



**Use of Alternative Data to Enhance Credit  
Reporting to Enable Access to Digital Financial  
Services by  
Individuals and SMEs operating in the Informal  
Economy**

**Guidance Note**

**PREPARED BY INTERNATIONAL COMMITTEE ON CREDIT  
REPORTING (ICCR)**

**June 28, 2018**

## Table of Contents

ACKNOWLEDGEMENTS.....	2
GLOSSARY OF TERMS.....	3
EXECUTIVE SUMMARY.....	4
I. INTRODUCTION AND BACKGROUND.....	10
II. DEFINITIONS, CATEGORIES AND DATA SOURCES OF ALTERNATIVE DATA.....	13
III. CHALLENGES, IMPEDIMENTS AND POLICY OPPORTUNITIES.....	16
3.1 ADOPTION OF ALTERNATIVE DATA FOR CREDIT REPORTING.....	16
<i>POLICY RECOMMENDATION 1: GUIDANCE ON THE USE OF ALTERNATIVE DATA.....</i>	<i>17</i>
3.2 IMPROVING AVAILABILITY AND ACCURACY OF INFORMATION.....	17
<i>POLICY RECOMMENDATION 2: UNIQUE IDENTIFIERS.....</i>	<i>18</i>
<i>POLICY RECOMMENDATION 3: VALIDATION OF UNIQUE IDENTIFIERS.....</i>	<i>19</i>
<i>POLICY RECOMMENDATION 4: DIGITIZING GOVERNMENT DATA MANAGEMENT SERVICES.....</i>	<i>20</i>
<i>POLICY RECOMMENDATION 5: OPEN DATA SYSTEMS AND STANDARDS.....</i>	<i>20</i>
<i>POLICY RECOMMENDATION 6: AUTOMATION.....</i>	<i>20</i>
<i>POLICY RECOMMENDATION 7: PROMOTE DIGITAL FOOTPRINT.....</i>	<i>21</i>
<i>POLICY RECOMMENDATION 8: DIGITIZE GOVERNMENT SERVICES.....</i>	<i>22</i>
3.2 EXPANDING CREDIT INFORMATION SHARING.....	22
<i>POLICY RECOMMENDATION 9: LEGISLATIVE REFORMS.....</i>	<i>23</i>
<i>POLICY RECOMMENDATION 10: PROMOTING INFORMATION SHARING.....</i>	<i>23</i>
<i>POLICY RECOMMENDATION 11: ESTABLISHMENT OF CREDIT REGISTRIES.....</i>	<i>23</i>
<i>POLICY RECOMMENDATION 12: REGULATORY OVERSIGHT ON NEW CREDIT REPORTING SERVICE PROVIDERS.....</i>	<i>23</i>
<i>POLICY RECOMMENDATION 13: MINIMUM THRESHOLDS.....</i>	<i>23</i>
3.3 ENABLING RESPONSIBLE CROSS BORDER DATA EXCHANGES.....	24
<i>POLICY RECOMMENDATION 14: COLLABORATION.....</i>	<i>25</i>
<i>POLICY RECOMMENDATION 15: HARMONIZATION OF DATA LAWS.....</i>	<i>26</i>
<i>POLICY RECOMMENDATION 16: HARMONIZATION OF DATA ATTRIBUTES.....</i>	<i>26</i>
<i>POLICY RECOMMENDATION 17: GLOBAL LEGAL IDENTIFIERS.....</i>	<i>26</i>
3.4 BALANCING INTEGRITY, INNOVATION AND COMPETITION.....	27
<i>POLICY RECOMMENDATION 18: RESPONSIBLE INNOVATION.....</i>	<i>27</i>
<i>POLICY RECOMMENDATION 19: REGULATORY INNOVATION TOOLS.....</i>	<i>28</i>
3.5 DATA PRIVACY, CYBER SECURITY AND CONSUMER PROTECTION.....	28
<i>POLICY RECOMMENDATION 20: DATA PRIVACY, CONSUMER PROTECTION AND CYBERSECURITY.....</i>	<i>29</i>
3.6 MAINTAINING PRICING TRANSPARENCY.....	31
<i>POLICY RECOMMENDATION 21: RISK BASED PRICING.....</i>	<i>31</i>
IV. CONCLUSIONS AND RECOMMENDATIONS.....	32
END NOTES.....	33

## ACKNOWLEDGEMENTS

This document is a product of the International Committee on Credit Reporting (ICCR) and the World Bank Group (WBG) based on the terms of reference established by GPMI SME Finance Sub Group. This report builds on previous work conducted by the ICCR namely “The General Principles for Credit Reporting Systems” (2011), the report “Facilitating SME Finance through Improved Credit Reporting Systems” (2014), the report “Credit Reporting Systems contribution to Financial Inclusion” (2017) and the GPMI report “Alternative Data: Transforming SME Financing” (2017).

In addition, the report incorporates the work of the GPMI Financial Consumer Protection Law (FCPL) Sub-Group Discussion Paper on Data Protection and Privacy for Alternative Data<sup>1</sup> on policy areas related to data privacy, consumer protection and cyber security, in so far as they relate to the use of alternative data in credit reporting.

The document benefited from a consultation process with members of the GPMI Subgroup on SME Finance and the GPMI members. We are especially grateful for the guidance and leadership from Gabriel R. Bizama, the Argentinian G20 representative, and the GPMI co-chairs of the SME Finance sub group Natascha Beinker, the German Federal Ministry for Economic Development and Cooperation (BMZ) and Ozlem Oktay, the Undersecretariat of Treasury, Turkey.

The ICCR would also like to thank the Chairman of the ICCR, Sebastian Molineus; the Secretariat: Luz Maria Salamina and Collen Masunda; and John Owens (independent consultant). Special thanks to colleagues from the WBG who provided insights: Ghada Teima, Fredesvinda Montes, and Matthew Saal. The document also benefited from managerial oversight by Mahesh Uttamchandani and the internal peer review by Fabrizio Fraboni and Matthew Gamser.

## **GLOSSARY OF TERMS**

AI	Artificial Intelligence
APEC	Asia Pacific Economic Cooperation
Big Data	Large volumes of unstructured and structured data
BIIA	Business Information Industry Association
CRSPs	Credit Reporting Service Providers, including credit registries and credit bureau
Fintech	Financial technology
GDPR	General Data Protection Regulation
ID4D	Identification for Development
IFC	International Finance Corporation
Credit market inefficiency	inefficiencies in information processing and sharing due to absence or inadequate credit reporting mechanisms
MSMEs	Micro, Small and Medium Enterprises
PSD2	Second Payment Systems Directive

## EXECUTIVE SUMMARY

Lack of credit data is one of the major obstacles to individuals and MSMEs financing in developing countries. Despite the insufficient credit data, MSMEs and individuals generate vast amounts of non-credit digitized data daily. MSMEs and individuals are leaving vast digital footprints and data trails on mobile and online payments platforms, social networks, and other non-banking platforms such as online record keeping and trade transactions.

Financial institutions are starting to mine these vast amounts of digitized alternative data to aid in their decision-making processes and to promote financial inclusion. Traditional and non-traditional lenders are now leveraging on alternative data including transactional (payments) data, behavioral data and social media data to determine capacity and willingness to repay loans. Alternative data is also being used to provide granularity on customer preferences and behaviors, which can help in designing new financial products and services.

Credit reporting service providers have also begun adopting alternative data for credit worthiness evaluation. The use of alternative data in credit reporting can promote access to credit for borrowers with “no credit files”, while it can also complement traditional data for borrowers with “thin credit files”.

Notwithstanding the benefits of alternative data there are various challenges that impede the adoption of alternative data for credit reporting. The challenges include lack of enabling legal and regulatory environment, difficulties in verifying identity of data subjects, multiplicity and fragmentation of data sources which often result in inaccurate or incomplete information, and the opaqueness of alternative scoring methodologies. Absence of supportive legal environment has the potential of constraining the use of alternative data for credit scoring as the use of certain data attributes might be prohibited. Some of the alternative data sources such as social media are susceptible to inaccuracies as it might be difficult to authenticate the identity of the account owner. In emerging markets, the use of alternative data is also hampered by the low levels of digitization. Government and private sector services such as company registries and tax filing are not digitized resulting in vast amounts of potential alternative data being not captured.

