

CAPITALIZING SUSTAINABLE FINANCE  
IN ARGENTINA

A stocktake and review of  
sustainable finance opportunities  
for Argentina



## UN Environment Inquiry

The Inquiry into the Design of a Sustainable Financial System has been initiated by the United Nations Environment Programme (UN Environment) to advance policy options to improve the financial system's effectiveness in mobilizing capital towards a green and inclusive economy—in other words, sustainable development. Established in January 2014, the Inquiry's work was extended for another two years in late 2015, and came to a close at the end of March 2018. It has published three editions of its global, landmark report: the first in October 2015, the second in October 2016, and the third in October 2017. It published its final, global report in April 2018.

More information on the Inquiry is at: [www.unepinquiry.org](http://www.unepinquiry.org) or from: Ms. Mahenau Agha, Director of Outreach [mahenau.gha@un.org](mailto:mahenau.gha@un.org).

## About this report

This report was prepared by the UN Environment Inquiry. Recognizing the need for mainstreaming of the sustainable finance agenda, it contributes to building a dialogue on the future development of Argentina's financial system and its alignment with the international sustainable development agenda.

Marcos Mancini and Prajwal Baral are the co-authors of this report. Errors and omissions are the responsibility of the authors. Comments or questions are welcome and can be addressed to: [marcos.mancini@un.org](mailto:marcos.mancini@un.org) or [baralprajwal@gmail.com](mailto:baralprajwal@gmail.com).

## Acknowledgements

Substantive guidance was provided by Iain Henderson (UN Environment Inquiry), Delfina Lopez Freijido, Maria Florencia Baldi and Maria Candelaria Alvarez Moroni (Ministry of Treasury, Argentina). The following people provided valuable inputs, comments and feedback: Mahenau Agha (UN Environment Inquiry), Marcos Ayerra (Comisión Nacional de Valores), Rocío Balestra (Comisión Nacional de Valores), Fernando Blanco (Banco Provincia), Cristina Calvo (Banco Nación), Alejandra Camara (BCBA), Julián Costoya (Comisión Nacional de Valores), Maria Eugenia di Paola (UNDP), Anabel Fazio (Banco Central de la República Argentina), Ignacio Federicci (Superintendencia de Seguros de la Nación), Jorge Golla (Banco Central de la República Argentina), Martin Goñi (Agencia Argentina de Inversiones), Constanza Gorlieri (Banco Galicia), Malena Kramer (Superintendencia de Seguros de la Nación), Jeremy McDaniels (UN Environment Inquiry), Ruben Mercado (UNDP), Nadia Montenegro (Comisión Nacional de Valores), Silvia Moromoto (UNDP), Juan Pazo (Superintendencia de Seguros de la Nación), Felicity Perry (UN Environment Inquiry), Francisco Preusche (Agencia Argentina de Inversiones), Marcelo Raffin (Banco Central de la República Argentina), Nick Robins (UN Environment Inquiry), Carolina Robles (UNDP), Agustín Torcassi (Banco Central de la República Argentina), René Mauricio Valdez (UNDP) and Simon Zadek (UN Environment Inquiry).

---

Copyright © United Nations Environment Programme, 2018

## Disclaimer

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the United Nations Environment Programme concerning the legal status of any country, territory, city or area or of its authorities, or concerning delimitation of its frontiers or boundaries. Moreover, the views expressed do not necessarily represent the decision or the stated policy of the United Nations Environment Programme, nor does citing of trade names or commercial processes constitute endorsement.



## CONTENTS

<b>EXECUTIVE SUMMARY</b>	<b>5</b>
<b>1 THE INTERNATIONAL SUSTAINABLE FINANCE MOMENTUM</b>	<b>9</b>
<b>2 SUSTAINABLE DEVELOPMENT IN ARGENTINA: SUSTAINABLE FINANCE NEEDS AND FLOWS</b>	<b>13</b>
2.1 NEED FOR SUSTAINABLE FINANCE	13
2.2 ESTIMATION OF FINANCIAL NEEDS	13
2.3 SUSTAINABLE CAPITAL FLOWS, GAPS AND OPPORTUNITIES IN ARGENTINA	14
<b>3 ARGENTINA AND SUSTAINABLE FINANCE: TAKING STOCK</b>	<b>17</b>
3.1 ARGENTINA'S CURRENT FINANCIAL SYSTEM	17
3.2 SUSTAINABLE FINANCE IN ARGENTINA	20
<b>4 LOOKING FORWARD</b>	<b>37</b>
4.1 SALIENT CHALLENGES AND INTERNATIONAL EXPERIENCES	37
4.2 LEVELS OF ACTION FOR PROMOTING SUSTAINABLE FINANCE	42
<b>5 THE STRATEGIC OPPORTUNITY AHEAD</b>	<b>49</b>
<b>6 ANNEX 1: SUSTAINABLE FINANCE NEEDS</b>	<b>51</b>
6.1 SUSTAINABLE FINANCE NEEDS: TOP-DOWN APPROACH	51
6.2 SUSTAINABLE FINANCE NEEDS: BOTTOM-UP APPROACH	53
<b>7 ANNEX 2: SUSTAINABLE FINANCE FLOWS</b>	<b>55</b>
7.1 PUBLIC FINANCE	55
7.2 PRIVATE FINANCE	56
<b>8 ANNEX 3: LENDER ENVIRONMENTAL LIABILITY IN ARGENTINA</b>	<b>61</b>





# EXECUTIVE SUMMARY



Harnessing the financial system will be essential for transitioning to a low-carbon, inclusive and sustainable model of development. Finance lies at the heart of the three key international policy achievements reached in 2015: the Financing for Development package, the new set of 17 Sustainable Development Goals (SDGs), and the Paris Agreement on Climate Change.

Since 2014, the UN Environment Inquiry has built knowledge on how countries are aligning the rules that govern the financial system with sustainable development, and assisted countries in accelerating this process. To capitalize on its G20 presidency, and specifically on its work under the G20 Sustainable Finance Study Group (SFSG) in the Finance Track, Argentina conducted a stocktaking process to identify its current state of sustainable finance and further develop its sustainable finance agenda. This report lays out such a stocktake and sheds light on how Argentina's financial system can unlock investment and contribute to the SDGs and the Paris Agreement on climate change.

The report provides a comprehensive analysis of sustainable investment opportunities in Argentina between 2019 and 2030, assesses the characteristics of those opportunities, and estimates current flows of sustainable finance. Drawing on consultations with key national stakeholders and lessons from other countries, the report also presents current barriers to scaling up sustainable finance in Argentina and possible ways to address those barriers.

## **Sustainable Investment Opportunity**

The report finds that the need for sustainable finance in Argentina between 2019 and 2030 is US\$51 billion per year – coming mostly from infrastructure-heavy sectors such as transportation, housing, energy and telecommunications. Sustainable transportation will require the largest volume of investment, at approximately US\$24 billion per year.

The current flow of sustainable finance in Argentina is estimated at approximately US\$14.1 billion per year. This implies that the total annual sustainable investment will need to increase by 260% to ensure that sustainable investment opportunities are met by 2030. Sustainable private finance will need to grow by almost 50% from current levels to meet investment needs.

## **Stocktake of the Development of Sustainable Finance in Argentina**

Unlocking private finance and reallocating capital flows to more sustainable investments will be instrumental for Argentina to catalyse financing for its sustainable growth needs. The development of the financial system is a key component to supporting this growth in an inclusive and sustainable manner. Argentina's financial system is mostly dominated by banks and the Sustainability Guarantee Fund (pension fund). The capital market is relatively small compared to other countries in Latin America.



While the Argentinian banking system has recently showed an increased interest in sustainable finance, the momentum has mostly been limited to membership of global sustainable finance committees and associations. On the capital market side, the National Securities Commission (CNV) is involved in the development of social, green and sustainable bond guidelines, and has established a Working Group on Sustainability in Emerging Markets (WGS) under its membership in the International Organization of Securities Commissions (IOSCO)'s Growth and Emerging Markets (GEM) Committee. In the same way, Bolsas y Mercados Argentinos SA (ByMA) became a member of the Sustainable Stock Exchanges (SSE) initiative in 2017 and has developed a new panel – similar to the Brazilian Novo Mercado – that demands that listed companies comply with higher international standards, integrating specific environmental, social and governance (ESG) metrics.

The National Superintendency of Insurance (SSN), which regulates the insurance market in Argentina, is also aligned with the SDGs. It has recently joined the Sustainable Insurance Forum (SIF) and became a signatory to the UN Environment Finance Initiative (UNEP FI) Principles for Sustainable Insurance (PSI).

### **Barriers to Sustainable Finance**

Despite some progress, unlocking sustainable finance has been challenging for Argentina. The country faces a range of generic and specific barriers related to the delivery of financial services that are aligned with its sustainability objectives. Pervasive fossil fuel subsidies and uncertainty in the regulatory framework because of political and economic instability are the major policy and regulatory barriers.

Similarly, a lack of specific technical capacity among financial actors to manage ESG-related risks and price these risks appropriately in their portfolio, and of efficient communication channels among market players (financial institutions, market regulators and the concerned ministries) have obstructed the growth of sustainable finance.

The absence of appropriate risk-sharing facilities and credit guarantees has discouraged long-term asset-based lending, which would be critical for sustainable development projects that generally require a long-time horizon.

The lack of a clear definition of sustainable finance or standards to ensure the quality of sustainable products and limited publicly available environmental data and risks, have prevented the integration of sustainability criteria into investment and credit decision-making – ultimately limiting the development of differential credit lending to SDG-aligned assets.

### **Solutions and Way Forward**

Argentina's G20 presidency provides a unique opportunity for the country to scale up its current efforts and embrace the opportunities presented by sustainable finance. These opportunities include promoting financial system shifts, including via market innovations and voluntary standards, public-private partnerships, and supporting policy, regulatory and fiscal reforms. Argentina could learn from the experiences of other countries around the globe by replicating or contextualizing their approaches in mobilizing sustainable finance.

The report highlights many specific solutions. The main findings are:

- Enabling policies designed to increase investment in economic, social and environmental welfare are a key component to an environmentally and socially sustainable economy, especially if private sector efforts to achieve the SDGs are to be effective.
- The risk and cost of capital could be reduced through the promotion of best-in-class corporate governance codes, ESG disclosure requirements or guidance, and adoption of reporting standards.

- ⦿ The facilitation of the development of ‘green’ and SDG-aligned financial products and services through, for example, tagging green loans and providing sustainability bond guidelines is also important.
- ⦿ Similarly, the aggregation of banking associations, capital market exchanges, finance regulators and other relevant stakeholders to promote a national dialogue on sustainable finance could promote mutual learning and mutually reinforcing sustainable finance initiatives.
- ⦿ The adoption and promotion of sustainable digital finance and technology could drive financial inclusion by cutting financial transactions costs, improving the quality and usability of financial services, enhancing accessibility, and boosting the quality of portfolios. Other well-documented benefits of financial technologies are the incorruptibility, transparency and traceability in transactions in both the financial system and the real economy.
- ⦿ Building skills and capacity in sustainable finance among practitioners and regulators can have substantial positive effects in scaling and accelerating sustainable finance.







# 1 THE INTERNATIONAL SUSTAINABLE FINANCE MOMENTUM



Harnessing the financial system will be essential for transitioning to a low-carbon, inclusive and sustainable model of development. Finance lies at the heart of the three key international policy achievements reached in 2015: the Financing for Development package, the new set of 17 Sustainable Development Goals (SDGs), and the Paris Agreement on climate change.

- **Financing for Development:** The outcome document of the Financing for Development Conference (Addis Ababa Action Agenda) focused on identifying and establishing steps to increase domestic and international resource mobilization for developing countries, including private capital. One of its conclusions was to “strengthen regulatory frameworks to better align private sector incentives with public goals, including incentivizing the private sector to adopt sustainable practices, and foster long-term quality investment” both from domestic and international institutions.
- **Sustainable Development Goals:** As the centrepiece of the 2030 Agenda for Sustainable Development, the 17 SDGs bring together an interlocking set of economic, social, and environmental objectives through 2030, matched by 169 targets. For the financial system, the SDGs set out a high-level roadmap for generating “shared value” – shifting capital away from damaging ‘business-as-usual’ trends and towards an end to poverty, increased prosperity with social inclusion, and environmental regeneration.<sup>1</sup> Estimates suggest that US\$5-7 trillion a year is needed to implement the SDGs globally.<sup>2</sup>
- **Paris Agreement:** The Paris Agreement established the goal of “making financial flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.”<sup>3</sup> In practice, this means aligning capital with the long-term goal of keeping global warming “well below 2°C above pre-industrial levels,” with the aspiration to “limit temperature increase to 1.5°C” – as well as financing adaptation investments.

**Building on these foundations, 2017-2018 saw a step change in sustainable finance, as the significance of ESG factors became acknowledged as a mainstream feature of financial sector development (see Box 2).** While the financial system is not fully aligned with the imperatives of confronting climate change or delivering sustainable development, sustainability is now recognized as a key performance indicator at all levels – from the management of individual assets through financial portfolios and financial institutions to the governance of the financial system as a whole.

**To date, most efforts have centred on the environmental dimension – known as ‘green finance’ – with a particular focus on climate change.** While ‘greening’ the financial system carries clear social co-benefits, it will not be enough. Responding to the structural challenge of sustainable development requires the systematic incorporation of ESG factors to deliver long-term prosperity – in other words, sustainable finance (see Box 1). Recognizing the need to promote this more comprehensive lens to better understand the broader development plan of financial systems and be able to include sustainability in all its aspects (economic, environmental, social), G20 members under Argentina’s presidency expanded the remit of the G20 Green Finance Study Group to that of Sustainable Finance Study Group.



