framework for the supervision of internationally active insurance groups, provides training and support on issues related to insurance supervision, fosters supervisory cooperation and information exchange, develops assessment mechanisms that help assess and enhance observance of IAIS core principles and standards, works closely with other international institutions to promote financial stability, and organises meetings and seminars for insurance supervisors.
International Accounting Standards Board (IASB)

The International Accounting Standards Board is an independent, privately-funded accounting standard setter based in London, UK. Board members come from nine countries and have a variety of functional backgrounds. The Board is committed to developing, in the public interest, a single set of high quality, understandable and enforceable global accounting standards that require transparent and comparable information in general purpose financial statements.

In addition, the Board cooperates with national accounting standard setters to achieve convergence in accounting standards around the world. The IASB is responsible for developing and approving International Accounting Standards (IAS). To-date, a total of 40 IASs have been promulgated by the IASB and its predecessor, the International Accounting Standards Committee (IASC).

International Auditing and Assurance Standards Board (IAASB)

The International Auditing and Assurance Standards Board (IAASB) is an independent standard-setting body that develops auditing and assurance standards and guidance for use by all professional accountants under a shared standard-setting process involving the Public Interest Oversight Board (PIOB), which oversees the activities of the IAASB, and the IAASB’s Consultative Advisory Group, which provides public interest input into the development of the standards and guidance. The structures and processes that support the operations of the IAASB are facilitated by the International Federation of Accountants (IFAC).

International Monetary Fund (IMF)

The IMF’s mandate is the surveillance of its members’ macroeconomic and financial policies, as well as of the international monetary system. The IMF develops and monitors international standards in areas relevant to this mandate. In collaboration with other standard-setting bodies, it has developed international standards for data dissemination and transparency practices in fiscal, monetary and financial policies, and has contributed to the development of international standards for banking, as well as for insurance and securities supervision.

In addition, the IMF (in cooperation with the World Bank in developing and emerging market countries) is assessing compliance with all the core international financial sector standards through its FSAP and ROSC programs. The IMF periodically publishes reports to its Board summarizing country experiences with the implementation of the standards and codes that it monitors.

International Organisation of Pension Supervisors (IOPS)
IOPS is a legal body whose Governing Members are entities responsible in whole or in part for the supervision of pension funds, plans, schemes or arrangements in a country or in the subdivision of a country. Formed in July 2004, the IOPS has over 80 members and observers from over 70 countries and territories worldwide.

One of the main purposes of the IOPS is to serve as the standard-setting body on pension supervisory issues and on regulatory issues related to pension supervision, through the development and promotion of the implementation of international principles, standards, and good practices in pension supervision, having regard to the variety of different private pension system. The IOPS Secretariat is hosted by the Organisation for Economic Cooperation and Development (OECD).

**International Organisation of Securities Commissions (IOSCO)**

IOSCO is the international policy forum for national regulators of securities and futures markets. IOSCO develops and promotes standards of securities regulation in order to maintain efficient and sound markets. It draws on its international membership to establish standards for effective surveillance of international securities markets and provides mutual assistance to promote the integrity of markets by a rigorous application of the standards and effective enforcement against offences.

**Joint Forum (JF)**

The Joint Forum was established in 1996 under the aegis of the Basel Committee on Banking Supervision (BCBS), the International Organization of Securities Commissions (IOSCO) and the International Association of Insurance Supervisors (IAIS) to deal with issues common to the banking, securities and insurance sectors, including the regulation of financial conglomerates.

The objective of the Joint Forum is to support banking, insurance and securities supervisors in meeting their regulatory and supervisory objectives and, more broadly, to contribute to the international regulatory agenda in particular where risks exist across or in gaps between the three supervised sectors.

**Organisation for Economic Cooperation and Development (OECD)**

The OECD aims to promote policies designed to achieve sustained economic growth and employment in its member countries. In the area of promoting efficient functioning of markets, the OECD encourages the convergence of policies, laws and regulations covering financial markets and enterprises.

**World Bank (WB)**
The WB develops international standards in areas of direct operational relevance to its mandate of promoting financial sector development. In collaboration with other standard-setting bodies, it has developed international standards for insolvency and creditors rights, financial infrastructure (e.g. international remittances services, credit reporting systems), and public debt management.