The adoption of alternative data for financial and other sensitive decisions also brings to the fore additional risks that should be mitigated in a manner that ensures the expanded and sustained use of alternative data responsibly. Key risks include data inaccuracies; the use of data that is based on uninformed consumer consent; potential for discrimination; and heightened exposure to cyber risks. Some categories of alternative data such as social media

data end up being used by CRSPs without the data subject’s consent thus exposing the firms to potential legal risks. Social media data is usually not originally collected and consented to be used for credit reporting purposes. The use of alternative data is also susceptible to risk of discrimination as some of the data attributes that are collected including race, color, sex and marital can result in discriminatory scoring practices, if unmonitored. Finally, as the credit reporting ecosystem expands to include the new players such as alternative lenders and other data providers, the risk of cyber threats increases.

Against this background, this Policy Guide provides practical policy recommendations on how countries can adopt and leverage the use of alternative data for credit reporting, while mitigating the risk inherent in the use of such data. The matrix below provides a list of impediments and the ICCR policy recommendations.

Policy topic	Impediments for financial inclusion	Main recommended actions for policymakers
<b>1. Improving the Availability and Accuracy of Information</b>	Lack of clarity on alternative data and how this data should be treated	1. Regulators and policy makers should issue guidance on how alternative data may be sourced and processed.
	Absence of a unique identifier (ID, Passport, financial ID, etc.) that links data collected from various sources to a particular individual or MSME	2. Policy makers and regulators should consider implementing the following options as unique identifiers: <ul style="list-style-type: none"> <li>• Passport/ ID for individuals or smaller MSMEs.</li> <li>• ID alternatives such as social security numbers, tax identification number or Financial Numbers generated by regulators/ financial institutions, Passport/ID of the owners of the unregistered MSMEs.</li> <li>• Company/ Legal Entity Identification (LEI) number for larger MSMEs.</li> </ul> 3. Regulators should, to the extent possible, provide access to National

		ID databases for validation purposes.
	Lack of digitized public information	4. Policy makers should ensure that data managed by governmental agencies, is digitized and, where appropriate, shared in an efficient and cost-effective manner with CRSPs.
	Unavailability or poor data quality	5. Policy makers should promote the development and provision of access to Open Data Systems and Standards for MSMEs. 6. In cases where applicable, regulators/policy makers should promote automation of data collection and processing.
	Lack of digital footprint of MSMEs transactions	7. Policy makers should promote use of digital platforms through consumer awareness, digital financial literacy and offering incentives to MSMEs, lenders and consumers. 8. Policy makers should promote digitization of services of relevant governmental agencies such as tax filing and company registration to encourage digital records of MSMEs and individuals.
<b>2. Expanding Credit Information Sharing</b>	Limited coverage	9. Regulators should consider reviewing regulations to require all financial service providers, including non-bank financial institutions, to report credit data and other relevant information to CRSPs. 10. Regulators should promote open, fair and competitive credit information sharing by CRSPs. 11. In cases of inefficient markets,

		<p>policy makers should assess the feasibility of establishing a Credit Registry/Databank to promote information sharing.</p> <p>12. Policy makers/ regulators should explore the feasibility of regulating oversight on new credit reporting service providers.</p>
	High minimum loan size thresholds for business loan data in CRSPs	13. Policy makers should consider reducing or eliminating minimum thresholds for reporting financial commitments to CRSPs
<b>3. Enabling Responsible Cross Border Data Exchanges</b>	Differences in national laws and regulations on cross border data sharing	14. Policy makers and regulators should coordinate and collaborate at the international level (through standard setting bodies like BIS) to develop cross border data sharing standards and cross border information regulations.
	Inconsistent cross border data sharing and enforcement laws	15. Policy makers and regulators should work towards harmonization of data protection and privacy laws in relation to alternative data. In the absence of harmonized laws, policy makers should consider adopting laws that allow for the export of personal data to other jurisdictions only on condition that either the jurisdiction where the data is to be exported has an adequate level of data protection laws in place or other instruments such as standard contractual clauses or binding corporate rules that can compensate for the lack of a legal framework in the importing country.
	Lack of harmonized core set of data	16. Policy makers should, at the domestic and international level,

	attributes collected by CRSPs makes it difficult to compare applicants across jurisdictions.	agree or encourage adoption of a harmonized core set of data attributes to be shared domestically and across borders
	Lack of ability to identify MSMEs in different jurisdictions due to inconsistent and/or non-standardized identification system.	17. Policy makers should assess the feasibility of implementing the G20 Global Legal Entity Identifier or its variant for individuals such as ID4D in order to address cross-border usage and sharing of data.
<b>4. Balancing Integrity, Innovation and Competition</b>	Regulatory barriers to innovation	18. Policy makers and regulators should collaborate on the development of principles of responsible innovation.
		19. Policy makers and regulators should assess the feasibility of implementing or utilizing regulatory innovation tools such as innovation hubs or sandboxes.
<b>5. Data Privacy, Consumer Protection and Cyber Security</b>	<ul style="list-style-type: none"> <li>• Inadequate data privacy laws</li> <li>• Inadequate transparency and disclosure regimes</li> <li>• Potential for alternative data usage that results in unacceptable forms of discrimination</li> <li>• Restrictive or lack of adequate consent laws/regulations</li> <li>• Growth in cyber risks and potential impacts on global financial systems</li> </ul>	<p>20. Policy makers should ensure:</p> <ul style="list-style-type: none"> <li>• Alternative data should be collected and processed lawfully;</li> <li>• cost efficient consent mechanisms, where necessary;</li> <li>• accuracy and reliability of alternative data;</li> <li>• consumers access and ability to correct their information as well as request the deletion of data, where appropriate. Consumers should also be able to object to the processing of their information and should be accorded an opportunity to transfer their data to any other service provider;</li> <li>• cybersecurity risk assessments are</li> </ul>

		<p>embedded into the overall risk management policies and procedures of industry participants.</p> <ul style="list-style-type: none"> <li>• the use alternative data does not unfairly discriminate against protected groups and that participants should adopt measures to ensure that predictiveness of alternative data is tested and verified; and</li> <li>• industry participants implement clear processes that guarantee consumers receive all the relevant information of the data collection.</li> </ul>
<p><b>6. Maintaining Pricing Transparency</b></p>	<p>Lack of risk-based pricing</p>	<p>21. Policy makers should ensure that lenders adopt risk based pricing methodologies for borrowers to benefit from lower lending costs</p>

## I. INTRODUCTION AND BACKGROUND

### Background

1. The G20 recognizes that **Micro, Small and Medium Enterprises (MSMEs) play a major role in economic development, particularly in emerging countries.** Studies indicate that formal SMEs contribute up to 45 percent of employment and up to 33 percent of GDP in developing economies<sup>2</sup>. These numbers are significantly higher when taking into account the estimated contributions of MSMEs operating in the informal sector. The informal sector presents one of the greatest challenges in the MSME space, with issues that go well beyond finance.
2. **Promoting MSMEs development is an important priority in the context of the international development agenda and given the critical importance of job creation following the latest financial crisis.** Of the estimated 365-445 million MSMEs in emerging markets, only 162 million are formal enterprises<sup>3</sup>.
3. **Access to finance remains a key constraint to MSMEs development in emerging economies.** According to the MSME Finance Gap (2017), there are 20.75 million formal SMEs in developing countries, of which an estimated 44 percent do not have access to formal institutional loans or overdrafts despite a need for one. The estimated financing gap for formal SMEs is \$4.52 trillion annually. The finance gap is far bigger when considering the SMEs in the informal sector. The estimated potential demand for SMEs in the informal sector stands at \$2.52 trillion annually<sup>4</sup>. The proportional size of the finance gap (as a percentage of GDP) varies widely across regions and is particularly daunting in Sub-Saharan Africa and South Asia.
4. **Lack of credit data is often cited as one of the major obstacles to MSMEs financing in developing countries<sup>5</sup>.** This problem is heightened for economic agents operating in informal sectors since most of their business is cash transactions which in most instances go unrecorded due to lack of financial awareness. In most developing countries, the entrepreneurs behind the MSMEs, especially those operating in informal markets, tend to have no or thin credit files which affects their ability to access personal credit from formal financial institutions.
5. **The lack of sufficient and/or of high quality data and other credit-related information for decision-making also limits access to finance for micro, small and medium-size enterprises (MSMEs) – and especially for those operating in some level of informality.** Most MSMEs do not have accounting packages to record their transactions and generate credible financial statements and projections. Very often, the only standard information that is available to assess their creditworthiness is the personal credit file or paper-based records of the entrepreneur which is expensive to access and process and limited in scale.