### BOX 1. DEFINING GREEN AND SUSTAINABLE FINANCE

**Green Finance** is defined as financial services that provide environmental benefits within the context of environmentally sustainable development, such as action on climate change.

**Sustainable Finance** can be broadly understood as financing, as well as related institutional and market arrangements, that contributes to the achievement of strong, sustainable, balanced and inclusive growth by supporting directly and indirectly the framework of the SDGs.<sup>4</sup>

The definition of sustainable finance has evolved over the past few decades. In a framework for sustainable finance proposed by Bruegel in 2017,<sup>5</sup> it is illustrated that financial firms have started to move from simply avoiding investments in unsustainable companies and risk minimization (Sustainable Finance 1.0 and 2.0) to investing in sustainable companies and projects to create value for the wider community (Sustainable Finance 3.0). During 2018, under Argentina's presidency, G20 members convened on a general understanding over sustainable finance (see Box 1) as a reflection of the evolution of the agenda.

**TABLE 1: A FRAMEWORK FOR SUSTAINABLE FINANCE**

Sustainable finance typology	Value created	Ranking of factors	Horizon
Sustainable Finance 1.0	Shareholder value	$F > S \text{ and } E$	Short term
Sustainable Finance 2.0	Stakeholder value	$T = F+S+E$	Medium term
Sustainable Finance 3.0	Common good value	$S \text{ and } E > F$	Long term

Source: Bruegel (2017). Note: F = financial value; S = social impact; E = environmental impact; T = total value. At Sustainable Finance 1.0, the maximization of F is subject to minor S and E constraints.

As part of the ongoing sustainable finance momentum, there is an increasing recognition that sustainable finance development may also improve the stability and efficiency of the financial markets. However, today's global financial system is not well equipped to deal with mid- to long-term risks such as climate change, income inequality, cyber threats and natural resource depletion among others, which reinforces the insufficient capital relocation to sustainable finance investments.

For a systematic development and deployment of sustainable finance, a sustained, system-level intervention is required to reshape the global financial architecture. The financial architecture refers to the rules governing the financial system, and concerns the roles of financial policymakers, regulators, standard setters and market-based rule-makers such as rating agencies and securities and derivatives exchanges.<sup>6</sup> Advancing national action and international cooperation is required to make sure that the international financial system and the monetary system take the 2030 Agenda and the common good approach into account. There has been some good international, national, and market-driven progress toward a sustainable financial system, which has been guided by various sustainability principles, standards, and national and international policies, as illustrated in the box below.

### BOX 2. PROGRESS TOWARDS A SUSTAINABLE FINANCIAL SYSTEM

Key signals of this shift in 2017-2018 include:

1. **Financial Materiality:** Leading investment institutions – with managed assets exceeding US\$70 trillion – committed to implementing the Principles for Responsible Investment, which require the integration of ESG factors into capital allocation, shareholder

engagement and policy dialogue. The materiality of these factors was underscored by the Financial Times, when concluding that “mounting evidence that funds which observe environmental, social and governance (ESG) standards tend to outperform those that don’t by a significant margin.”<sup>7</sup>

2. **Capital Raising and Reallocation:** The green bond market, which has turned ten years old this year, became one of the most visible expressions of the ongoing reallocation of capital. In 2017, global green bond issuance reached a new record of more than US\$160 billion<sup>8</sup> – up from US\$81 billion in 2016. In 2018, expectations are that the market could reach US\$250 billion.<sup>9</sup> China, France and the US led the way on issuing green bonds.<sup>10</sup> Equity markets also transformed in response to the sustainability challenge: the Sustainable Stock Exchanges initiative expanded to include 77 stock exchanges as members.<sup>11</sup> Other leading initiatives such as, for example, Climate Action 100+, have gathered 296 investors with US\$31 trillion in assets under management to engage important greenhouse gas emitters to invest in opportunities to drive the clean energy transition and help achieve the goals of the Paris Agreement.
3. **More and Deeper National Policy Action:** By October 2017, nearly 300 financial policy and regulatory measures targeting sustainability were in place in over 60 countries.<sup>12</sup> The growth in new measures has averaged around 20% annually since 2010, with an increase of nearly 30% since July 2016.<sup>13</sup> Following the lead of countries such as China<sup>14</sup> and Morocco,<sup>15</sup> a growing number of governments have embarked on developing national roadmaps for green and sustainable finance, including Italy<sup>16</sup> and Singapore.<sup>17</sup> The EU has launched a high-level expert group on sustainable finance to hardwire sustainability into its financial architecture.<sup>18</sup>
4. **International Financial Cooperation:** In 2018, the G20 continued to explore the policy implications of sustainable finance under Argentina’s Presidency, focusing on the deployment of financing by creating sustainable assets for capital markets, developing sustainable Private Equity and Venture Capital, and exploring potential applications of digital technologies to sustainable finance.<sup>19</sup> Having explored sustainable finance in 2017 under Italy’s Presidency, the G7 continued focusing on sustainable finance as a means to deliver the aspirations outlined in the SDGs. In addition, the Financial Stability Board (FSB) Task Force on Climate-related Financial Disclosures (TCFD) presented in 2017 its final recommendations for consistent reporting by business and finance. The TCFD is one of the clearest expressions of sustainability factors becoming part of international market norms. The next challenge is implementation.

Building on the Addis Ababa Action Agenda (AAAA), the United Nations (UN) Secretary-General seeks to promote a three-part strategy for enhancing UN support to financing the 2030 Agenda. This strategy seeks to:

- ensure that the AAAA’s objectives are fully reflected in international economic and financial policies that impact the mobilization of financing<sup>20</sup>
- reform the UN development system to strengthen UN country teams, including with regard to supporting countries in brokering partnerships for innovative finance
- champion key international initiatives that can harness large-scale changes in financing and financial system development, such as in the fields of digitalization and climate finance.

**This momentum is very encouraging but remains insufficient to deliver on sustainable development.** For example, meeting the global objectives of the Paris Agreement could require US\$1 trillion in annual green bond issuance – 10 times the existing market.<sup>21</sup> A number of strategic challenges continue to constrain the development of sustainable finance, including concerns over the clarity and consistency of key definitions, incomplete disclosures, and market failures (such as environmental externalities and short-termism). Together, these challenges can negatively affect the demand for sustainable financial services, as well as reduce the pipeline of sustainable financial assets.

**Importantly, scaling up sustainable finance is increasingly seen as a strategy that connects the environmental and social agenda with wider macroeconomic challenges for addressing lacklustre global growth rates.** For example, in his 2016 speech *Resolving the Climate Paradox*, Bank of England Governor Mark Carney emphasized the linkage between green finance capital flows and financial stability in countries where growth is most carbon-intensive. In addition, he stressed that “by allocating capital to green technologies, the prospects for an environmentally sustainable recovery in global growth will increase.”<sup>22</sup> Furthermore, as stated by the Sustainable Finance Study Group, “a proper framework for sustainable finance development may also improve the stability and efficiency of the financial markets by adequately addressing risks as well as market failures such as externalities.”<sup>23</sup>

## 2 SUSTAINABLE DEVELOPMENT IN ARGENTINA: SUSTAINABLE FINANCE NEEDS AND FLOWS



*“Climate change is humanity’s most important challenge, and only by being aware of this can we progress, without putting our future and the future generations in check.”*

*President Mauricio Macri, 12 December 2015*

### 2.1 NEED FOR SUSTAINABLE FINANCE

Achieving economic growth that eradicates poverty, reduces inequality, while combating climate change and respecting a range of other planetary boundaries, is the only way to satisfy the needs of today’s global population, as well as the predicted<sup>24</sup> 2050 population of 9.7 billion people.<sup>25,26</sup>

The SDGs included in the 2030 Agenda highlight many aspects that are priority to Argentina’s development.

Government spending will play a critical role but it is not sufficient to achieve the SDGs. Unlocking private finance and reallocating current capital flows to more sustainable investments – and making this a lasting feature of its financial system – will be instrumental for Argentina to catalyse financing for a prosperous and sustainable economy. To this end, government spending has proven key to unlock and leverage private sector finance. Furthermore, the Addis Ababa Action Agenda stresses the need to “strengthen regulatory frameworks to better align private sector incentives with public goals, including incentivizing the private sector to adopt sustainable practices, and foster long-term quality investment.”<sup>27</sup>

Having an overall picture of the funding need for transitioning to a sustainable economy is a useful element to help devise actions. The United Nations Conference on Trade and Development (UNCTAD) estimates that achieving the SDGs will take US\$5-7 trillion, with an investment gap in emerging economies of about US\$2.5 trillion.<sup>28</sup>

*“The 2030 Agenda is for Argentina the horizon towards which we direct our international cooperation.”*

*Vice-President Gabriela Michetti, 12 December 2017*

### 2.2 ESTIMATION OF FINANCIAL NEEDS

Unlike green finance, sustainable finance encompasses a broader range of financing needs and investment opportunities that exceed those in the realm of climate finance or green finance. Within Latin America, there are no comprehensive estimates for such needs for the 2016-2030 timeframe.

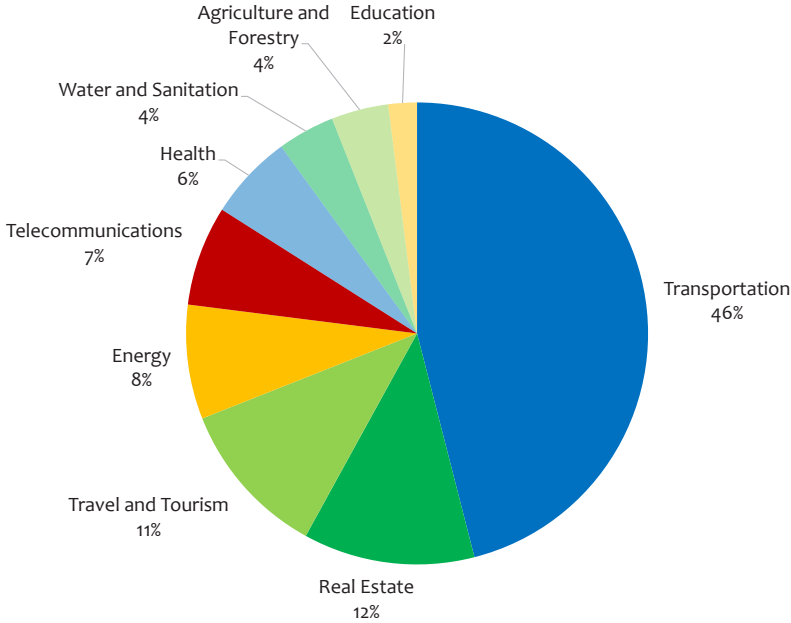
There is no universal template to derive estimates that offer consistent variables including scope, methodologies and definitions. Various methods can be used for estimating this need in Argentina. For the purpose of this report, the SDGs have been used as a framework for this estimation, providing the



universe of sectors and activities that require sustainable finance and investment. When considering SDG-related investment needs, estimates are usually not mutually exclusive and collectively exhaustive (MECE). Indeed, the calculation of investment needs for some SDGs might be lacking or investments related to a particular SDG might have co-benefits and positive or negative spillovers associated with other SDGs. Given that SDGs provide an intricate network of development objectives with complex causal and feedback loops, the collective calculations presented here, despite the methodological and definitional challenges, only provide a directional estimate for the value of these needs in Argentina.<sup>29</sup>

Using both top-down and bottom-up approaches, annual needs for sustainable finance for Argentina for the 2019-2030 period are estimated to range from US\$40 billion to US\$60 billion. Our top-down approximation for calculating sustainable investment needs is based both on macroeconomic data and estimates based on, and linked to, international policy commitments. The bottom-up approach to calculating sustainable investment needs was based on estimates across nine different sectors (e.g. transportation, telecommunications, energy, water and sanitation, agriculture and forestry, health, education, real estate, and travel and tourism) that have been identified by the Government of Argentina as key to unlocking the future growth of the country. For the purpose of this report, the estimation resulting from the bottom-up approach, a total of US\$51 billion per year, is used to further calculate financing gaps and opportunities. Figure 1 below shows the distribution of these needs across various sectors. The detailed calculations and associated assumptions are presented in Annex 1.

**FIGURE 1: SUSTAINABLE FINANCE NEEDS IN ARGENTINA BY SECTOR BETWEEN 2019 AND 2030**



Source: Authors

**2.3 SUSTAINABLE CAPITAL FLOWS, GAPS AND OPPORTUNITIES IN ARGENTINA<sup>30</sup>**

Understanding the magnitude of the sustainable investment gap in Argentina calls for estimating the existing sustainable finance flows. Data gaps, definitional inconsistencies, and methodological complexities create challenges in quantifying sustainable finance flows, and these issues are explored in greater detail in Annex 2. Table 2 summarizes these flows from various financial sources and compares the total to the annual investment needs of US\$51 billion per year. This would imply the 2019-2030 investment opportunity is US\$609 billion. From current levels, total annual sustainable investment will need to increase by 260% to ensure that the Argentinian sustainable investment opportunities are met by 2030.