The WB has also contributed to the development of international standards and assessment methodologies for financial sector supervision, AML/CFT, payment and settlement systems, accounting and auditing, and corporate governance standards. The WB, in cooperation with the IMF, is assessing compliance with all the core international financial sector standards through its FSAP and ROSC programs.
The Global Partnership for Financial Inclusion (GPFI) is an inclusive platform for all G20 countries, interested non-G20 countries and relevant stakeholders to carry forward work on financial inclusion, including implementation of the G20 Financial Inclusion Action Plan, endorsed at the G20 Summit in Seoul.

At the G20 Summit in Seoul, the Leaders of the G20, recognizing financial inclusion as one of the main pillars of the global development agenda, endorsed a concrete Financial Inclusion Action Plan. Financial inclusion was not only prominently included in the Leaders' Declaration, but was also highlighted as an important component under the Seoul Development Consensus and the financial sector reform agenda. Subsequently, the Leaders announced the establishment of the GPFI to institutionalize and continue the work began by the Financial Inclusion Experts Group (FIEG) in 2010. The GPFI was officially launched on 10 December 2010 in Seoul.

The GPFI is the main implementing mechanism of the endorsed action plan by G20 Leaders during the Seoul Summit and functions as an inclusive platform for G20 countries, non-G20 countries and relevant stakeholders for peer learning, knowledge sharing, policy advocacy and coordination. It contributes to strengthen coordination and collaboration between various national, regional and international stakeholders, as called for in Action Item 6 of the G20 Financial Inclusion Action Plan. Spearheading the implementation were the three key Implementing Partners: the Alliance for Financial Inclusion (AFI), the Consultative Group to Assist the Poor (CGAP), and the International Finance Corporation (IFC). In 2012, the World Bank joined the GPFI as Implementing Partner. The Organisation for Economic Co-operation and Development (OECD) joined the GPFI as Implementing Partner in 2013. In 2014, The Better Than Cash Alliance and the International Fund for Agricultural
Development (IFAD) also joined as Implementing Partners. The SME Finance Forum became an Implementing Partner in 2015.

The GPFI’s efforts include helping countries put into practice the G20 Principles for Innovative Financial Inclusion, strengthening data for measuring financial inclusion, and developing methodologies for countries wishing to set targets.

The GPFI Terms of Reference are available here.

Honorary Patron

Her Majesty Queen Máxima of the Netherlands is the Honorary Patron of the GPFI. She was invited to this role in June 2011 in her capacity as the UN Secretary-General’s Special Advocate for Inclusive Finance for Development (UNSGSA). As Honorary Patron of the GPFI, her main task is to advocate for financial inclusion and promote GPFI’s work in the international arena. This includes advocating the importance of coherence among multilateral and international policy initiatives, as well as the importance of engaging relevant stakeholders. She also uses her considerable experience in the area of promoting financial inclusion to raise the profile of inclusive finance worldwide. Before the launch of the GPFI following the G20 Summit in Seoul, Queen Máxima was Honorary Chair of the G20 SME Finance Data Working Group.
1. Purpose of the Partnership

1.1 The G20 established at the 2010 Seoul Summit the Global Partnership for Financial Inclusion as a “systematic structure for implementing the G20 Financial Inclusion Action Plan”. The GPFI was officially launched at its first meeting in Seoul on December 10th, 2010.

1.2 The framework and goals of the GPFI are defined by the Social Development Consensus for Shared Growth, in particular in Annex on Financial Inclusion and the Joint Action Plan. The GPFI is responsible for establishing and following a workplan within, and consistent with this framework.

1.3 The GPFI reports to the G20 Finance ministers’ process and will pursue its activity in the future until the G20 decides otherwise.

2. Membership, partnership, Honorary Patron

2.1 The GPFI was created as an “inclusive platform for all G20 countries, interested non-G20 countries and relevant stakeholders”. All G20 countries are therefore members of the GPFI by right; non-G20 countries are welcome to express their interest in participating in the GPFI’s work, acceptance being subject to non-objection by the acting GPFI co-chairs.