6. **In a digital age, businesses are getting access to large volumes of structured and unstructured data, which can be used for decision making, on a daily basis.** It is estimated that the world's stock of digital data will double every two years through 2020, fueled by the phenomenal intersection of and growth in mobile, big data, and electronic payments.<sup>6</sup>
7. **The financial system already generates digitized data that is considered as alternative data.** Such information includes mobile and online banking transactions, digital payments, and automated utility payments.
8. **In many instances, alternative data is being created outside the financial system.** Every time MSMEs and their customers use cloud-based services, browse the internet, use their mobile phones, engage in social media, use ecommerce platforms, ship packages, or manage their receivables, payables, and recordkeeping online, they create digital footprints. Data collected through mobile phones and telecommunications (e.g. call records, airtime top ups, P2P, G2P and P2G payment transactions) are also exponentially increasing data trails including for low income consumers in developing and emerging markets.
9. **Traditional and non-traditional lenders have an option to mine this real-time and use it for credit granting decision making.** Lenders can use the alternative data to determine capacity and willingness to repay loans.
10. **Using alternative data to enhance credit reporting<sup>7</sup> thus represents a large opportunity to expand access to finance to individuals and MSMEs.** Lenders may leverage alternative data, such as information from utilities or retail lending, behavioral data, online platform and mobile applications to reach new customer segments including micro and small enterprises. Beyond being used to provide access to credit, alternative data may offer valuable granularity on customer preferences and behaviors that can help to design new financial products and services, encourage positive financial behaviors and support the real sector by linking financing to energy, commerce, health or other sectors.
11. **Notwithstanding the benefits, the use of new types of alternative data for financial and other sensitive decisions brings to the fore additional risks.** Resultantly, authorities should balance promoting the benefits of the expanded use of alternative data while ensuring that inherent risks are managed. While beneficial, alternative data might come from unreliable sources and might not be of the desired quality (inconsistency, incompleteness) resulting in financial exclusion of data subjects.

12. **The G20 High Level Principles on Digital Financial Inclusion recognize the role that the use of alternative data for credit reporting can play in promoting access to credit for individuals and MSMEs in the informal sector.** Against this background, the objective of this paper is not to direct adoption of prescriptive legislative provisions but to provide guidance for countries to use in considering adoption and use of alternative data to enhance credit reporting.

#### **Selection criteria of topics and policies**

13. This Policy Guide brings together evidence and consensus-based policy recommendations and guidance that can be used to support four policy areas that are deemed important to promote the use of alternative data to enhance credit reporting. The policy areas are:
- i. IMPROVING AVAILABILITY AND ACCURACY OF INFORMATION;
  - ii. EXPANDING CREDIT INFORMATION SHARING;
  - iii. ENABLING CROSS BORDER DATA EXCHANGES; AND
  - iv. BALANCING INTEGRITY, INNOVATION AND COMPETITION.
14. In order to ensure completeness of the guide, this report also considered policies related to Data Privacy, Consumer Protection and Cyber security, in so far as they relate to the use of alternative data for credit reporting issues. The policy areas were defined as:
- v. PRESERVING DATA PRIVACY AND CONSUMER PROTECTION;
  - vi. BALANCING OPT-IN AND OPT OUT MODELS;
  - vii. SAFEGUARDING CYBER SECURITY AND DATA INTEGRITY; AND
  - viii. MAINTAINING PRICING TRANSPARENCY.
15. For policies (v) to (vii); this report adopted the policy proposals advanced in the GPMI Financial Consumer Protection Law (FCPL) Sub-Group Discussion Paper on Data Protection and Privacy for Alternative Data.

#### **Organization of the Policy Guide**

16. The rest of the document is organized as follows; Section 2 includes a discussion on the definition, categories and sources of alternative data and Section 3 covers the challenges, impediments and policy opportunities to using alternative data and the policy proposals. Finally, section 4 provides some conclusions and recommendations. In this Policy Guide, policies are organized into the eight policy areas highlighted above. The Policy Guide contains key content and guidelines for relevant policies within each topic area.

## II. DEFINITIONS, CATEGORIES AND DATA SOURCES OF ALTERNATIVE DATA

### Definition

17. Although it is generally agreed that the term “alternative data” can be used interchangeably with “non-traditional data”<sup>8</sup>, there has been no consensus on the single definition of **alternative data**. Most definitions take a descriptive rather than normative approach to defining alternative data.  
The CFPB, on the other hand, define alternative data as “any data that are not traditional”<sup>9</sup>.
18. Lexis delineates alternative data to include information that is not found on traditional credit reports and this includes public records, business associations, professional licenses, education and address history<sup>10</sup>.
19. Oliver Wyman definition of alternative data introduces two dimensions that is, financial information and predictive power. They defined alternative data as providing “... additional financial payment information on consumers or otherwise information with predictive power.” Such information includes utility, telecommunication, rentals, asset records, alternative lending payments and demand deposit account information.<sup>11</sup>
20. The GPMI Priorities Paper 2018 defines alternative data as, “A generic term that designates the massive volume of data that is generated by the increasing use of digital tools and information systems.”
21. **For the purposes of credit reporting, the ICCR, views alternative data as merely serving to describe ways to collect and analyze data on creditworthiness, which are “alternative” to conventional methods such as documented credit history<sup>12</sup>.** Alternative data is also considered to be information readily available in digitized form that is collected through technological/electronic platforms.
22. **The definition of alternative data is expected to continue to evolve as more work on the area comes to the fore.** Notwithstanding, it is important to highlight that the definition of alternative data will remain country specific and dependent on the kind of credit information that CRSPs in these jurisdictions are currently collecting. As a result, what is alternative in one market can be traditional in another.

### Categories of alternative data

23. **The GPMI identified two main categories of alternative data; namely structured and unstructured data.**

***Structured Data***

24. Structured data is defined as “information with a high degree of organization, such that inclusion in a relational database is seamless and readily searchable by simple, straightforward search-engine algorithms or other search operations.” Structured alternative data<sup>13</sup> could include for example:

- Reporting of data on payments (e.g. utilities, mobile phone, and certain other obligations like rental information, taxes, etc.).
- Data on crowdfunding transactions, factoring, leasing and credit insurance.
- Data on transactions from P2P lending platforms, invoice, accounts payable, sales volume, merchant transactional data, mobile/e-money transactions, procurement data, historical business cash flows, shipping history, bills of lading, and data from online accounting platforms.
- Reporting of relevant data associated to assets (movables and fixed).
- Reporting of data on other payment flows received by disadvantaged individuals (e.g., subsidies, pensions, domestic and cross-border remittances, etc.) when appropriate.

***Unstructured data***

25. Unstructured data is defined as “information that either does not have a pre-defined data model and/or is not organized in a predefined manner.”<sup>14</sup> Unstructured data include, but not limited to:

- Social media and internet usage
- Emails
- Text and messaging files
- Audio files
- Digital pictures and images
- GPS data
- Mobile usage (how many calls to the same number, peak usage, etc.)
- Other meta data
- Psychographic, psychometric and other non-financial behavioral data

26. **Alternative data that is structured and focuses on transactional and other information that demonstrate the “ability to repay” debt is usually the most useful.** Notwithstanding, unstructured data can be more useful in cases of first time borrowers with no or thin credit histories and to complement credit histories of more established MSMEs.