**TABLE 2: CURRENT SUSTAINABLE FINANCE FLOWS (2017, IN US\$ BILLION)**

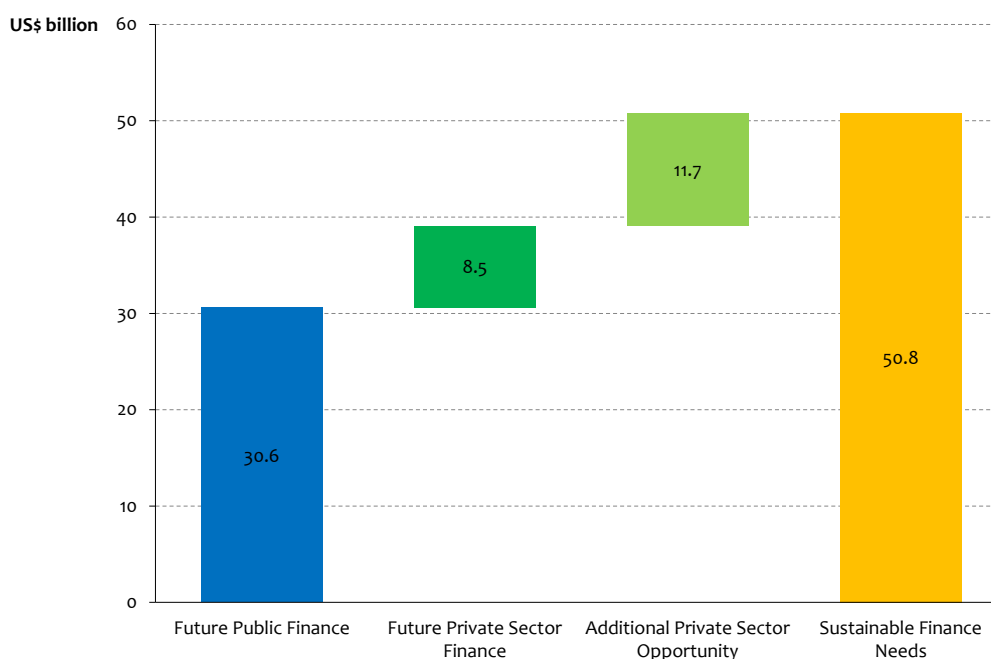
<b>Yearly sustainable investment needs</b>	<b>50.8</b>
Sustainable finance flows (2017)	
Public finance*	5.5
Institutional investment (Public)	0.1
Private	
Commercial loans	3.2
Corporate bonds	0.3
Institutional investment	0.1
Foreign direct investment	4.9
<b>Total</b>	<b>14.1</b>
<b>Yearly increase in finance required to meet the need</b>	<b>36.7</b>

\* Public finance refers to government/municipal/state expenditure.

Source: Authors

Given Argentina’s national debt obligations, the analysis assumes that Argentina’s public finance will be able to support only up to 60% of development infrastructure related expenditures. It is also assumed that public institutional investment will grow in line with Argentina’s projected GDP growth (3.5%) for the period 2019-2030.

**FIGURE 2: ANNUAL SUSTAINABLE INVESTMENT OPPORTUNITY FOR THE PRIVATE SECTOR BETWEEN 2019 AND 2030 (US\$ BILLION)**



Source: Authors

As can be seen from Figure 2, future annual private finance requirements will be US\$11.7 billion a year in addition to the current flow of US\$8.5 billion a year. This suggests sustainable private finance will need to grow by almost 50% from current levels to meet the investment needs in Argentina.





### 3 ARGENTINA AND SUSTAINABLE FINANCE: TAKING STOCK



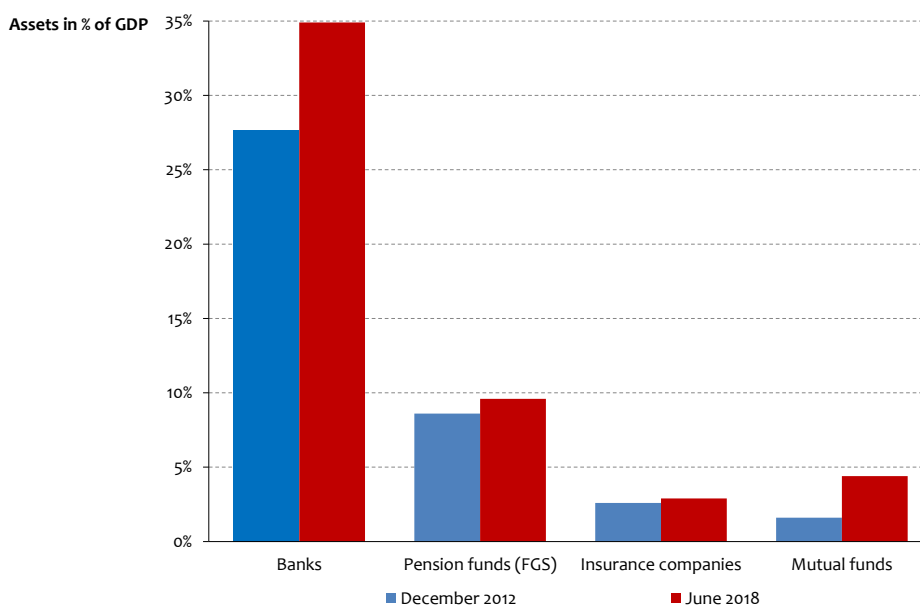
Unlocking private finance and reallocating current capital flows to more sustainable investments will be instrumental for Argentina to catalyse financing for its sustainable growth needs. The development of the financial system is considered a key component to support this growth in an inclusive and sustainable manner; specifically, to intermedate the savings needed to support private sector investment in the financing of the SDGs.-

This section provides a brief description of Argentinian financial markets to serve as a general background for the stocktake of Argentina’s efforts towards sustainable finance.

#### 3.1 ARGENTINA’S CURRENT FINANCIAL SYSTEM

As seen in Figure 3, Argentina’s financial system is dominated by banks and the Sustainability Guarantee Fund (FGS, also known as Fondo de Garantía de Sustentabilidad).<sup>31</sup> Other types of non-bank financial entities play a relatively small role.<sup>32</sup> Total assets of financial institutions regulated by the Central Bank (e.g. banks, FX agents, payment systems, remittance, cash in transit companies) represent approximately 50% of GDP with banks alone representing approximately 33%.<sup>33</sup>

**FIGURE 3: ARGENTINA FINANCIAL SYSTEM – MAIN PLAYERS (ASSETS IN % OF GDP 2012 VS. 2018)**



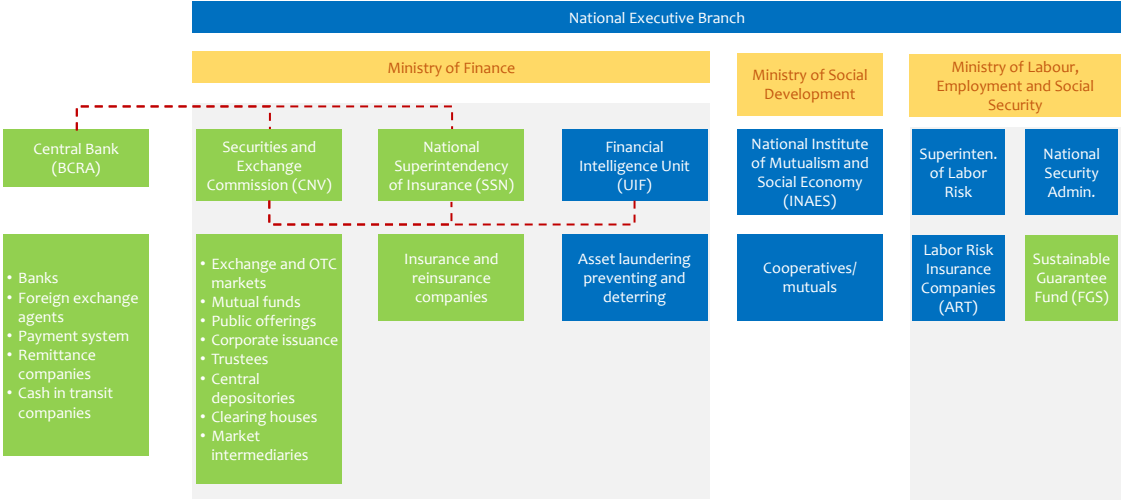
Source: BCRA based on ANSES-FGS, SSN and CAFCI. Insurance companies’ data as of March 2018

The main institutions regulating Argentina’s financial system are detailed in Figure 4. For the purpose of this report, which focuses on understanding the current state of sustainable finance and the needs, flows and barriers, increased emphasis will be given to the Central Bank (BCRA), the Securities and Exchange



Commission (CNV) and the National Superintendency of Insurance (SSN). Financial intelligence units are increasingly becoming important players in the sustainable finance field, as the amount of evidence linking tax havens, illicit financial flows and environmental degradation increases.<sup>34</sup> However, these will not be considered in this report.

**FIGURE 4: REGULATORY STRUCTURE OF ARGENTINA’S FINANCIAL SYSTEM**



Source: Adapted from FSB Peer Review of Argentina

**3.1.1 BANKING SECTOR**

The banking sector is composed of 77 financial entities (62 banks, 14 finance companies, 1 credit cooperative). Of the 62 banks, 13 are public banks and 49 are private banks (33 domestically owned). Public banks have development-oriented mandates and account for 41% of the total banking sector assets.<sup>35</sup>

The banking system appears to be resilient to the ongoing macroeconomic transition.<sup>36</sup> Argentina’s banking system has showed increased deepening in terms of GDP, inclusion and modernization with liquidity and solvency levels and strong asset quality that contribute to its resiliency.<sup>37</sup> It is well capitalized, with low non-performing loans (around 2.2%) and relatively large provisions. Despite the recent expansion in credit to private sector<sup>38</sup> (21% increase in real terms year over year as of August 2018), the banking system currently accounts for around 15% of credit to GDP compared to a regional average of around 42%.<sup>39</sup> It is the smallest in Latin America and less than one tenth the size of the banking system in developed countries.<sup>40</sup> Home mortgages have played an important role in the current expansion of credit (156% increase in real terms year over year as of August 2018), which presents a strategic opportunity to promote sustainable finance (e.g. low-income housing, energy efficiency, renewable energy) Since private sector deposits have grown relatively less than credits,<sup>41</sup> additional bank funding was secured through debt issuance presenting additional opportunities to develop the green, social and sustainable bond market and further implement the G20’s SFSG recommendations on the creation of sustainable assets for capital markets.

In the current phase of the financial cycle, the exposure of the system to credit risk is increasing as a natural consequence of increases in the levels of sectoral leverage (individuals and companies). However, the current credit dynamics cannot be characterized as an ‘excessive’ growth in the level of financing.<sup>42</sup>

Loans from non-bank lenders (credit unions, credit card systems, other non-financial credit providers) currently represent less than 2% of GDP and are therefore not considered in this report.



### 3.1.2 INSTITUTIONAL INVESTORS

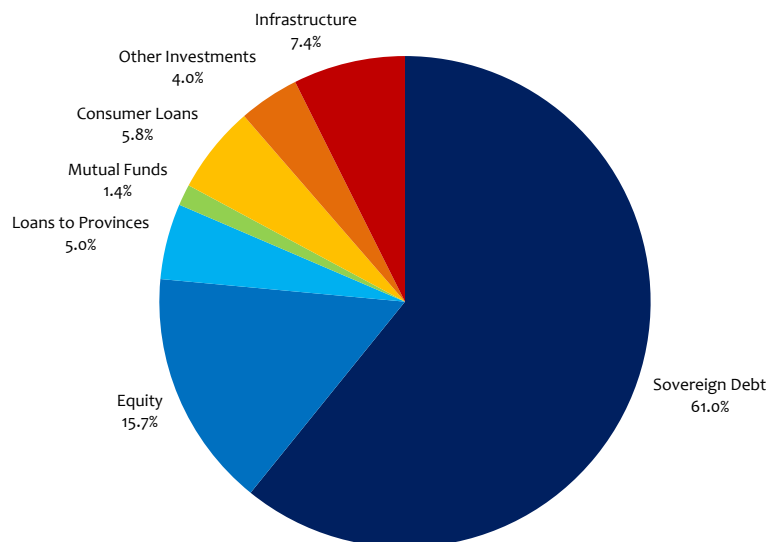
#### Sustainability Guarantee Fund (Fondo de Garantía de Sustentabilidad)

The Sustainability Guarantee Fund (FGS) is Argentina’s sovereign pension reserve fund and was constituted to guarantee retirement payments. Argentina has a pay-as-you-go pension scheme, financed through taxes and contributions from workers paid to the Social Security Administration (ANSES) that manages and owns the FGS. When taxes and contributions from workers cannot guarantee the retirement payments, the FGS finances the differential.

FGS’s mission is to preserve the value of its assets and look for the profitability of its resources. It is mandated to invest in projects and instruments that promote the development of the Argentinian economy and of long-term local capital markets. Within its specific objectives, the FGS looks to invest in infrastructure projects with high economic and social impact.

It has a total of AR\$1.382 billion in assets under management (AUM).<sup>43</sup> The composition of its portfolio is detailed in Figure 5. However, it is worth highlighting that the FGS has allocated 7.4% of its portfolios to productive investments (infrastructure).

**FIGURE 5: FGS PORTFOLIO COMPOSITION BY ASSET CLASS**



Source: FGS, ANSES

Additional information on the FGS portfolio composition and its sustainable finance implications are considered in Section 4.2.3 ‘Institutional Investors and Sustainable Finance’.

#### Insurance Sector

Argentina’s insurance sector accounts for approximately 3.2% % of GDP and focuses mainly on car- and work-related liabilities. It is a fragmented sector with 189 non-life insurers, 23 reinsurance companies and 89 admitted international reinsurers. Within insurers, 34 are life insurance, 15 are labour-risk insurance and 140 are non-life insurance.