2.2 Other relevant international organizations, stakeholders from the public and private sector or non-governmental organizations are welcome to express their interest to join the GPFI as Partners. Information about such interest should be brought to the attention of the co-chairs, who will share the information to the whole group if deemed appropriate. Acceptance will be decided by the GPFI members on a consensus basis.

2.3 A specific status of Key Implementing Partner is attributed to the Alliance for Financial Inclusion (AFI), the Consultative Group to Assist the Poor (CGAP), the International Finance Corporation (IFC) and, since December 2011 the International Bank for Reconstruction and Development (IBRD), and in the future to other partners if deemed fit by the G20 members.

2.4 Her Royal Highness Princess Maxima of the Netherlands is Honorary Patron of the GPFI alongside her role as the UN Secretary General’s Special Advocate for Inclusive Finance for Development. The Honorary Patron advocates for financial inclusion, including the importance of complementarity and coherence among multilateral and international policy initiatives as well as the importance of engaging relevant stakeholders at the global and national levels. The Honorary Patron is regularly informed and consulted by the GPFI co-chairs on the work and emerging initiatives of the GPFI and its subgroups, and contributes to promote GPFI’s work in the international arena.

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3. Organization of work

3.1 The work of the GPFI is led by the GPFI co-chairs and organized in subgroups headed by subgroup co-chairs. Implementation of the activities is led by the Key Implementing Partners, with appropriate distribution of the worklistens.

3.2 GPFI co-chairs. GPFI is chaired by three co-chairs, formed from the G20 Troika, i.e. the representatives of the former, current and future G20 Presidencies. In consultation with subgroup co-chairs, the GPFI co-chairs are responsible for:
- leading and organizing the overall work of the Partnership;
- holding at least one yearly co-chairs meeting and one GPFI meeting open to the whole Partnership; chairing as many other meetings and phone conferences as judged appropriate; and organizing with the Implementing Partners and the host country the annual GPFI Forum;
- leading the publication of all GPFI documents and reporting to the G20 processes (G20 Development Working Group, G20 Finance Ministers, Sherpas and G20 Leaders);
- reaching out to relevant stakeholders (governments, public or private institutions) to raise appropriate funding to support the GPFI activities, taking advantage of adequate events and partner’s networks;
- maintaining the GPFI overall contact list and agenda;
- listing with the Honorary Patron and preparing her briefing papers;
- any other business related to general organization of the GPFI, including the selection process for appointment or replacement of subgroup co-chairs.

3.3 GPFI subgroups. The GPFI organizes its works in as many subgroups as deemed necessary. Three subgroups were originally created: “Financial Inclusion Principles and Engagement with the Standard-Setting Bodies”, “MME Finance” and “Data and Measurement”. All G20 participants are welcome to join any subgroup.

3.4 The subgroups are chaired by representatives of interested members, in the limit of three members for each subgroup.

3.5 The subgroup co-chairs are responsible for:
- organizing the work within the subgroup and leading the production of all outputs;
- maintaining the circulation of all documents produced to a distribution list comprising all subgroup participants and at least one contact point for every G20 country; upon reaching consensus, transmitting these documents to the GPFI co-chairs for endorsement by the whole GPFI;
- ensuring coordination with other subgroups and overall GPFI co-chairs;
- updating the distribution list of the subgroup and convening at least one subgroup meeting a year, and as much conference calls as needed in adequate format.

4. Shared outputs

4.1 The GPFI produces reports and other documents in the form of studies, notes, concept papers or others, related to its work, objectives and priorities, and intended for the G20 process.

4.2 Draft documents produced within a subgroup are circulated to all subgroup participants and contact points with sufficient delay to react, and discussed until consensus is reached amongst G20 subgroup participants. Upon such consensus, the documents are transmitted to the GPFI co-chairs which will circulate them to all GPFI participants.

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4.3 The GPF co-Chairs are responsible for leading the finalization of all documents, and, in particular, ensuring that all member countries of the GPF have had an opportunity to review and express their opinion on all documents produced by the GPF. Once consensus is reached on these documents among G20 members, they can be transmitted to G20 Finance Ministers, Sherpas, or Leaders for endorsement.

4.4 Once presented to the G20 Leaders and in the absence of objection, all productions of the GPF are to be made public on the GPF website.