**Sources of alternative data**

27. **The adoption of digital platforms and technologies** by individuals and businesses alike have increased the sources of non-traditional data. Every time individuals, MSMEs and their customers use cloud-based services, conduct banking transactions, make or accept digital payments, browse the internet, use their mobile phones, engage in social media, buy or sell electronically, ship packages, or manage their receivables, payables, and recordkeeping online, they create digital footprints.
28. This real-time and verified data can be mined to determine both capacity and willingness to repay loans. A rapidly growing crop of fintech lenders are putting the use of MSMEs digital data, customer needs, and advanced analytics at the center of their business models, adding an additional source of alternative data.
29. Alternative data sources should provide credible information, if it is to be relied upon. There are generally accepted characteristics<sup>15</sup> of good sources of alternative data:
- Coverage: the data source must cover a broad proportion of the population and must be consistent to enable comparability
  - Regulatory compliance: data sources should comply with existing regulations for credit data sharing
  - Predictive power: the data must be able to predict repayment behavior
  - Orthogonality: the sources should provide information that enriches already existing traditional data
  - Accuracy and timeliness: the source should provide data whose accuracy can be validated and the data should be frequently updated
  - Depth of information: a data source should provide detailed data elements about an individual

### III. CHALLENGES, IMPEDIMENTS AND POLICY OPPORTUNITIES

30. **The adoption of alternative data can help promote the inclusion** of individuals and MSMEs with no or thin credit files into the mainstream credit markets
31. **Notwithstanding the potential benefits, there is need to address the impediments that can curtail the use of alternative data for credit reporting.** It is important to ensure that the use of alternative data will preserve the accuracy, quality and completeness of credit reporting data.
32. In line with globalization, there is need to ensure mobility of data across borders, balance innovation and stability and protect the right of consumers. In addition, the use of alternative data should ensure that the credit reporting ecosystem is not exposed to additional vulnerabilities.

#### 3.1 ADOPTION OF ALTERNATIVE DATA FOR CREDIT REPORTING

33. The use of alternative data presents new sets of risks and challenges that should be mitigated for the world to fully benefit. The risks and challenges associated with the use of alternative data include business practice, data privacy and consumer protection issues.<sup>16</sup> The explanation box below captures some of risks associated with the use of alternative data.

**Box 1: Challenges associated with alternative data**

1. Noncompliance with credit laws and regulations
2. Difficulties in verifying identification
3. Multiple fragmented data sources which are difficult to collect and aggregate
4. Inaccurate or incomplete information
5. Minimum thresholds are set at levels to lower collection and submission costs, which tend to leave out MSMEs and individuals in the informal sector.
6. Unintended side effects such as potential for discrimination
7. Opaqueness of scoring methodologies

34. The adoption of digital solutions such as distributed ledger (blockchain) technology can contribute to addressing some of the inefficiencies associated with ID verification, data ownership and security.

35. In order to ensure effective and responsible use of alternative data and standardization of approaches within countries, there is need for policy makers to provide guidance, and in certain case reform their laws and regulations.

### **POLICY RECOMMENDATION 1: GUIDANCE ON THE USE OF ALTERNATIVE DATA**

*Regulators and policy makers should introduce/ amend laws and regulations to clarify how alternative data may be sourced and processed, taking into consideration privacy and data protection international standards. Some examples that can be useful alternative data sources include:*

- *Reporting of data on payments made by individuals and MSMEs (e.g. utilities, mobile phone, and certain other obligations like rental information, taxes, tuition, etc.).*
- *Data on crowdfunding transactions, factoring, franchise history, leasing and credit insurance.*
- *Data on transactions from P2P lending platforms, e-commerce providers, invoice, accounts receivable and payable, and procurement data, historical business cash flows, shipping history, bills of lading, economic indicators, taxes paid.<sup>17</sup>*
- *Reporting of relevant data associated to assets (movables and fixed) that belong to disadvantaged individuals and MSMEs.*
- *Reporting of data on other payment flows received by disadvantaged individuals (e.g., subsidies, pensions, domestic and cross-border remittances, etc.) when appropriate.*

## **3.2 IMPROVING AVAILABILITY AND ACCURACY OF INFORMATION**

36. **In the era of Big Data, policy makers should ensure the accuracy of data remains sacrosanct, if CRSPs are to effectively leverage alternative data to promote access to credit for MSMEs and individuals.** General Principle 1 of the General Principles for Credit Reporting<sup>18</sup> (herein the “General Principles”) highlights that credit reporting systems should have relevant, accurate, timely and sufficient data. Implementing such a principle, is however more complex when data is obtained from a wide variety of sources, as data accuracy and reliability may be harder to check. One way of increasing data accuracy is by ensuring that data subjects’ access, rectification, correction and opposition (ARCO) rights are safeguarded.
37. According to the World Bank<sup>19</sup>, new types of data coming from multiple sources are generally used to assess creditworthiness when financial information about the borrower is absent either because the individual or MSME is borrowing for the first time or when the credit information system is not developed.

### 3.1.1 Aggregation and Accuracy of Data

38. **One of the inherent challenges that arises from having multiple data sources is the need to link and aggregate data collected from various sources to a particular individual or MSMEs.** To be able to link and aggregate data of MSMEs and individuals from various sources, **there is a need for unique identifiers that unequivocally identify individuals and MSMEs at reasonable cost.** Some countries do not have National ID systems that can uniquely identify an individual. Failure to uniquely identify data subjects can result in inaccurate, unreliable and incomplete information.
39. The inherent risk with using inaccurate, unreliable and incomplete data is that the score/ credit worthiness assessment may be erroneous, leading to potential risks of exclusion if the error results in the underestimation of the ability of the borrower to repay, or of potential risks of over indebtedness if the error is in overestimating the capacity of the borrower to repay.

#### **POLICY RECOMMENDATION 2: UNIQUE IDENTIFIERS**

*To ensure accuracy of alternative data, policy makers and regulators should implement a unique identifier that unequivocally identify data subjects. Policy makers should consider the following options as unique identifiers:*

- *For jurisdictions with efficient and consistent **National Identification (ID) systems**, policy makers should make use of the IDs to **identify** smaller MSMEs (as well as individuals),*
- *In instances where the National IDs do not exist, policy makers should consider the use of **alternatives** such as social security agencies, tax numbers or consider working with financial regulators/ credit registries/ banking institution to establish Financial (Bank) Identification Numbers. In the long run, policy makers in these jurisdictions should consider implementation of a consistent identification framework like the G20 Legal Entity Identifier (LEI).*
- *For larger and established MSMEs, policy makers and regulators can examine the potential for establishing a **Company Registration framework or make use of the LEI provided by the G20 Global Legal Entity Identifier System (GLEIS)** in order to connect data from different sources (e.g. credit reporting, financial statements, payment systems) to improve accuracy of linked data.<sup>20</sup>*

### **POLICY RECOMMENDATION 3: VALIDATION OF UNIQUE IDENTIFIERS**

*Relevant public-sector agencies in their role as other data sources, specifically to the extent they provide identification services, should provide access to national ID databases for validation purposes.*

#### **3.1.2 Availability and Quality of Data**

40. **Across the globe, Governments store and manage data that can be used by CRSPs to enrich the information available for credit worthiness assessment, yet in some developing and emerging countries that data or most of it is not shared.** Most government agencies in these economies keep the data within their systems, while releasing a controlled amount of information to individuals and other stakeholders for research or other purposes. This has resulted in CRSPs duplicating the collection of that data through inefficient and costly methods. More often than not the costs are passed on to consumers and translate to high cost of credit.
41. In developed economies, most Governments have implemented the policy of making data available publicly to the community as part of Open Government Partnerships initiatives based on the realization of the economic value of sharing this data. Other initiatives such as the PSD2<sup>21</sup> can be used to indirectly create an open data environment for financial services.

#### **Box 2: Open Data System and PSD2**

Open data systems are platforms where some data is freely available to everyone to use and republish as they wish, without restrictions from copyright, patents or other mechanisms of control. Open data systems can either be private or government initiated. Some examples of open-data initiatives include [Data.gov](https://data.gov), [Data.gov.uk](https://data.gov.uk) and [Data.gov.in](https://data.gov.in) and open banking.

Open banking is when banking data is shared between two or more unaffiliated parties, through APIs, to deliver enhanced capabilities to the marketplace. Open banking is one of the drivers behind the EU's Revised Payment Service Directive (PSD2), which requires financial institutions in the E.U. to release customer data to authorized third parties using open and standardized applied programming interfaces (APIs). This approach to open APIs will allow banks and non-bank lenders to obtain transactional data and liquidity information in order to provide a very dynamic view of creditworthiness. Some providers, such as bonify.de in Germany, are using transactional data (debit and credit movements on accounts, liquidity levels and historical changes) to create a creditworthiness score which is quite different from the static approach of the past. Instead of looking at long term statistical means they maintain an always up-to-date score based on both historical and current transactional data.

Notwithstanding its benefits, open data system introduces new challenges in the form of cybersecurity, potential for fraud, and data privacy and protection issues. There is therefore a need to consider various prerequisites. To address these issues, PSD2 also includes rules to improve security measures through two-factor authentication as well as data protection and privacy including provisions ensuring informed consent requirements for consumers.