#### Mutual Funds

As of July 2018, there were 523 mutual funds in Argentina compared to 289 at the end of 2012. Of the 523 mutual funds, 280 are fixed income funds, 60 are equity funds, 101 are blend funds, 32 are money



market funds, 14 are infrastructure funds, 27 are SME funds and 9 are total return funds.<sup>44</sup> Current market capitalization is 4.4% of GDP.<sup>45</sup>

### 3.1.3 CAPITAL MARKET

Argentina's stock market capitalization was around 12% of GDP as of June 2018, with outstanding bonds (national government, provinces and corporates) representing less than 55% of GDP. These figures imply that Argentina's capital markets are small when compared to other countries in Latin America. Following the resolution of the dispute between the government of Argentina and its debt holders, corporate bond issuance has gained momentum.<sup>46</sup> 2017 and the ongoing financial cycle have seen banks leading issuance until the second quarter of 2018. In 2018, a reform to the Capital Markets Law was approved. According to Argentina's Central Bank Financial Stability Report, the Productive Financing Law could potentially enhance debt capital markets dynamism allowing banks to grant more credit with a longer tenure while allowing credit and liquidity risk administration.<sup>47</sup>

Significant improvements have been made to the capital market infrastructure with the creation of a unified stock exchange (ByMA), which will increase liquidity and lower transaction costs from the central counterparty clearing house, the trading platform and the custodial agency.

A great regulatory enabler of sustainable investment in Argentina was the recent elimination of restrictions that were impeding the entry of capital. By annulling a rule that required foreign funds brought by investors to remain in Argentina for at least 120 days,<sup>48</sup> Argentina opened up the possibility for the stock market to win back 'emerging market' status under MSCI. The removal of this rule opens the door for Argentina's local fixed-rate peso bonds to be included in JPMorgan local government bond index, which could translate into US\$2.6 billion in demand for Argentina's US\$10.3 billion in securities. In addition, as the country was reclassified as an emerging market by MSCI, it will benchmark for tracking more than US\$10 trillion in AUM.<sup>49</sup> Gaining MSCI emerging market status will bring benefits through the additional inflows of SRI (Socially Responsible Investment) capital from funds considering MSCI emerging market index as the investable universe or sustainability exchange-traded funds constructed based on the same universe. Currently, more than US\$70 trillion are invested, taking into consideration sustainability criteria, and there are more than 450 indices and products that screen both equity and fixed income investment with these criteria.<sup>50</sup>

Further details on the opportunities to leverage capital markets and its sustainable finance implications are considered in Section 4.2.2 'Capital Markets and Sustainable Finance'.

## 3.2 SUSTAINABLE FINANCE IN ARGENTINA

This section highlights sustainable finance developments in Argentina's financial markets and provides a general indication of their maturity.

### 3.2.1 BANKING SECTOR AND SUSTAINABLE FINANCE

#### 3.2.1.1 CENTRAL BANK (BCRA)

Argentina's central bank (BCRA) functions as an autarkic institution governed by Law N° 24.144. Its mandate is "to promote – within the framework of its powers and the policies set by the national government – monetary and financial stability, employment and economic development with social equity."

Currently, the BCRA is focused on the banking sector's more traditional risks such as liquidity, market, credit and operational issues. There is little to no regulatory attention focused on less traditional but emerging risks such as socio-environmental factors or reputational issues. The BCRA requires banks to

report on reputational risk but does not specify how to disclose or report. Addressing socio-environmental risks has been so far a concern driven mainly by development finance institutions (DFIs) and local market leaders.<sup>51</sup>

In relation to climate-related risks, given the dependence of Argentina's economy on agriculture and hence the exposure of the banking system to the sector, the BCRA factors in drought as an immediate variable affecting short-term growth.

Given the emergence of increasingly accurate parametric insurance, which can reduce the risks for this type of financing, the BCRA reduced capital requirements for loans to agricultural producers. The requirements were made more flexible, since they have coverage against weather events.<sup>52</sup> With this measure, the central bank sought to reduce the exposure of the financial system against climate-related tail risk (1 in 20 years) shocks such as floods or droughts.

The BCRA conducts annual top-down stress exercises for all financial institutions, evaluating key indicators in a horizon of two years under extreme adverse scenarios. This year, a bottom-up stress test exercise was carried out for the first time with the participation of four private entities classified as locally systemic (representing 31% of the system's assets at the end of 2017).

In fulfilling its mission to achieve financial inclusion, the central bank adopted measures to reduce the cost of banking and enhance the benefits of being banked. Examples of this are the establishment of cost-free saving accounts, including the use of their corresponding debit card and free transfers between individuals up to US\$250,000.<sup>53</sup>

Other measures include a simplification of the authorization process for opening branches, reduced building requirements for areas of lower population density, and allowing banks to use mobile branches. As technology continues to foster the development of new and disruptive business models and products that can help develop a green economy, the role of fintech becomes ever more important.

According to recent statistics, the number of mobile banking users in Argentina doubled in 2016 to 3 million. And although only 50% of the Argentine population is banked, it was estimated that in 2017 the number of mobile banking users would grow to 5 million, and home banking to 6.5 million. This is mainly due to two developments: a greater supply of mobile banking opportunities by banks seeking differentiation in their offer, and the impulse of the central bank to enable greater functionality in digital channels.<sup>54</sup>

### **International Experience**

Central bank mandates are usually associated with monetary policy and price stability, and their function is frequently perceived in isolation with little consideration for the unintended consequences of monetary policy for the financing of SDGs. However, the past years have seen analysis and initiatives on the role that central banks play in aligning the financial system to meet its true purpose of financing a sustainable real economy. Discussion under the G20 SFSG and networks such as the Central Banks and Supervisors Network for Greening the Financial System (NGFS), the Sustainable Banking Network (SBN) and others<sup>55,56,57</sup> recognize that, given the enormous investment needs in every economy, and given that central banks have regulatory capacity over banks operating in the country, they cannot remain on the margins of the discussion. In fact, 40% of the G20 members' central banks or regulating financial authorities have joined the NGFS and 50% have a mandate that extends beyond monetary policy into macroeconomic objectives.

A growing body of information suggests that climate-related shocks can be a leading variable of macroprudential risks to the financial system. Under Argentina's G20 presidency the SFSG acknowledged "a proper framework for sustainable finance development may also improve the stability and efficiency of the financial markets by adequately addressing risks as well as market failures such as externalities."

International experience shows<sup>58,59,60,61</sup> that regulators are increasingly becoming involved in understanding climate-related risks. In fact, 78% of policy and sustainability-related regulatory measures to date were put in place between 2009 and 2017, with a compound annual growth rate of roughly 19% during this period. At the end of 2013, there were a total of 131 sub-national, national-level policy and regulatory measures. By the end of 2017, the number of measures had doubled to 267.<sup>62</sup>

Central banks are being called upon to increase their focus on the risks that climate change and environmental degradation present to the real economy and the financial system. Some regulators have even embraced sustainable development as an overarching framework. Such is the case of the Dutch central bank.<sup>63</sup> Others have advanced the sustainable finance agenda based on its relation to their financial stability mandate. This is the case for the Bank of England, which has explored the prudential implications of climate change in response to a national climate change law. In the case of Brazil, legal environmental liability in the financial sector provided the basis for BACEN's *Resolution no. 4.327*, which established guidelines for financial institutions to develop and implement social and environmental risk policies. The People's Bank of China (PBoC), which is mandated to maintain price stability and facilitate economic growth, began its involvement in green finance in July 2014 when the PBoC Research Bureau and the UN Environment's Inquiry launched a Green Finance Task Force, which released its 'Recommendations on Establishing China's Green Financial System'. Later in 2016, seven ministerial agencies, including the PBoC and the Ministry of Finance, jointly released the 'Guidelines for Establishing the Green Financial System', setting out their official definition of 'green finance', incentives, disclosure requirements and development plans for green financial products, as well as risk mitigation. In addition, the central bank of Bangladesh, aside from conducting monetary management and financial sector supervision to maintain price stability and financial system robustness, also supports inclusive economic growth, employment generation and poverty eradication.<sup>64</sup> These examples showcase a wide array of central banks from developed and developing economies with developed and underdeveloped financial systems beginning to involve themselves in the sustainable finance agenda. In addition, the NGFS exemplifies progress in this sphere, opening an opportunity to deepen understanding and exchange on sustainable finance from the central banks' perspective (see Box 3).

### 3.2.1.2 BANKS

In the past year, Argentina's banking associations have shown increased interest in sustainable finance, with two out of three associations setting up sustainability committees, and one of them becoming a UNEP FI supporting institution and joining the Sustainable Banking Network. Both networks provide links to like-minded regulators and associations and support in the development of policies and related initiatives to advance the sustainable finance agenda locally.

The biggest sustainability-related network adopted by the local banks has been the UN Global Compact, with four members from the banking sector (Banco Macro, Banco Ciudad, Banco de la Nación and CMR Falabella). Only one local bank (Banco Galicia) is a signatory to UNEP FI.<sup>65</sup> However, when considering internationally owned banks, the number of signatories to the UNEP FI increases, reaching a higher percentage (more than 30%)<sup>66</sup> of the AUM in the Argentinian banking system.

The Equator Principles (EPs) are a risk management framework, adopted by financial institutions, for determining, assessing and managing environmental and social risk in projects. They are primarily intended to provide a minimum standard for due diligence and monitoring to support responsible risk decision-making.

### BOX 3. CENTRAL BANKS AND SUPERVISORS NETWORK FOR GREENING THE FINANCIAL SYSTEM

“The Central Banks and Supervisors Network for Greening the Financial System (NGFS) is a group of Central Banks and Supervisors willing, on a voluntary basis, to exchange experiences, share best practices, contribute to the development of environment and climate risk management in the financial sector, and to mobilize mainstream finance to support the transition toward a sustainable economy.” The NGFS was set up at the Paris ‘One Planet Summit’ in December 2017. It has three workstreams:

#### **WS1 – Microprudential/Supervisory:**

This workstream is conducting a mapping of existing country experiences and supervisory practices (e.g. environmental and climate information disclosure by banks and assets managers) in relation to climate-related physical and transition risks to better understand the extent to which a financial risk differential exists between ‘green’ and ‘brown’ assets.

#### **WS2 – Macrofinancial:**

This workstream has set out a multi-year programme to:

- *Understand how climate change impacts the macroeconomy.* To do so, it will develop an analytical framework to size the impact of climate-related risks (physical and transition) both in the central case and in the event of tail scenarios.
- *Understand how climate change and the transition impact upon financial stability.* It will examine the financial stability implications of increased climate-related risks and look to understand how they appear in the risk profiles of different financial instruments and on the balance sheets of different financial institutions. It will also seek to understand how climate-related risks can create broader systemic risk either by aggregating microprudential risks or directly through macroprudential impacts.

#### **WS3 – Mainstreaming Green Finance:**

The purpose of WS3 is to outline the role that central banks and supervisors could play in promoting the scaling-up of green finance. This workstream is mapping existing incentives to scale up green financing. WS3 will notably work on a comparative approach to green taxonomies, green bonds labelling and the prevention of ‘greenwashing’, the regulation of second opinion provider and their methodologies.

While only one local bank (Banco Galicia) is a signatory to the EPs, several international banks through their local subsidiaries are required to apply the EP E&S Risk Management Framework, as well as their own corporate standards. According to data from the survey from November 2016 undertaken by UNEP FI and CAF, this would account for 39% of the banks and approximately 84% of the AUM in the banking system. One should consider that the implementation of the management systems is not homogeneous and has, in some cases, a limit regarding the capacity of the operations of those entities interviewed.

Different reviews of the EPs have seen several improvements in scope, transparency and accountability. EP III, for example, has introduced the term ‘human rights’ for the first time and acknowledges several declarations and principles on the matter (e.g. Ruggie Framework). This is more in line with the concept of sustainable finance that Argentina is embracing, looking to recognize the social and environmental complexities and interlinkages of financing the SDGs.

Implementation of social and environmental risk management under the EP Framework has its ‘barriers’ in Argentina and other developing countries for several reasons:

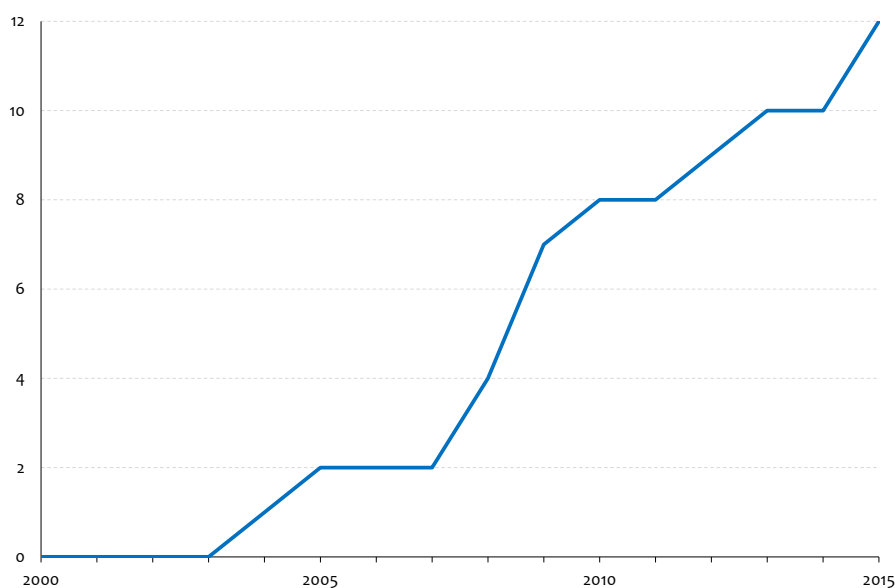
- ⦿ **Low penetration of locally financed project finance:** The banking system, until recently, was not lending in dollars. In addition to high interest rates, inflation and high political risks, this policy severely limited project finance by local banks.
- ⦿ **High triggering amounts:** The EP framework establishes a US\$10 million triggering amount for project finance and a US\$100 million for corporate finance. Given the devaluation of the peso and the above-mentioned conditions, paired with trade retentions that the previous administration had imposed, companies had no incentive to upgrade CAPEX infrastructure in order to remain competitive; therefore, corporate finance rarely exceeded US\$100 million.
- ⦿ **Leverage ratios and capital restrictions:** This presents a problem in many developing economies with small financial systems. Given the size of the banking system in Argentina and the market capitalization of its banks, the established leverage ratios do not allow many banks to lend amounts required in many big infrastructure projects. Moreover, loan syndication makes it harder to implement social and environmental standards across different financial institutions.