The reliability of open data platforms is dependent on the quality and timeliness of the data that is collected and stored on these platforms. There is thus a need to ensure that the process of collecting and processing data enhances the quality of the data that is stored.

#### **POLICY RECOMMENDATION 4: DIGITIZING GOVERNMENT DATA MANAGEMENT SERVICES**

*Policy makers should ensure that data managed by governmental agencies, is digitized and, where appropriate, shared in an efficient and cost-effective manner with CRSPs. This includes but is not limited to ID datasets, corporate registries, court of law data and collateral registries.*

#### **POLICY RECOMMENDATION 5: OPEN DATA SYSTEMS AND STANDARDS**

*Policy makers should explore the option of developing an Open Data System and Data Standards for MSME data (including corporate, financial, banking and other relevant alternative data).*

#### **POLICY RECOMMENDATION 6: AUTOMATION**

*Policy makers/ regulators should promote automation in data collection, processing and ensuring data is properly updated and able to be accessed.*

### **3.1.3 Comprehensive and Granular Coverage of Alternative Data**

42. **Most of the individuals and MSMEs operating in the informal sector do not have sufficient credit related information as the bulk of their financial and economic transactions are not recorded digitally.** In instances where that information is recorded, the cost of CRSPs to extract and process it is expensive and often end up being passed to consumers in form of high fees thus impact on access to credit.
43. **The lack of sufficient quality data and other credit-related information for decision-making also limits access to finance for micro, small and medium-size enterprises (MSMEs) – and especially for those operating in some level of informality.** Most MSMEs' operations, such as sales, purchases and accounting processes, are not automated which affects their ability to generate credible financial statements and projections. Very often, the only standard information that is available to assess their creditworthiness is the personal credit file or history of owners or operators of business.
44. **By adopting digital platforms, individuals and MSMEs, in the informal sector, will leave a digital footprint.** The digital footprint will promote access to more comprehensive and granular digitized transactional data which can be processed by CRSPs as well as other service to improve access to credit.

## **POLICY RECOMMENDATION 7: PROMOTE DIGITAL FOOTPRINT**

*Policy makers and regulators should promote MSMEs to use as much as possible digital services<sup>22</sup> to run their businesses since these services leave a digital record that can be accessed and combined with other information to be analyzed for creditworthiness.*

- Policy makers/regulators should consider offering financial and non-financial incentives<sup>23</sup> to credit providers, MSMEs and consumers as a way of promoting use of digital platforms. It is important to note that research is still building on the effectiveness of incentives.*
- Policy makers/regulators should consider digital financial literacy and consumer awareness campaigns educating individuals and MSMEs on the benefits, challenges and safeguards associated with using digital platforms*

### **Box 3: Incentivizing Digital Payments: Experiences in Colombia, India, South Korea**

There are several examples of countries that have utilized financial and non-financial incentives to promote digital payments. Three cases are discussed hereunder.

#### **South Korea**

In the 1990s, South Korean government introduced tax incentive schemes to promote digital payments. Tax rebates were offered if more than 25% of an individual or entity's annual income was spent through credit or debit cards. Resultantly, credit card transactions grew from 4.9% in 1999 of the country's GDP to 34.3% in 2002.

#### **Colombia**

The government led the way by transacting primarily through electronic payments. Approximately 69 percent of the value of money changing hands in Colombia each month is paid electronically, of which 94% is by the government. The country is now a "cash-lite" economy with government and business bulk payers in Colombia shifting to electronic means of payment. To support this shift, Colombia passed a law in 2017 that provides a tax benefit to small merchants earning less than USD \$38,000 per year for all revenue captured by a POS terminal.

#### **India**

In a move that will encourage small shops to accept electronic payments, the government of India has decided to bear the charges merchants pay to banks on purchases of up to Rs 2,000 using a debit card, Bhim or Aadhaar. The subsidy will be available for a period of two years starting from January 1, 2018.

These examples offer several insights and lessons learned for other countries including:

- 1) The important role of government to lead the way in providing the right enabling environment as well as incentives
- 2) The important role that the private sector should play in creating digital payment infrastructure
- 3) Government and private sector need to work together to have a coherent public-private strategy to shift toward inclusive digital finance

## **POLICY RECOMMENDATION 8: DIGITIZE GOVERNMENT SERVICES**

*Policy makers should also encourage government agencies to digitize government services, such as tax filing, company registration and other government services, to encourage a digital footprint for MSMEs and individuals. Once digitized that information should be made available, as much as is possible, for public use.*

### **3.2 EXPANDING CREDIT INFORMATION SHARING**

#### **3.2.1 Comprehensive Data Coverage**

45. **In the digital age, a significant amount of data that is relevant for evaluating the creditworthiness of borrowers is not collected by CRSPs.** In some jurisdictions, alternative lenders or other non-financial entities that generate digital credit data are not required to share their data. As a result, there are vast amounts of data that would promote access to credit for MSMEs and individuals that are currently not being captured by CRSPs. There is a need to expand credit information sharing if economies are to benefit from a broader set of digital data which is now available and is relevant.
46. **The role of the CRSPs may change going forward, starting by the way the information is collected by them.** Traditionally the CRSPs, especially credit bureaus, have relied on data providers to put together the information in specific formats, applying validation rules to minimize errors and using pre-defined “scripts” to upload the data into their databases. More recently, bureaus are developing new credit scoring models based on applications that extract the information directly from its source including digitized data that was not available before. With this opportunity comes more responsibilities as well as challenges.
47. **The amount of data collected has also been limited by minimum thresholds that has been set for reporting credits/debtors.** In certain instances, the minimum thresholds are set at the levels which might be too high for individuals and MSMEs. This results in these data subject being unable to build credit history thus impacting on their ability to access credit.
48. **In markets with inefficiencies, there is inadequate credit information sharing with and between CRSPs.** In certain jurisdictions the absence of regulations that compels credit providers to share information has resulted in some data providers not sharing information and in the cases, when they do, the information is not frequently updated. In those markets, the failure to share credit data has resulted in incomplete data that may lead to erroneous credit decisions and impact negatively the performance of credit portfolio.

**POLICY RECOMMENDATION 9: LEGISLATIVE REFORMS**

*Policy makers/ regulators should consider reviewing their legal frameworks to require all financial service and credit providers; including non-bank financial institutions and payment firm, that are not regulated by a financial authority, and utility companies to report credit data and other relevant information to CRSPs in their jurisdictions.*

**POLICY RECOMMENDATION 10: PROMOTING INFORMATION SHARING**

*Regulators should promote open, fair and competitive credit information sharing between and with CRSPs.*

**POLICY RECOMMENDATION 11: ESTABLISHMENT OF CREDIT REGISTRIES**

*In countries with credit market inefficiencies, policy makers should consider the feasibility of establishing a credit registry/databank to play the role of credit information aggregator and share this information with CRSPs.*

**POLICY RECOMMENDATION 12: REGULATORY OVERSIGHT ON NEW CREDIT REPORTING SERVICE PROVIDERS**

*In certain instances, the regulatory oversight role of financial authorities over new credit reporting service providers such as fintech lenders and payment systems could be elaborated further to accommodate for the use of alternative data for assessing the capability of the MSMEs to get a loan.*

**POLICY RECOMMENDATION 13: MINIMUM THRESHOLDS**

*Policy makers/ regulators should explore the possibility to reduce or eliminate minimum thresholds<sup>24</sup> for reporting financial commitments to CRSPs to promote the capturing of as much data as possible. The submission requirements and processes should be streamlined, as*

#### **Box 4: Lowering or Eliminating Minimum Thresholds**

Where thresholds for the loans included in a credit bureau's database are high, retail and small business loans are more likely to be excluded. This can hurt those that benefit the most from credit reporting systems—such as female entrepreneurs and small enterprises, whose loans are typically smaller. Therefore, credit bureaus and credit registries that collect and distribute microfinance data are more likely to benefit female entrepreneurship by building credit histories for women. Credit registries usually set relatively high thresholds for loans, since their primary purpose is to support bank supervision and the monitoring of systemic risks. Credit bureaus tend to have lower minimum loan thresholds.