The increase in the penetration of DFIs in the country as a way to increase long-term funding in dollars is certainly a driver for financial institutions to implement social and environmental risk management systems. For example, 68% of the Argentinian banking institutions participating in a UNEP FI study done in 2017 reported that they have had or currently have some kind of operation with DFIs.

The absence of long-term financing from banks has promoted investment decisions that were biased toward conventional, and frequently more polluting, technologies that might be acquired with shorter-loan terms. Longer-term lending was done through intermediation financing by DFIs.

Figure 6 shows the analysis from the UNEP FI and CAF survey for the current level of integration of social and environmental risk management in financial institutions (FIs) covering banks accounting for 87% of the AUM in the banking system. From 2006, there has been a significant progression in the adoption of environmental and social standards in credit operations. However, as mentioned in the report, there is still much ground to be covered since only 39% of the participating banks have implemented socio-environmental management systems.<sup>67</sup>

**FIGURE 6: NUMBER OF BANKS WITH SOCIAL AND ENVIRONMENTAL RISK MANAGEMENT SYSTEMS**



Source: UNEP FI and CAF (2017)

Many of these banks (55%) saw that training credit officers in terms of environmental and social risk analysis would facilitate further integration of social and environmental risk factors into mainstream



financial decision-making. Among the topics covered by banks' mandatory trainings were: evaluation of social and environmental risks in credit and investment operations (68%); green financial products (52%); and financial analysis of environmental projects (45%).

In Argentina, despite the increased percentage of financial institutions from 2006 to 2017 implementing social and environmental risk management systems, there are still no requirements for formal disclosures to the central bank on these types of risks, nor is a common framework to measure and disclose them. Work done by the Cambridge Institute for Sustainability Leadership has mapped G20 country engagement with the FSB TCFD and found that 60% of G20 countries have some degree of political and regulatory engagement with its agenda.<sup>68</sup>

While the central bank has reporting requirements for banks based on industry codes, there is no industry categorization that allows for the proper identification of sustainability-related credits disbursed by financial institutions. Understanding risks derived from environmental harm and climate change requires an increased comprehension of the underlying assets in the portfolio. It is therefore necessary to identify both 'green' and 'brown' assets in order to understand potential transitional risks derived from Argentina's international commitments (*i.e.* the Paris Agreement). It is also necessary to identify specific geographic exposure to potential physical risks as well as the potential legal risks derived from environmentally sensitive sectors.

Banks are interested in leveraging other sources of information<sup>69</sup> in their risk analysis. Figure 12 details several tools and information sources that banks would be willing to consider in their social and environmental risk analysis. However, as identified in the national Human Development Report produced by the United Nations Development Programme, environmental sustainability data is lacking or poorly developed (79%). This hinders the integration of environmental data into financial decision-making. Against a similar backdrop, the central bank of Mexico is looking to implement the 2017 G20 recommendations on the use of publicly available environmental data (PAED) by the financial sector in its environmental risk analysis processes and financial decision-making.

As shown in Figures 7 and 8, debt issuance by banks accelerated since mid-2016. In the first half of 2017, several operations were in foreign markets, but since the second half of 2017 most of them were in the domestic market and in pesos. As of August 2018, debt issuance represented less than 3% of total funding (liability plus equity) with private banks having a higher percentage of debt issuance as a percentage of total funding. Capital market instruments represent, if properly regulated, an origin of resources capable to be channelled to the granting of credits. These provide diversification of funding instruments and allow to address certain mismatches (*e.g.* maturity mismatch) derived from the intermediation activity.

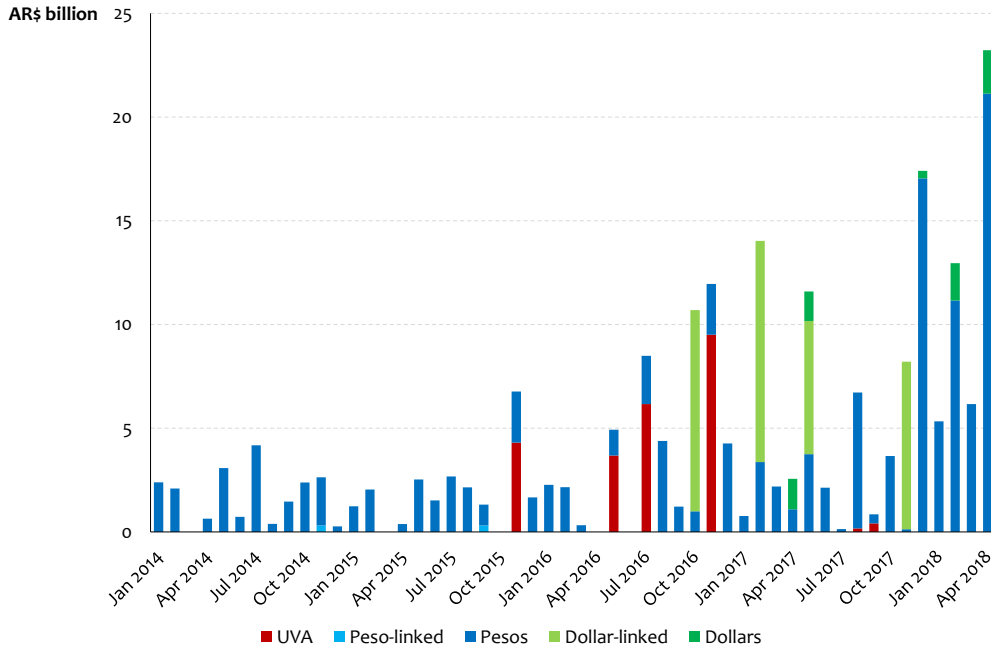
Many banks lend to the private sector in local currency, but only 15 account for more than 82% of this market. Out of these 15 banks, 11 have issued debt between October 2017 and April 2018 (this tendency slowed down in May, with the beginning of the turbulences in the markets). This group of issuers have a higher proportion of mortgages.

Considering the development-oriented mandate of state-owned banks, there is an opportunity to further align their portfolios to the SDGs – 'Green/SDG tagging' – and address potential mismatches by creating sustainable assets for capital markets, thereby attracting capital from responsible investors as well.

### **International Experience**

Several countries are going beyond the EPs and other voluntary E&S risk management frameworks and are developing strong environmental liability regimes. These have, in some cases, required the progressive involvement of the central bank given the exposure of financial institutions to 'lender environmental liability' (LEL).

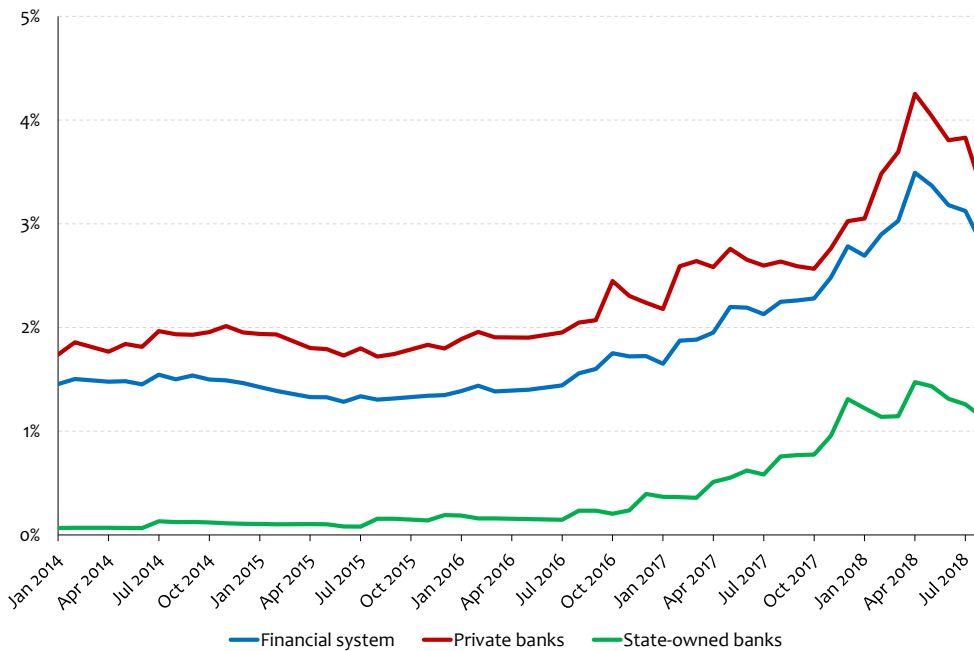
**FIGURE 7: CORPORATE BONDS ISSUANCE OF FINANCIAL ENTITIES**



Note: Corporate bonds denominated in dollars and payable in pesos (dollar-linked). Corporate bonds denominated in dollars y payable in pesos (peso-linked).

Source: BCRA, BCBA and CNV

**FIGURE 8: ACCOUNT BALANCE OF CORPORATE BONDS OVER TOTAL FINANCING\***



\* net liabilities + net equity

Source: BCRA, BCBA and CNV

This involvement from central banks is required to build up a ‘strong-potential’ liability regime<sup>70</sup> and has a positive impact on the real economy, as it allows financial institutions to complement the role of environmental regulating authorities. Lender environmental liability is also increasingly integrated into the legal and regulatory frameworks of some countries, which in turn requires lenders and regulators to take actions to reduce these risks.

#### **BOX 4. LENDER ENVIRONMENTAL LIABILITY: BUILDING ACCOUNTABILITY IN THE FINANCIAL SECTOR**

Lender environmental liability translates into the possibility of holding a financial institution accountable for an environmental harm incurred by a borrower client.

The UN Environment Inquiry has identified three types of LEL:<sup>71</sup>

**Non-existent LEL:** the legal regime does not allow for environmental liability upon lenders and investors (i.e. Peru and Turkey).

**Full LEL:** the legal regime allows for an interpretation that the financial institution can be held liable for environmental harm caused by the borrower, without limitation (i.e. Brazil).

**Potential LEL:** the legal regime allows for limited environmental liability upon lenders whenever there is a breach of duty of care expected from financial institutions (i.e. Colombia, Costa Rica, Germany, India, Mexico, South Africa, Paraguay, Portugal, the UK and the US).

From an individual financial institution perspective, tagging green or sustainable assets is starting to emerge as a strategy among leading banks from Europe (e.g. ABN Amro, BBVA, Berlin Hyp, HSBC, ING, Lloyds, SEB, Suedtiroler Volksbank, Triodos and UniCredit) to scale up financing of energy-efficient housing among other green or sustainable loans. Green tagging refers to a “systematic process whereby banks identify the environmental attributes of their loans and underlying asset collateral.” It facilitates access to green bond markets, better tracking of green loan performance and provides greater transparency of climate risks and portfolio resilience.<sup>72</sup> It also helps provide a better understanding of the underlying risks associated with brown assets that could lead to lender environmental liability mentioned above.

Additionally, the Principles for Positive Impact, a UNEP FI-driven initiative, is establishing a framework for reporting on how the banking system fulfills its financial intermediary role by acting as a tool for economic growth. Some central banks (China, Bangladesh) have established green credit guidelines, while banking associations (Colombia, Mexico) are working on developing a reporting framework for their banks.

### **3.2.2 CAPITAL MARKETS AND SUSTAINABLE FINANCE**

#### **3.2.2.1 SECURITIES AND EXCHANGE COMMISSION (CNV)**

Stock exchanges and the CNV have been the main actors within the sustainable finance ecosystem in Argentina.

Capital Markets in Argentina are regulated by the national securities commission under Law N° 26.831. The CNV is one of the few market regulators internationally with sustainability in its mandate. The CNV has had an important role promoting the sustainable finance agenda both at a national and international level. Its mission is to “Protect investors and promote the development of a transparent, inclusive and sustainable capital market that contributes to the economic and social progress of the country.”

In Argentina, the CNV looks to promote, through an integrated approach, the development of sustainable finance strategies, investment practices, mandates and policies that unlock capital for the development of a sustainable financial market and establish Argentina as a sustainable financial centre in Latin America. The CNV’s specific sustainability objectives are:

- ⦿ Develop sustainable finance-related guidelines to promote market standardization and transactional cost reduction
- ⦿ Build market awareness and capacity development on sustainable finance
- ⦿ Study and propose policies and regulations to better align financial markets to sustainable development
- ⦿ Encourage assessment and better risk pricing of socio-environmental factors as a routine practice of financial risk management, integrating ESG-related criteria as a core concept of fiduciary duty responsibilities
- ⦿ Promote actions to strengthen financial system resilience against climate-related adverse weather events
- ⦿ Advance the understanding of the implications of sustainability from a prudential perspective.

The CNV has the power to regulate and supervise sustainability-related disclosures, establishing mandatory and comply, apply or explain procedures. This practice is at the forefront of sustainability regulation. The new version of the corporate governance adopts the format of apply-or-explain.

The responses of the code will be audited with the following methodology: every year, five companies will be selected by drawing lots, and their corporate governance reports will be monitored in detail by the CNV during three periods.

For that purpose, the CNV will take special attention to the information disclosed by the companies themselves. The objective is to make sure that the companies are taking in consideration the principles behind the recommended practices, rather than answering the report under a box-ticking scheme.