Indonesia, Tunisia, and West Bank and Gaza eliminated their loan thresholds in 2008. Azerbaijan eliminated 3 thresholds in 2009: 1,000 manat (\$1,314) for individuals, 5,000 manat (\$6,572) for firms and 10,000 manat (\$13,144) for credit cards. This action was spurred by the rapid growth in consumer loans, which had led banks to request more detailed information on a larger group of borrowers. In 2010, Mongolia's credit registry eliminated the minimum threshold for loans included in its database. As a result, the registry's coverage doubled after just 1 year. In Brazil, the threshold of the central bank's credit registry has been reduced starting with BRL50,000 (1997) and decreasing to BRL5,000 (2002) and BRL1,000 (2012). More recently, in 2016, the threshold was reduced to BRL200 (USD50). These reductions increased the level of identification of debtors and loans from 60% to 99% of the total credit volume granted by the financial system. The Central Bank of Cyprus adopted a directive in December 2013 eliminating the minimum threshold for loans to be included in credit bureaus' databases. As a result, loans of all sizes are now included in the database of the credit bureau Artemis Bank Information Systems.

*much as possible, to to reduce costs*

### **3.3 ENABLING RESPONSIBLE CROSS BORDER DATA EXCHANGES**

49. The GPMI Alternative Data for MSME Finance document talks about several examples where cross-border takes place through partnerships. Like any cross-border activity, international cooperation is essential to ensure effective implementation and equal treatment. Some national regulators have put in place cooperative arrangements to promote innovation and share information about financial services. At the multilateral level, international standard setters such as the International Organization of Securities Commissions, Basel Committee on Banking Supervision and Committee on Payments and Market Infrastructures as well as the Financial Stability Board, are monitoring and studying the implications of technological change for financial stability, market integrity, efficiency, and consumer protection.
50. **In addition to general challenges associated with cross border flow identified in General Principle 5 of the General Principles, movement of alternative data across borders is complicated by differences in various national laws and regulation<sup>25</sup>.** The regulatory treatment of some data categories such as personal data is not consistent across countries. **In**

some countries there are regulations relating to handling personal data and in certain instances these rules prohibit the sharing of information across borders.

51. **Given the international flow of data, it is likely that enforcement regimes and customer-recourse systems will not be clear, particularly in developing countries and in cases where alternative data is held in the cloud and/or is based on unstructured data.**<sup>26</sup>

Further consideration could be given to this aspect, as it involves the need for a harmonized international approach to consumers' rights, dispute-resolution mechanisms, accountability for data errors, and data-security measures.

52. **Another challenge associated with sharing MSMEs information across border is the absence of unique identifier that can link the credit information of the MSMEs across borders.** Failure to identify businesses across borders will affect the ability of CRSPs to accurately aggregate MSMEs global exposures. In addition, it will affect the ability of MSMEs to access offshore funding and trade credit from their global suppliers. The use of the globally unique Legal Entity Identifier (LEI) would support to unambiguously identifying MSMEs also cross-border.

53. **There are differences in the specific data that CRSPs in different countries collect on both individual and MSMEs borrowers thus making it difficult to aggregate or draw comparisons on applicant's data across borders.** The data variables that CRSPs collect across border are not standardized and this will become worse with the adoption of alternative data. In the absence of a defined core set of variables comparing and aggregating credit information of applicants using information from across borders might be difficult.

#### **POLICY RECOMMENDATION 14: COLLABORATION**

*There is a need for further collaboration at the international level (with standard setting bodies like the BIS Task Force on Data Sharing) to improve the comparability and consistency of MSMEs credit data that is shared across borders.*

##### **Box 5: APEC CROSSBORDER CREDIT INFORMATION SHARING**

The IFC and BIIA were invited by APEC Business Advisory Council to conduct a pilot on the cross-border access of SME/MSME credit information involving some CRSPs from five jurisdictions, Thailand, Cambodia, Lao, Vietnam and China, as part of the implementation of the credit information system elements of the APEC Financial Infrastructure Development Network (FIND). Efforts are currently underway to create a regional data dictionary to enable easier interpretation of cross border credit reports. These efforts will also include identification of any data element (such as gender) that might be prohibited from being reported within a particular jurisdiction but which are commonly reported in other jurisdictions.

## **POLICY RECOMMENDATION 15: HARMONIZATION OF DATA LAWS**

*Policy makers and regulators should work towards harmonization of data protection and privacy laws in relation to alternative data.*

## **POLICY RECOMMENDATION 16: HARMONIZATION OF DATA ATTRIBUTES**

*There is need to encourage, at the domestic and international level, on a harmonized core set of data attributes to be shared domestically and across borders on MSMEs covering both financial data and credit performance aspects.*

## **POLICY RECOMMENDATION 17: GLOBAL LEGAL IDENTIFIERS**

*Policy makers should assess the feasibility of implementing the Global Legal Entity Identifier<sup>27</sup> or its variant such as Identification for Development (ID4D), for individuals, to address cross-border usage and sharing of data.*

### **Box 7: Global Legal Entity Identifier (LEI)**

The Legal Entity Identifier (LEI) is a 20-digit, alpha-numeric code based on the ISO 17442 standard to uniquely identify distinct entities that engage in financial transactions in the broadest definition. It connects to key reference information that enables clear and unique identification of legal entities participating in financial transactions. Simply put, the publicly available LEI data pool can be regarded as a global directory, which greatly enhances transparency in the global marketplace.

The Financial Stability Board (FSB) has reiterated that global LEI adoption underpins “multiple financial stability objectives” such as improved risk management in firms as well as better assessment of micro and macro prudential risks. As a result, it promotes market integrity while containing market abuse and financial fraud. Last but not least, LEI rollout “supports higher quality and accuracy of financial data overall”.

The publicly available LEI data pool is a unique key to standardized information on legal entities globally. The data is registered and regularly verified according to protocols and procedures established by the LEI Regulatory Oversight Committee. In cooperation with its partners in the Global LEI System, the Global Legal Entity Identifier Foundation (GLEIF) continues to focus on further optimizing the quality, reliability and usability of LEI data, empowering market participants to benefit from the wealth of information available with the LEI population.

The drivers of the LEI initiative, i.e. the Group of 20, the FSB and many regulators around the world, have emphasized the need to make the LEI a broad public good. The Global LEI Index, made available by GLEIF, greatly contributes to meeting this objective. It puts the complete LEI data at the disposal of any interested party, conveniently and free of charge.

The benefits for the wider business community to be generated with the Global LEI Index grow in line with the rate of LEI adoption. To maximize the benefits of entity identification across financial markets and beyond, firms are therefore encouraged to engage in the process and get their own LEI. Obtaining an LEI is easy. Registrants simply contact their preferred business partner from the list of LEI issuing organizations available on the GLEIF website.

### **3.4 BALANCING INTEGRITY, INNOVATION AND COMPETITION**

54. **In their financial stability roles regulators and public authorities often face the challenge of striking the right balance between promoting innovations and ensuring stability of markets.** As the use of alternative data expands, regulatory authorities should ensure that they do not stifle innovation while at the same time ensuring adequate data protection and attention to consumer privacy. This challenge is heightened by the fast pace of technological change and the limited knowledge of the actual risks and their consequences for consumers and markets. Too lenient standards could result in over-indebtedness and fraud, while too strict standards might curtail access to credit
55. The World Bank, the Committee on Payments and Market Infrastructure on Payment Aspects of Financial Inclusion (PAFI)<sup>28</sup> and the G20 High Level Principles for Digital Financial Inclusion, highlights the need to balance innovation and competition in the financial services marketplace. Preserving integrity of the financial system while encouraging access to shared information is a challenge for regulators and policymakers.
56. In addition, there is insufficient regional or global information about the status of commercial credit reporting providers, how they may be serving MSME credit providers and the credit market more broadly. In many cases, this information is not available even at the domestic level. Statistics and detailed information on the various features of commercial credit reporting and current practices around the world could no doubt be useful to all CRS participants.

#### ***POLICY RECOMMENDATION 18: RESPONSIBLE INNOVATION***

***Policy makers and regulators should collaborate on the development of principles of responsible innovation.*** Such collaborations can take the form of task forces which are composed of both public and private sector players. At a global level, authorities should participate in global surveys or similar tools to be performed periodically to obtain detailed, comprehensive and systematic information about credit reporting activities.

### **POLICY RECOMMENDATION 19: REGULATORY INNOVATION TOOLS**

*Policy makers and regulators should consider the feasibility of implementing/ utilizing regulatory tools for enabling innovation, such as hubs and sandboxes, to promote alternative data centric innovations, including alternative scoring techniques, in their markets.* The framework should consider country specific context and the market dynamics.