With this methodology, the CNV hopes to guide the companies to disclose relevant information regarding ESG issues, as well as corporate governance issues.

Additional work needs to be done to promote a standardized approach to disclosing ‘non-financial’ data.<sup>73</sup> No initiative, such as the establishment of reporting guidelines for listed companies, as recommended by the World Federation of Exchanges, has been identified. Examples of these guidelines can be found in the Mexican Stock Exchange, Bovespa or the London Stock Exchange.

Together with UN Environment and the Climate Bonds Initiative, the CNV is involved in the development of social, green and sustainable bond guidelines. It is looking to promote the guidelines to further encourage transparency and investor trust in the market, and promotes an integrated (social and environmental) approach to guidelines issuance. In this regard, the Argentinian capital market regulator could become a pioneering regulator by integrating both social and environmental indicators into debt issuance. Green bonds are certainly one of the fastest growing asset classes that can help maximize the benefits and minimize the potential environmental downside that such investments can generate.

The CNV’s rules contemplate the possibility that credit ratings agencies rate other risks (including social and environmental impacts) at an issuer request. Recently, it approved the Fix (Fitch’s subsidiary in Argentina) ESG rating methodology.

In May 2018, the government approved a capital market reform (the aforementioned Productive Financing Law N° 27.440). The reform contributes to the development of capital markets through the adaptation and modernization of its regulatory framework, incorporating a systemic risk mitigation approach for the CNV, in addition to reforms to boost mortgage financing and savings. The Productive Financing Law seeks among other things to: introduce new investment vehicles such as exchange-traded funds; facilitate the access of small and medium enterprises to the stock market; allow mortgage loans securitization; and provide greater flexibility in the issuance of debt instruments.

**TABLE 3: CNV'S MANDATORY AND COMPLY OR EXPLAIN PROCEDURES**

Capital Market Procedure	Mandatory Rules	Comply or Explain
<b>IPO Prospectus</b>	Disclosure of relevant environmental risks, environmental facts, issues and regulations significant for the business description, including its impact on assets; disclosure of environmental policies. Disclosure of facts, sanctions and legal cases with potential environmental damage.	
<b>Annual Reporting</b>	Environmental or sustainability policy included in the annual report.	Corporate social and environmental responsibility policy and balance sheet.
<b>Collective Investment Products (Mutual Funds)</b>		Disclosure of environmental policies of the mutual funds or an explanation why is not relevant in the opinion of the fund manager.
<b>Collective Investment Products (Trusts)</b>		Disclosure of (i) environmental policies of the financial trusts or an explanation why is not relevant in the opinion of the trustee, (ii) environmental risks and (iii) measures of prevention of environmental damage.
<b>Collective Investment Products (Real Estate Trusts)</b>	Disclosure of compliance with environmental regulations at the national and local levels by real estate financial trusts.	

Source: CNV

It is expected that the securitization process will give a greater momentum to the growth in the mortgage market, since it will most likely increase the funding of the entities that grant this type of loan. This would allow capital markets to complement banking activity. It would also allow the banking sector to address current maturity mismatches and further implement the G20 SFSG recommendations to make sustainable assets available to capital markets. Furthermore, the systemic risk mitigation approach incorporated by Law N° 27.440 could provide an increasing basis for the CNV to consider the increasing relevance of ESG risks, their corresponding corporate disclosure and credit rating evaluating methodology.

Internationally, through its IOSCO membership, the CNV has been participating in discussions on the role of securities markets in the sustainable finance agenda and the role securities regulation could play in promoting the sustainable instruments for capital formation and investments, such as green, social and sustainable bonds. More specifically, the CNV, currently acting as IOSCO's Growth and Emerging Markets (GEM) Committee Vice-chair, together with the Malaysian Securities regulator (GEM Chair), have established a Working Group on Sustainability in Emerging Markets (WGS).<sup>74</sup> The WGS looks to discussing the frameworks<sup>75</sup> that securities regulators are adopting to foster the growth of sustainable instruments and enhance transparency around this type of instrument.

## International Experience

Regulators in China, India and Indonesia have already developed guidelines for the green bond market, clearly defining what can and cannot be considered as a green bond. This prevents greenwashing and helps to continue building up investor trust.<sup>76</sup> In each case, the regulators have drawn heavily on international best practices as expressed through the voluntary Green Bond Principles and Climate Bonds Standards. This is important to enable cross-border flows of capital and allows national regulators to tailor the specifications to local conditions. Other markets are taking an active role in promoting green bond issuance. For example, the Monetary Authority of Singapore (MAS) introduced a green bond grant scheme in 2017 to offset the cost of companies issuing sustainability-oriented bonds.<sup>77</sup>

### 3.2.2.2 STOCK EXCHANGES

ByMA became a member of the Sustainable Stock Exchanges initiative in 2017 and has developed a new panel – similar to the Brazilian Novo Mercado – that demands listed companies to comply with higher international standards, integrating specific ESG metrics. The goals are to: ensure the protection of minority shareholders, increase market confidence, provide lower capital costs to listed companies, and attract qualified and responsible foreign investors.

It has also developed, in partnership with the Inter-American Development Bank (IADB) and based on IndexAmericas methodology, a Sustainability Stock Index (SSI). The CNV will regulate the listing requirements of SSI.

The Buenos Aires Stock Exchange (BCBA) has re-launched its sustainable finance business unit and hired a Head of Sustainability to implement a sustainability programme within the stock exchange. Additionally, to further the collaboration among Latin American stock exchanges, the BCBA together with the Mexican Stock Exchange agreed to work on the development of environmental markets during 2018 within the framework of the Argentine Presidency of the G20.

On International Women's Day, Argentina hosted, with the Sustainable Stock Exchanges initiative along with 40 stock exchanges around the globe, a bell ringing ceremony to raise awareness of the role that the private sector can play to advance gender equality, particularly in boards of directors.

## International Experience

Capital markets' institutions such as stock exchanges can provide an anchor for promoting sustainable finance. In Germany, for example, the Deutsche Börse Group has developed several sustainability-related initiatives aimed at improving transparency and performance on ESG issues and sustainable investment.<sup>78</sup> Through its transparency initiatives, all companies of DAX, MDAX, SDAX and TechDAX disclose sustainability information and “inform on their ESG reporting channels.” In March 2017, it launched a new Sustainable Finance Initiative in Frankfurt. The aim is to establish a new dialogue platform with the Frankfurt financial centre's key participants, including financial institutions as well as representatives from academia and NGOs.<sup>79</sup>

By focusing on ESG standardization, the Deutsche Börse Group has accelerated the capacity of listed, private sector companies to systematically develop and adopt sustainability strategies. The exchange contains 35 distinct sustainability indices and a comprehensive set of ESG indicators for disclosure purposes. Since 2011, the exchange has encouraged the adoption of the German Sustainability Code, an instrument that “aims at rendering companies' sustainability efforts transparent and comparable.”<sup>80</sup> Deutsche Börse has the third highest percentage of green revenue from listings among the G7 stock exchanges.

Another example is from Borsa Italiana, which has demonstrated a growing commitment to sustainability. In the 2016 ranking of sustainability disclosure on 45 stock exchanges, the Borsa Italiana climbed 11 places to the 19th position. In a more recent 2017 assessment of the quantitative ESG data disclosure rate by country, Italy ranked first in the G7 and fifth overall, according to FTSE, an index company co-owned by the London Stock exchange.<sup>81</sup> In March 2017, Borsa Italiana added a new segment to its ExtraMOT PRO market dedicated to the issuance of green and social bonds.<sup>82</sup>

In Mexico, the Mexican Stock Exchange (BMV) through MEXICO2, the platform for environmental markets from BMV, acts as secretariat for the Sustainable Finance Advisory Board, a high-level group gathering leading institutional investors, banks and regulators looking to mainstream sustainable finance in Mexico. BMV is also promoting the development of specific finance vehicles to repackage sustainable assets, making them available to institutional investors.

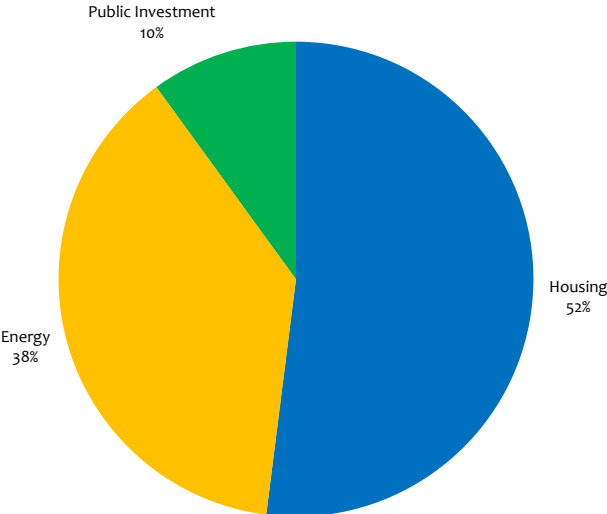
The Tokyo Stock Exchange has been active in promoting the creation of new environmental markets, starting with the launch of the first Asian carbon market in 2010. A new ‘Infrastructure Fund Market’ was established in April 2015, for listing funds that invest in infrastructure assets including renewable energy facilities, power grids, and transport and transmission networks.<sup>83</sup>

**3.2.3 INSTITUTIONAL INVESTORS AND SUSTAINABLE FINANCE**

**3.2.3.1 SUSTAINABILITY GUARANTEE FUND (FONDO DE GARANTÍA DE SUSTENTABILIDAD)**

As previously mentioned, the largest national institutional investor, the FGS, seeks to invest in infrastructure projects with high economic and social impact. These projects currently account for 7.4% of its portfolio (Figure 5). Although there is a clear intent to invest in infrastructure projects that deliver both economic and social impact, no evidence was found of the social and environmental risk management framework considered for this or other type of investment. The composition of the infrastructure portfolio is detailed in Figure 9.

**FIGURE 9: COMPOSITION OF THE FGS INFRASTRUCTURE PORTFOLIO**



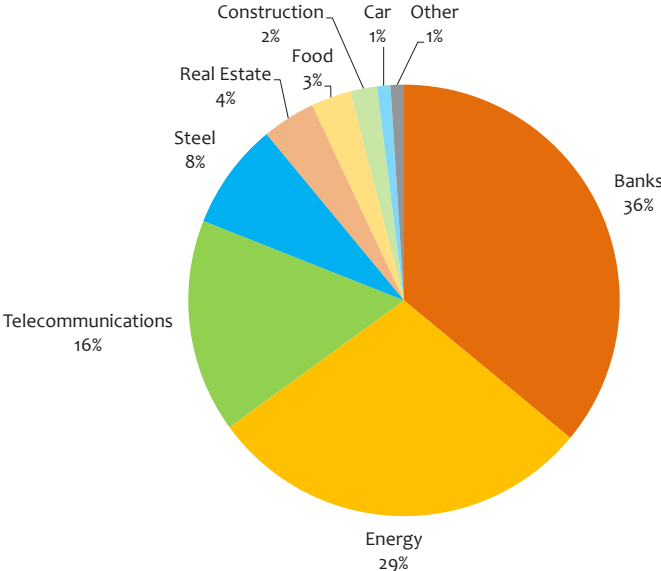
Source: FGS, March 2018

Considering the asset composition detailed in Figure 5, the FGS portfolio and the portfolio breakdown by sector detailed in Figure 10, a couple of observations can be made. Excluding investments in sovereign debt (61.0%), consumer loans (5.8%) and other investments that are not specified (4%), an ESG approach could be considered in about 30% of the FGS portfolio. This includes equity (15.7%), infrastructure (7.4%), mutual funds (1.4%) and loan to provinces (5%).



The FGS currently invests, through its equity portfolio, in 48% of the companies in the stock exchange. Market capitalization of the companies in the FGS equity portfolio is approximately 5% of Argentina’s GDP. The FGS has an average equity stake of 12% spreading from 0.8% to 27%. Exposure to banks and the energy sector currently accounts for 65% of the equity portfolio.

**FIGURE 10: FGS PORTFOLIO BREAKDOWN BY SECTOR**



Source: FGS, March 2018

After the Paris Agreement, several international commitments from assets managers and asset owners have appeared, pledging to align portfolios with a 2°C scenario. There are diverse sets of ESG strategies that can be implemented to do so. Given the portfolio composition presented above, particularly the high percentage of asset allocation to the banking sector, along with the relatively high equity stake in the industry, considering sustainability criteria in FGS portfolio could have a positive spillover effect to further align the banking industry to sustainable development.

By considering sustainability criteria in its investments, the FGS could become an important source of demand for sustainable assets coming from the banking industry. Setting up a trust to securitize sustainability-related CAPEX/EE credits that originate in banks could help develop a local sustainable finance market, provide increase liquidity to the banking sector, address potential maturity mismatches and develop the green bond market.

**International Experience**

Internationally, two trends were observed last year: first, an increase in assets owner’s active ownership in the selection and monitoring of external managers;<sup>84</sup> and second, the increase in consideration of ESG factors in fixed income securities in the sovereign and supranational space for both directly and indirectly managed assets.

**3.2.3.2 MUTUAL FUNDS**

While Argentina has experienced substantive growth in the number of mutual funds, there appears to be no mutual sustainability-related funds. In Argentina, only one small player in the investment space is a signatory to the PRI (NXTN Partners).