#### **3.5 DATA PRIVACY, CYBER SECURITY AND CONSUMER PROTECTION**

57. **Notwithstanding the many benefits of alternative data, its use raises some significant data privacy, and consumer protection issues around** disclosure of confidential information to third parties, transparency, and discrimination. As per the General Principles, credit reporting systems should be safe and efficient and supportive of data subject and consumer rights.
58. **In addition, the adoption of new technologies and incorporation of new players to the credit-reporting ecosystem introduces new sources of vulnerability to system security.** Some common threats to data security include cyber-attacks from outsiders, improper data use by employees of service providers and/or from the users, accidental disclosure of data, accidental loss of data, and natural disasters, among others.
59. **Inadequate data protection practices, standards and rules can result in consumers experiencing financial harm, loss of privacy and loss of trust in the financial system.**
60. **Many of the new financial service providers and/or fintech players may not have sufficient resources to invest in robust system security standards and data protection.** As such these institutions might find themselves at risk and might eventually become a source of vulnerability of the whole ecosystem. Some regulatory agencies such as the US Financial Industry Regulatory Authority (FINRA) have developed basic checklists for alternative lenders, especially new financial players and third-party providers who support alternative lending approaches. These include:
  - Identifying and assessing cybersecurity threats;
  - Protecting infrastructure and platforms from cyber intrusions;
  - Detecting a compromise or vulnerability;
  - Responding through a risk-based plan; and
  - Recovering and/or replacing lost data.
61. Since most alternative lenders, third party aggregators and data analytic providers also store, use or electronically transmit personal identification information (names, national IDs, social security numbers, dates of birth, addresses and other key personal data) or sensitive

information (financial records, account information, tax filings), additional steps should also be taken to protect privacy.

62. **In line with General Principle 2, there is an increasing need for rigorous standards of security to ensure that data are protected.** All participants in a credit reporting system should undertake best efforts to implement commercially reasonable data security safeguards to protect data against these and other potential threats.
63. Specific measures and safeguards should be adopted to cope with the logical, physical and organizational aspects of data security (i.e. so-called “tridimensional approach to data security”). The objective of these safeguards should be to contain, limit and respond to data security breaches. Measures and safeguards should be reviewed on a regular basis to ensure that they are up to date and effective against newly emerging threats.
64. **The increase in the use of alternative data for credit reporting and scoring, and the speed with which it is processed, create new concerns around data privacy and consumer protection.**

***POLICY RECOMMENDATION 20: DATA PRIVACY, CONSUMER PROTECTION AND CYBERSECURITY***

65. To address the impediments of data privacy, consumer protection and cyber risks associated with alternative data, this report adopts the policy proposals advanced in the GPMI Financial Consumer Protection Law (FCPL) Sub-Group Discussion Paper on Data Protection and Privacy for Alternative Data to the extent they relate to credit reporting issues.
66. The policy areas adopted related to the following policy areas, as defined in the scope of this work:
  - i. Preserving Data Privacy and Consumer Protection;
  - ii. Balancing Opt-In and Opt Out Models; and
  - iii. Safeguarding Cyber Security and Data Integrity.

## **BOX 8: DATA PRIVACY, CONSUMER PROTECTION AND CYBERSECURITY POLICY RECOMMENDATIONS**

### **POLICY GUIDANCE: LAWFUL COLLECTION OF INFORMATION**

*Alternative data involving personal information used for the evaluation of creditworthiness of consumers and SMEs should be collected and processed lawfully. The legal bases could involve consumers' consent for collection and processing that is necessary; (i) for the performance of a contract to which the data subject is party, (ii) for compliance with legal obligations, (iii) to protect vital interests of the data subject, (iv) for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller and (v) for the purposes of the legitimate interests pursued by the controller or by a third party.*

### **POLICY GUIDANCE: CONSENT**

*Recognizing that there are other legal bases for data collection and further processing, when alternative data is being used for a different purpose than the one specified for the data collection -consistent with domestic laws- consumers' consent shall be necessary. This policy guidance is also applicable for cross-border data flows. When data is provided by a third party, cost efficient mechanisms should be in place to enable consent where required.*

### **POLICY GUIDANCE: ACCURACY AND RELIABILITY**

*Regulators, policy makers and industry participants should adopt measures to ensure that alternative data collected is lawful, matched to the correct person, obtained from trustable sources, up-to date and relevant to the purpose for what is being used. Understanding that data will not be completely free of error, accuracy of data obtained from multiple sources to make risk evaluation decisions could be achieved by establishing requirements relating to the collection, data processing and further distribution of the information.*

### **POLICY GUIDANCE: CONSUMER'S RIGHTS**

*Data controllers should enable mechanisms that allow consumers access and the ability to correct their information as well as request the deletion of data -when appropriate- based on applicable laws or rules on retention periods. In addition, consumers should also be able to object to the processing of their information for certain purposes (i.e., marketing). Consumers should also be given the opportunity to transfer their data to any other service provider of their choice without affecting the usability of the data.*

### **POLICY GUIDANCE: SECURITY**

*Consistent with existent national cybersecurity plans, industry participants should conduct periodic cybersecurity risk assessments, develop policies and procedures to effectively respond to cyber incidents, communicate cyber incidents to all relevant parties -including consumers- as soon as practicably possible or as required by law, and devote resources to assess, monitor and mitigate consequences of cyber-incidents. These measures are also applicable for any outsourced service that involves the processing and storage of personal information.*

### **POLICY GUIDANCE: DISCRIMINATION**

*Policy makers and industry participants should adopt measures to ensure that predictiveness of alternative data is tested and verified, that scoring models developed using alternative data do not unfairly discriminate against protected groups. The use of alternative data that carries forward historical discrimination is either prohibited or restricted, taking into account its ability to predict risk and the availability of alternative decision-making tools.*

### **POLICY GUIDANCE: TRANSPARENCY**

*Industry participants should enable mechanisms that allow consumers to understand the key facts (e.g., name of the data controller, purpose of the data collection, potential users of the data, consumers' rights, details on dispute handling mechanism and lawful bases for such data collection) of the data collection. Informing consumers about these facts, contributes to enhanced transparency and trust. This could be achieved in the form of a privacy policy or privacy notes which could be provided through electronic means or any other ways*

### 3.6 MAINTAINING PRICING TRANSPARENCY

67. **Credit reporting systems should effectively support sound and fair extension of credit in an economy as the foundation for robust and competitive credit markets.** Increased automation and digitization of the credit reporting ecosystem may result in additional reduction of the cost of acquiring and processing credit data by CRSPs.
68. Credit scoring methodologies have increased in sophistication with the passage of time and as more and more data has become accessible and available. The new methodologies have made CRSPs to become more capable of differentiating customers based on their risk<sup>29</sup>.
69. Robust credit reporting infrastructure should thus result in reduction of the cost of credit for borrowers.

#### ***POLICY RECOMMENDATION 21: RISK BASED PRICING***

***Policy makers should encourage lenders to adopt risk based pricing methodologies for borrowers to benefit from lower lending costs.*** Risk based pricing methodologies should become embedded in the credit granting policies and procedures of lenders. In addition, there is need to ensure that there is need for financial literacy on the benefits of scoring, in particular risk based pricing.

#### **IV. CONCLUSIONS AND RECOMMENDATIONS**

70. Access to credit for MSMEs and individuals can be expanded by promoting the use of alternative data in credit reporting. This is especially relevant for those with “no or thin credit files” where complementing traditional data sources with alternative data sources can assist in the design of more tailor-made financial products and services. The adoption of alternative data brings with it various challenges and/or risks, which needs to address for alternative data to be effectively leveraged on.
  
71. The policy guide provides proposals on countries to use in considering adoption and use of alternative data to enhance credit reporting.