## International Experience

Globally, investors representing US\$89 trillion in AUM have committed to integrate ESG factors into their shareholder engagement, investment decisions and public dialogue. The main regions in terms of number of signatories still remain Europe (1,022) and North America (456).<sup>85</sup>

Perception of climate change as a long-term threat has remained high and almost constant at a 74% for asset owners and 62% for asset managers for the last two years. Evidence of this has been the quick uptake of asset owners (39%) and asset managers (31%) reporting on the FSB TCFD climate indicators, not only as a way to provide further transparency to their trustees but as a means to identify potential portfolio physical and transition risks, thereby fulfilling their duty of care.<sup>86</sup>

As the world faces the largest wealth transfer onto the millennial generation estimated at US\$30 trillion,<sup>87</sup> the case of the Article 173 of the Energy Transition Law in France provides an interesting example of how disclosure can provide a better understanding of the integration of ESG considerations into investment decision-making, and drive citizens' empowerment to select more sustainable or value-based aligned investments.

Article 173 requires investors to report how they integrate ESG issues into their investment policies and how they contribute to the SDGs and international climate targets. Disclosure is also important at the level of financial products. In France, an Energy and Ecological Transition label (TEEC) was introduced for investment products to increase transparency for consumers.<sup>88</sup> This has now been granted to 13 funds representing around €2 billion in assets.<sup>89</sup> An additional label for SRI funds was introduced in January 2016 to promote ESG integration; roughly 60 funds hold this label, together comprising around €10 billion in assets.<sup>90</sup>

### 3.2.4 INSURANCE SECTOR AND SUSTAINABLE FINANCE

#### 3.2.4.1 NATIONAL SUPERINTENDENCY OF INSURANCE (SSN)

The National Superintendence of Insurance (SSN) regulates the insurance market in Argentina under Law N° 20.091. Aligned with the SDGs, the SSN gives priority to providing access to insurance and the promotion of a sustainable economy and a market.<sup>91</sup> As an expression of its commitment to sustainability, the SSN recently joined the SIF and the PSI.

#### **BOX 5. ABOUT THE SUSTAINABLE INSURANCE FORUM AND THE PRINCIPLES FOR SUSTAINABLE INSURANCE**

**SIF:** The Sustainable Insurance Forum (SIF) is a network of insurance supervisors and regulators from around the world that are working together on sustainability challenges facing the insurance sector. It serves as a global platform for knowledge sharing, research and collective action.<sup>92</sup>

**PSI:** Launched at the 2012 UN Conference on Sustainable Development, the UNEP FI Principles for Sustainable Insurance serve as a global framework for the insurance industry to address environmental, social and governance risks and opportunities.

Looking to build up competences in sustainable insurance, the SSN has participated in Sustainable Insurance Forum meetings<sup>93</sup> and in the global seminar 'Insurance for the Strengthening of Inclusive Economic Development' organized by the International Association of Insurance Supervisors (IAIS).<sup>94</sup>

In addition, the SSN announced the commitment of insurance companies to invest AR\$6 billion (approx. US\$165 million) in instruments associated with the financing of small and medium-sized enterprises (SMEs) through the capital market.

Insurance and reinsurance companies will be able to account for these investments made through a public fund (FONDEP), administered by the Ministry of Production, in the Coverage of Reserves report part of the financial statements.

The productive portfolio will then be transferred to the capital market through the purchase of financial assets related to the financing of SMEs. The central objective of the measure is to increase the liquidity of the capital markets in which the instruments associated with the financing of SMEs are negotiated. This will allow them to obtain better conditions and allow more companies to participate in financing through these markets.<sup>95</sup>

The SSN is moving towards a risk-based supervision model. This means that insurance companies will be supervised not only with respect to their balance information, but also on qualitative and quantitative information that allows them to be listed according to a certain level of risk. This will in turn define what type of analysis and inspection will be carried out or the measures that the SSN will take.<sup>96</sup> The first step in its transition to a risk-based supervision model is to map out risks and build a risk matrix. The development of corporate governance standards and convergence to international standards of financial and solvency information are key in this transition.

As risk managers, risk carriers and investors, the insurance industry is uniquely positioned to play a key role in promoting economic, social and environmental sustainability. Internationally, both the PSI and the SIF have triggered the involvement of both market actors and regulators, as there is increasing evidence of the risk associated with climate change and environmental degradation.

Given the SSN transition towards a risk-based supervision, current PSI work to develop guidance for the insurance industry to integrate ESG<sup>97</sup> risks into insurance underwriting<sup>98</sup> could be particularly meaningful. By considering ESG risks, the insurance industry could prove essential for preventing and reducing ESG risks, thereby contributing to building a sustainable financial system and complementing the government's work to support key international commitments such as the SDGs, the Paris Agreement, the Sendai Framework for Disaster Risk Reduction, and the UN Guiding Principles on Business and Human Rights.

Developing the capacity to understand and price climate-related risks is particularly important for Argentina, since according to the World Bank data, flood damage in Argentina in 2012 accounted for 0.7% of GDP and is expected to account for at least 0.15% on a yearly basis. This will impact agriculture, which accounts for more than 41% of the country's exports. Inaction and failure to develop climate-resilient infrastructure could potentially reduce Argentina's GDP per capita by 53% by 2100, according to a study done by Stanford University.<sup>99</sup>

### **International Experience**

The Brazilian insurance market has become the world's first insurance market to commit to climate risk transparency.<sup>100</sup> It declared its support "for dialogue on practical and effective ways to meet the recommendations of the Financial Stability Board's (FSB) Task Force on Climate-related Financial Disclosures (TCFD), which should certainly consider the particularities of local insurance and financial markets and the materiality of climate-related risks across lines of insurance business and asset classes."<sup>101</sup> In 2016, the Superintendence of Private Insurance (SUSEP) surveyed the insurance sector to better understand the integration of sustainability factors. SUSEP is now considering a range of actions including improving disclosure, incentivizing green investments, and integrating environmental risks into underwriting policy.

The ‘Insurance Industry Development Goals for Cities’ launched in Montreal in 2018 serve as a clear example of positive action that can be driven forward by the insurance industry to “make cities inclusive, safe, resilient and sustainable.”<sup>102</sup> This framework sets the agenda for insurers and cities to work together conducting and supporting risk research and sharing risk information to make cities more sustainable by developing the markets to allow sustainable investments and integration of ESG criteria into risk pricing.

In September 2015, the Bank of England released an assessment of the impact of climate change on the UK insurance sector, setting out a framework of for how climate change may pose a range of physical and transition risks to firm and sector level stability.<sup>103</sup>

### 3.2.4.2 INSURANCE COMPANIES

In the insurance sector, restrictions that compelled insurance companies to invest in infrastructure projects previously approved by a political committee have been removed. The government is evaluating considerations such as tax incentives to increase investment in long-term assets.

The general law for the environment (N° 25.675) requires the development of environmental insurance to ensure the financing of any remediation required due to environmental damage. Article 22 of this law requires high-pollution industries to acquire this type of insurance. The adoption of environmental insurance has had problems due to a lack of knowledge of the subject and the process of executing policies, a low percentage of insured firms, a small number of insurance providers offering the service, and the lack of financially guaranteed options. Resolutions 548/17 and 204/18 aim to correct these market distortions.

The Principles for Sustainable Insurance, endorsed by the SSN, have been developed to raise market standards. However, there is no PSI member at the local level. The only two insurance companies in Argentina that are members of the PSI are the international insurance companies Allianz and Mapfre, covering 4.12% of the local market.

### International Experience

Different issues are emerging as part of the sustainable agenda for insurance companies. The international insurance industry has underscored the risk posed by illegal, unreported and unregulated fishing. In addition, major insurance companies are looking to shape the broader sustainable marine insurance agenda at the global level, both to reduce underwriting risk and help achieve SDG 14.<sup>104</sup> In the same way that car insurance companies can provide incentives to drivers by tracking driving habits through the use of the Internet of Things (IoT), the use of technology (e.g. remote sensing<sup>105</sup>) and environmental data disclosure (e.g. environmental fines) has proven key for the insurance industry to price the risk of commercial fishing fleets.

The case of Japan provides good ground for insights on risk underwriting and prudential regulation related to sustainability. Major Japanese insurers have significant experience in considering sustainability issues within insurance underwriting practices, including the assessment of natural catastrophe risks. Japanese insurers, working alongside the Japanese government, have been active in international efforts to improve disaster resilience, including the Pacific Catastrophe Risk Assessment and Financing Initiative.<sup>106</sup> Leading insurers such as Tokyo Marine, Sompo, and MS&AD are members of the Principles for Sustainable Insurance. In 2016, Tokyo Marine participated as a member of the FSB TCFD.

### 3.2.5 FOREIGN DIRECT INVESTMENT AND SUSTAINABLE FINANCE

The benefits of foreign direct investment (FDI) have been well documented.<sup>107</sup> FDI influences growth by raising total factor productivity, job creation and technology transfer. The last of these is perhaps the

most important channel through which foreign corporate presence may produce positive externalities in the host developing economy, increasing competition.

As Argentina opens to international markets, several fiscal, financial and regulatory incentives have been granted to attract investors and multinational enterprises (MNEs) to promote investment in the country. As part of these efforts, the government has established the Argentina Investment and Trade Promotion Agency with the purpose of promoting the country as a solid prospect for sustainable growth with strong economic fundamentals.

Aside from the positive economic benefits of attracting foreign investment capital, MNEs have an impact on environmental and social dynamics in the receiving countries. In this context, a potential risk is that FDI can lead to negative environmental outcomes when firms decide to move overseas in order to reduce the costs of complying with environmental regulations.<sup>108</sup> To this extent, the role of the Argentina Investment and Trade Promotion Agency becomes increasingly important, as it has the responsibility for attracting not only quantity but also quality investments.

Argentina's IPA and the American Chamber of Commerce in Argentina, recognizing that new ways of doing business are arising in response to the increasing environmental challenges, have developed a 'Legal Environmental Handbook' that summarizes and analyses environmental legislation at a national and provincial level. This handbook was developed as a resource for investors to consider environmental requirements and subsidies for potential investments.

### **International Experience**

According to the Vale Columbia Center on Sustainable International Investment and the World Association of Investment Promotion Agencies (WAIPA), environmental and social dimensions of sustainable FDI have increased in prominence compared with five years ago.<sup>109</sup> However, social dimensions still need to be further considered when analysing potential investments. Cost-benefit analyses based on economic development, environmental and social factors are the main instruments used to consider non-economic variables. When considering future trends that will be reflected into the IPA's own standards, carbon neutrality becomes an important driver of investment screening.

## 4 LOOKING FORWARD



### 4.1 SALIENT CHALLENGES AND INTERNATIONAL EXPERIENCES

Unlocking sustainable finance is a highly rewarding, complex task already undertaken by countries in diverse settings, many of which have faced economic, regulatory and institutional barriers similar to those faced by Argentina.

This chapter provides an analysis of Argentina's main barriers to sustainable finance and a selection of case studies to illustrate how other countries have tackled similar challenges. The case studies are based on the international experience of the UN Environment Inquiry, which has identified more than 200 separate measures in 60 countries across banking, capital markets, insurance, investment and the financial system as a whole.

Like every country seeking to promote sustainable finance, Argentina faces both generic and specific barriers related to the delivery of financial services that are aligned with its sustainability objectives. Generic barriers are those characterized by market and policy features that impede or slow down the flow of finance (with or without sustainability benefits). Examples include policy and regulatory risks, credit and capital market risks, lack of access to finance, and maturity mismatches. Addressing these general constraints would help promote sustainable financial markets; however, they fall outside the scope of this report. Instead, this report seeks to address Argentina's specific national challenges.

#### 4.1.1 POLICY AND REGULATORY DISTORTIONS

Generally, sustainability policy and regulatory distortions, market interventions, perverse subsidies, and political instability have been internationally perceived as barriers for FDI and long-term sustainable investments since they hinder the development of efficient and effective markets.

Argentina has started a revision process, which includes the selective phasing out of subsidies and cross-incentives that constrained the efficiency of the market as well as its alignment with long-term development objectives. During the last decade, Argentina has faced pervasive subsidies. For example, fossil fuel subsidies involved 5.6% of the national budget for 2017 and 3.1% for 2018.<sup>100</sup> If the 2017 budget items of the energy sector are analysed, 90% of the items identified in the sector correspond to subsidies for generation of energy through coal, oil, gas, large hydropower and nuclear. While it is important to provide subsidies to those in need, progressively eliminating subsidies to reduce fiscal deficits will also make investments in renewable energy more attractive. The progressive elimination of these policy elements will make investment in clean technologies and renewable energy more attractive since it will reduce the payback period, reducing the upfront CAPEX investment, and increasing the return on investment and the net present value.

Internationally, FDI is being increasingly monitored to assess how sustainability-related policies and regulatory market distortions might impact investments and sustainable development.<sup>101</sup> In the FDI space, MNEs are

increasingly monitoring how sustainability-related policies and regulatory market distortions might impact investments and sustainable development.<sup>112</sup> Taking the mining industry as an example, in Peru, regulations requiring banks to perform due diligence were implemented as a way to correct distortions and protect FDI as a way to overcome conflicts in the mining sector resulting from lax enforcement of local regulations.

Among the main barriers identified to further implement sustainability criteria in credit and investment operations are: the uncertainty in the regulatory framework (68%); the current political and economic landscape (61%); and a lack of understanding about the real impacts on the environment for the clients and their portfolios (48%).

These results show that receiving clear signals from regulators is key to advancing the integration of sustainability into the banking sector. In fact, 81% of the surveyed financial institutions mentioned that having clear signals from financial regulators is key to advancing their understanding of environmental impacts. Better understanding will therefore help leverage the financial system as a tool to promote a more efficient capital allocation for a sustainable economy.