## END NOTES

---

<sup>1</sup> Data Protection and Privacy for Alternative Data. GPMI- FCPL Sub-Group Discussion Paper. GPMI & World Bank

<sup>2</sup> Meghana Ayyagari, Thorsten Beck, and Asli Demirgüç-Kunt, "Small and medium enterprises across the globe: A new database," 2003. [http://siteresources.worldbank.org/DEC/Resources/84797-1114437274304/SME\\_globe.pdf](http://siteresources.worldbank.org/DEC/Resources/84797-1114437274304/SME_globe.pdf)

<sup>3</sup> MSME Finance Gap: Reassessment of the Systemic Shortfall in Financing Micro, Small and Medium Enterprises, World Bank Group, IFC, SME Finance Forum, 2017

Two trillion and counting: Assessing the credit gap for micro, small, and medium-size enterprises in the developing world, IFC & McKinsey (October 2010)

<https://www.ifc.org/wps/wcm/connect/3d5d09804a2d54f08c1a8f8969adcc27/Two+trillion+and+counting.pdf?MID=AJPERES>

<sup>4</sup> *ibid*

<sup>5</sup> Facilitating SME Finance through improved credit reporting. ICCR and World (May 2014)

<sup>6</sup> GPMI Report Alternative Data Transforming SME Finance  
<https://www.gpmi.org/sites/default/files/documents/GPMI%20Report%20Alternative%20Data%20Transforming%20SME%20Finance.pdf>

<sup>7</sup> [http://siteresources.worldbank.org/FINANCIALSECTOR/Resources/Credit\\_Reporting\\_text.pdf](http://siteresources.worldbank.org/FINANCIALSECTOR/Resources/Credit_Reporting_text.pdf)

Credit reporting systems comprise the institutions, individuals, rules, procedures, standards and technology that enable information flows relevant to making decisions related to credit and loan agreements. At their core, credit reporting systems consist of databases of information on debtors, together with the institutional, technological and legal framework supporting the efficient functioning of such databases. The information stored in these systems can relate to individuals and/or businesses

<sup>8</sup> Giving underserved consumers better access to the credit system: The promise of non-traditional data.

Information Policy Institute (2005). <http://www.perc.net/wp-content/uploads/2013/09/nontrad.pdf>

[http://www.perc.net/wp-content/uploads/2013/09/New\\_to\\_Credit\\_from\\_Alternative\\_Data\\_0.pdf](http://www.perc.net/wp-content/uploads/2013/09/New_to_Credit_from_Alternative_Data_0.pdf)

<sup>9</sup> <https://www.gpo.gov/fdsys/pkg/FR-2017-02-21/pdf/2017-03361.pdf>

<sup>10</sup> <https://risk.lexisnexis.com/insights-resources/video/alternative-data-defined>

<sup>11</sup> Alternative Data and the Unbanked. (Oliver Wyman, 2017). [http://www.oliverwyman.com/content/dam/oliverwyman/v2/publications/2017/may/Alternative\\_Data\\_And\\_The\\_%20Unbanked.pdf](http://www.oliverwyman.com/content/dam/oliverwyman/v2/publications/2017/may/Alternative_Data_And_The_%20Unbanked.pdf)

<sup>12</sup> ICCR Policy Brief: Credit Reporting Systems Contribution to Financial Inclusion (March 2017)

<sup>13</sup> ICCR Policy Brief: Credit Reporting Systems Contribution to Financial Inclusion

<sup>14</sup> See Key Considerations: Financial Consumer Protection and New Forms of Data Processing, Beyond Credit Reporting, World Bank Group (December 2017)

<sup>15</sup> Can alternative data expand access to credit, FICO (October 2015)

<sup>16</sup> Using alternative data: Top three challenges to be addressed. Transunion (2015)

<https://www.transunion.com/resources/transunion/doc/insights/research-reports/research-brief-alternative-data-challenges-barriers.pdf>

Kreiswirth, B.; Schoenrock, P. and Singh, P. (2017). Using alternative data to evaluate creditworthiness

<https://www.consumerfinance.gov/about-us/blog/using-alternative-data-evaluate-creditworthiness/>

<sup>17</sup> Article 20 of newly issued "The Law of Promoting Small and Medium-sized Enterprises" in 2017 in China encourages larger buyers from SME supply/value chains to confirm their account payables to lenders to improve financing efficiency. In addition, Mexico is currently working on an open data model under the new FinTech Law (need link from Banco de Mexico) that will allow the use of alternative data through various means including Application Programming Interface (API) to promote competition in the credit markets. One of the main proposals of the FinTech Law is that it recognizes that the customer has the legal right over his or her information including the right to authorize financial service providers to "pull" data from different sources. Likewise, all financial service providers wishing to access the data should have the authorization of the client. Customers will also have the right to revoke, at any time, the authorizations they have given. Likewise, it is planned that Banco de Mexico, will issue regulation to improve the quality of information (e.g. by setting the standards) held by credit institutions and other financial entities as well as the information held by credit bureaus. See the FinTech law of Mexico

---

<http://www.senado.gob.mx/sgsp/gaceta/63/3/2017-10-12-1/assets/documentos/Iniciativa Ejecitvo Federal.pdf>

Also see the EU GDPR and PSD2 regulations.

<sup>18</sup> General Principles for Credit Reporting (<https://openknowledge.worldbank.org/handle/10986/12792>)

<sup>19</sup> Ibid.

<sup>20</sup> The challenges of ensuring proper business identification prompted governments around the world to convene the Financial Stability Board (FSB) to analyze the underlying problems and to create a global legal entity identifier (LEI) to uniquely identify entities that engage in financial transactions, representing the public interest. Hence, at the Cannes Summit in 2011, the G20 provided a mandate to the FSB to lead the co-ordination of international regulatory work and to deliver concrete recommendations for the appropriate governance framework global legal entity identifier system (GLEIS), representing the public interest. The respective FSB report “A global Legal Entity Identifier for Financial Markets” with its high-level principles and concrete recommendations describing the governance framework as well as the operational infrastructure of the GLEIS has been approved by the G20 at its Los Cabos summit in 2012, followed by the implementation of the GLEIS by the LEI Regulatory Oversight Committee, so that the issuance of LEIs could start in 2013. The global LEI system provides a valuable building block to contribute to and facilitate many financial stability objectives, including: improved risk management in firms; better assessment of micro and macro prudential risks; facilitation of orderly resolution; containing market abuse and curbing financial fraud; and enabling higher quality and accuracy of financial data overall. In addition, the GLEIS is also to be used by the private sector for improved risk management, increased operational efficiency, more accurate calculation of exposures, and other needs. The LEI Regulatory Oversight Committee (ROC) is the ultimate authority for oversight of the Global LEI System. The ROC is currently a group of 72 public authorities with full membership and 18 observers from more than 50 countries. The LEI ROC represents public authorities from around the globe that have come together to jointly drive forward transparency within the global financial markets by making use of the LEI. Established by the Financial Stability Board in June 2014, the GLEIF acts as the operational arm of the system and is tasked to support the implementation and use of the LEI on a not-for-profit basis. The foundation is backed and overseen by the LEI ROC and has currently accredited 30 Local Operating Units (LOU) to issue LEIs (with more applicants on the waiting list). The LEI itself has become an ISO Standard (ISO 17442) to globally uniquely identify distinct entities that engage in financial transactions in the broadest definition. The total number of issued LEIs exceeds 1.15 million at the end of Q1/2018.

<sup>21</sup> <https://www.mckinsey.com/industries/financial-services/our-insights/data-sharing-and-open-banking>

<sup>22</sup> Coordination with the Committee of Payments and Market Infrastructures (CPMI) of the Bank for International Settlements and the World Bank Group (WBG) Task force on the Payments Aspects of Financial Inclusion (PAFI) would be useful for this policy exercise

<sup>23</sup> Lessons from Colombia’s shift to electronic payments.

[https://btca-prod.s3.amazonaws.com/documents/34/english\\_attachments/Colombia-Diagnostic-Highlights-ENG-Jan-2015.pdf?1438939559](https://btca-prod.s3.amazonaws.com/documents/34/english_attachments/Colombia-Diagnostic-Highlights-ENG-Jan-2015.pdf?1438939559)

<sup>24</sup> <http://www.doingbusiness.org/data/exploretopics/getting-credit/good-practices>

<sup>25</sup> Key Considerations: Financial Consumer Protection and New Forms of Data Processing, Beyond Credit Reporting, World Bank Group (December 2017)

<sup>26</sup> Ibid.

<sup>27</sup> <https://www.gleif.org/en/about-lei/mckinsey-company-and-gleif-creating-business-value-with-the-lei>

<sup>28</sup> World Bank and the Committee on Payments and Market Infrastructure on Payment Aspects of Financial Inclusion (PAFI) September 2015 <https://www.bis.org/cpmi/publ/d133.pdf>

<sup>29</sup> The Role of Credit Reporting in Supporting Financial Sector Regulation and Supervision, International Committee on credit Reporting, January 2016