#### **4.1.2 LACK OF SPECIFIC CAPACITY**

Developing country consultations by the Inquiry showed that specific sustainable investments remain dependent on DFIs and are not part of fully commercial and sustainable lending and insurance product portfolios.<sup>113</sup>

The role of local associations (banking, insurance, pension funds and stock exchanges) has proven to be instrumental worldwide in advancing the integration of best practices by different industry players. Examples of this in Latin America are the adoption of voluntary sustainability protocols by the Brazilian, Colombian, Ecuadorian and Mexican banking associations. Globally, the Sustainable Banking Network, a best practice knowledge network for regulators and market associations, helps develop local sustainable finance ecosystems by promoting the interaction of regulators and markets players in specific topics, such as information sharing of publicly available environmental data to promote better environmental risk analysis. In fact, surveyed institutions from the Argentina UNEP FI and CAF 2017 study, representing 67% of the AUM in the banking sector, recognize the importance of developing efficient and effective communication channels among market players, as well as with market regulators and the Ministry of Environment and Sustainable Development, to further advance a sustainability agenda.

International standards, such as the EPs, the Principles for Responsible Investment, the Principles for Sustainable Insurance and others, provide access to best ESG risk managing practices that can help offset risk and improve the quality of lending and investment portfolios. These market-oriented standards provide the tools and help develop the capabilities of local actors. Recognizing the need to adopt a regulatory approach to catalyse sustainable finance, several platforms have emerged in recent years (e.g. the Sustainable Insurance Forum, the Financial Centres for Sustainability network, and the IOSCO Sustainable Finance Working Group). These platforms look to engage regulators and encourage knowledge-sharing, research and collective action. In Argentina, there is little to no adoption of international standards by local banks, insurers and investors.

#### **4.1.3 INSUFFICIENT LONG-TERM LENDING**

Current monetary policy and inflationary targeting aim to reverse negative interest rates and create conditions for banks to promote long-term lending. Banks have an enormous potential for growth. Argentina's banking system can double its credit in relation to GDP over a period of three years, allowing it to get closer to the average level of financial intermediation within the region.<sup>114</sup>

Aside from more generic risk variables (country, market risk, etc.), three elements in combination contribute to this long-term lending barrier: negative real interest rates, the lack of risk offsetting mechanisms (e.g. assets collateral guarantees) and maturity mismatches between the short-term financing of the banking system and the long-term finance needed for projects, particularly sustainable development projects (given the heavily subsidized energy and transport costs). Maturity mismatches with high, short-term funding costs in Argentinian pesos make it difficult to develop long-term project finance.

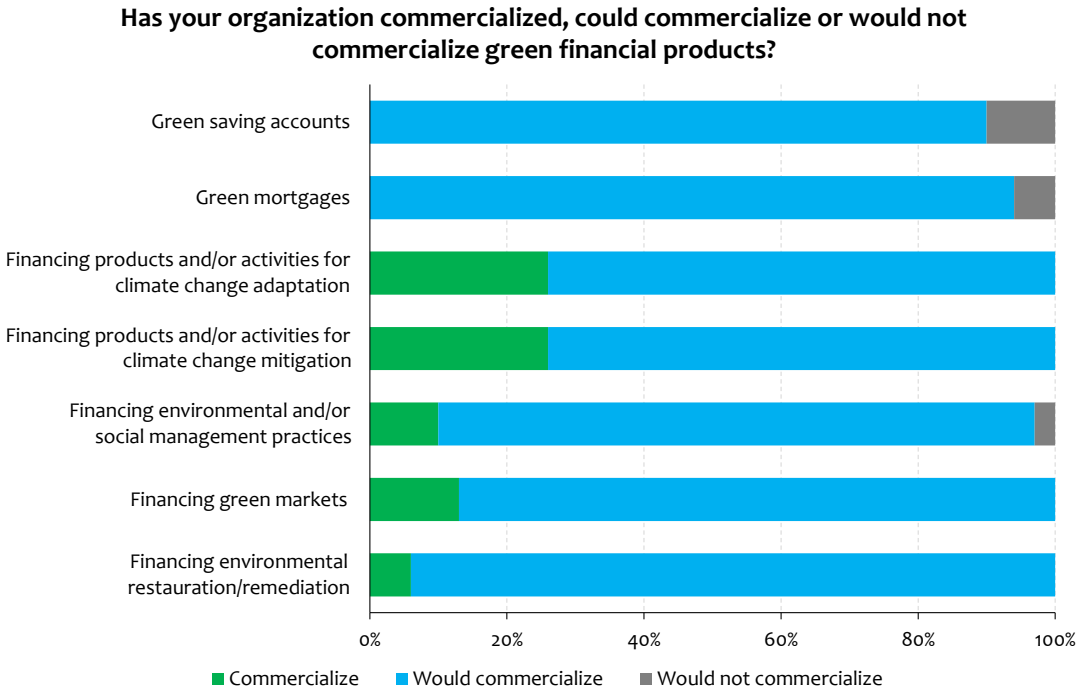
Project finance was seldom done by the banking system in Argentina. Leverage and capital requirement regulations, given the size of local financial institutions, make it harder for local banks to individually finance large projects. In a syndicated loan, there are several lenders and parties arranging the loan, and there are several expenses associated with these loans that increase the cost of financing. Large project finance deals are financed today by FDI, which means that financial institutions are only able to participate in projects at a smaller scale and with shorter time horizons. However, some countries such as Peru have addressed this lending barrier by lowering the capital requirement for banks with a certain percentage of sustainability-related assets in their portfolio.

The current administration in Argentina views project finance as a useful tool for financing enterprise and country needs. Previously, project finance or corporate CAPEX investment/financing was done only out of necessity. Businesses had little incentive to invest because of energy subsidies, market tariffs or restrictions to foreign competition. Corporate leverage was therefore generally low.

**4.1.4 DIFFICULTIES IN MEASUREMENT**

Developing the capabilities to measure sustainable finance effectively allows financial institutions to identify new business opportunities and access new sources of capital. In Argentina, when asked about the development of sustainable financial products and services, banks responded favourably and welcomed the opportunity to develop them, although a small percentage are doing so.

**FIGURE 11: COMMERCIALIZATION OF GREEN FINANCIAL PRODUCTS**



Source: UNEP FI and CAF (2017)



Aside from individual product development by some financial institutions, the financial market in Argentina, as in most countries, shows little capacity to measure sustainable finance needs. In countries where this measurement was done, sustainable finance in financial markets still accounts for approximately 5% of total finance.<sup>15</sup> The lack of established methodologies and systems to measure sustainable finance does not allow for opportunity identification and demand-driven product development. Setting up the basis for a sustainable finance system, as other countries have done (e.g. Brazil, China, Colombia), depends largely on developing the right capacities for measuring and reporting on sustainable finance.

The lack of a clear definition for sustainable finance or even the standards to ensure the quality of sustainable products can:

- ⦿ Jeopardize the perceived quality of sustainable investments, which reduces consumer trust and lowers the risk appetite of local investors.
- ⦿ Hamper efforts to measure the effectiveness and efficiency in capital flows, thereby preventing the economy from appropriately allocating resources to meet its international commitments.
- ⦿ Hinder efforts to measure the risk-return profiles of green/sustainable projects as compared to non-green/non-sustainable projects.

Measuring and evaluating sustainable finance flows allows for proper demand identification and targeted product development. Several institutions worldwide have recognized the benefits of identifying and reporting on sustainable finance. In fact, one of the main recommendations of the EU High-Level Expert Group on Sustainable Finance was on the development of a sustainable finance taxonomy that provides a shared EU classification of sustainable activities that is applicable for all types of assets and capital allocation.<sup>16</sup>

Appropriate categorization and standardization of sustainable finance information across the financial system will allow it to:<sup>17</sup>

- ⦿ Guide the work done by international promoting agencies to attract not just quantity but quality investments that generate the best economic, social and environmental outcomes.
- ⦿ Increase focus on sustainable reinvestment as a strategy for upgrading performance of existing assets to reduce the effects of climate change and pressure over other ecosystem boundaries, while also promoting improved labour and human rights standards.
- ⦿ Shape policies that can impact the risk/return profiles (e.g. through measures requiring internalization of externalities).
- ⦿ Generate public and private sector backing for green/sustainable projects.

From a national perspective, measuring and evaluating sustainable finance flows provides better access to international sustainability-related finance from funds such as the Green Climate Fund (GCF) at a lower cost of capital and with access to technical assistance. It also helps to align DFI portfolios to international commitments (e.g. the Paris Agreement, the 2030 Agenda).

#### **4.1.5 LACK OF PUBLICLY AVAILABLE ENVIRONMENTAL DATA AND ENVIRONMENTAL RISK ANALYSIS CAPACITY**

Limited environmental data on borrowers prevents banks and other financial market actors from properly evaluating and developing standardized methodologies to assess the materiality of environmental risks in lending and investment portfolios.

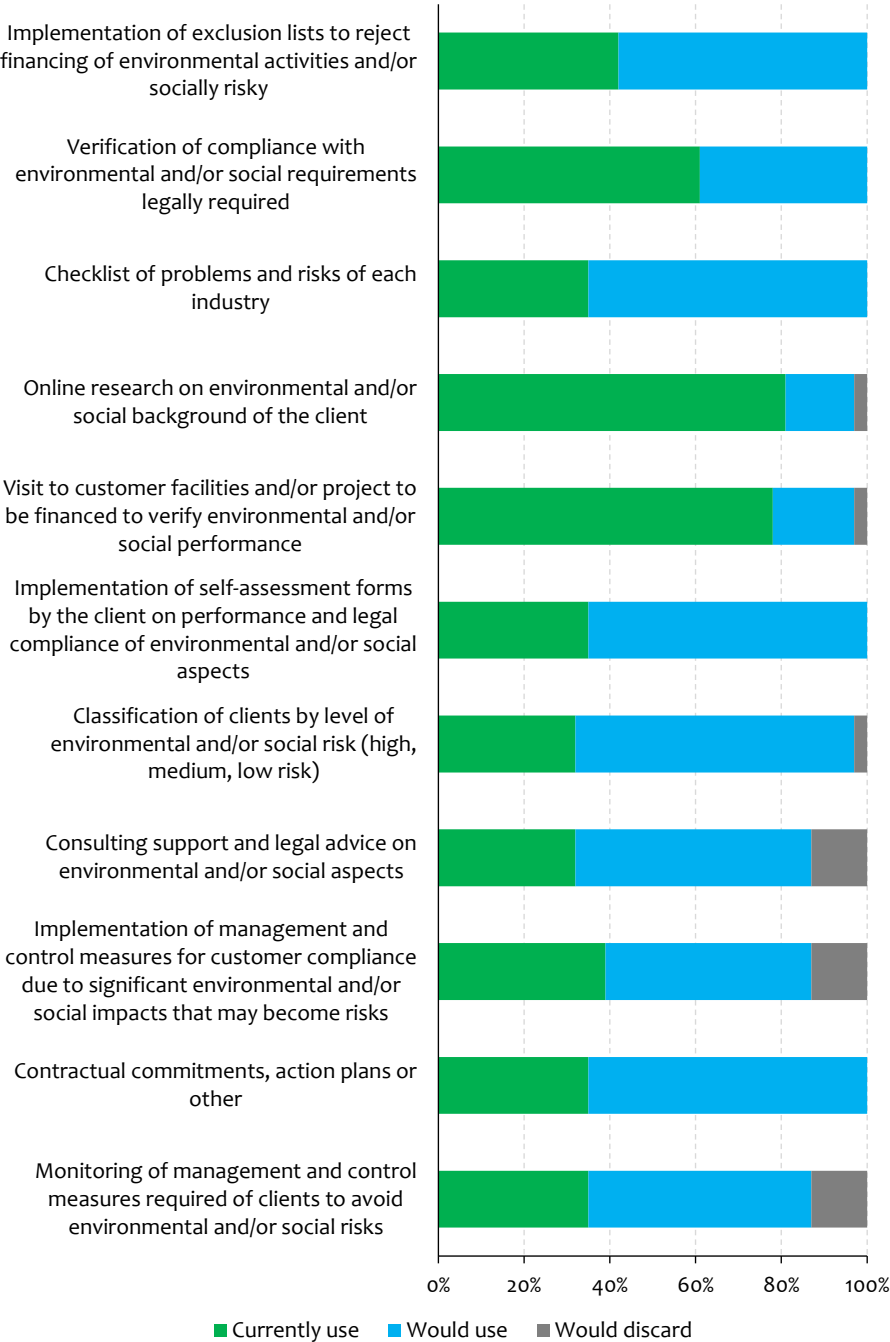
A frequent problem that hinders a clear understanding of the risk valuation for environmental and climate change impacts is the weak communication channels and information transfer mechanisms between the financial system and the national agencies that develop environmental risk information (e.g. drought/



flood maps). International experience, through the work done by the G20 Green Finance Study Group (GFSG), has shown that this is an area of increasing interest for the financial system in several countries, often driven by the financial institutions. The lack of environmental data prevents the integration of green or sustainability criteria into investment and credit decision-making, and ultimately prevents the development of differential credit lending. It also does not allow for a proper risk pricing by insurance companies and a more efficient capital expenditure.

As seen in Figure 12, financial institutions use a number of mechanisms to perform their social and environmental due diligence. Most rely on site visits to the client facilities and desk research about the client’s previous environmental and social risk history, indicating there is an important opportunity to develop the appropriate channels of communication.

**FIGURE 12: TOOLS, MECHANISMS AND PROCESSES IN LENDING AND INVESTMENT PROCESSES**



Source: UNEP FI and CAF (2017)



## 4.2 LEVELS OF ACTION FOR PROMOTING SUSTAINABLE FINANCE

A sustainable financial system is a necessary foundation for Argentina to address its national development priorities and meet its international commitments enabling a long-term and inclusive prosperity for its people.

Unlocking sustainable finance is not only about capital allocation to more sustainable investment – it is also about managing ESG-related risks and pricing these risks appropriately in order to reallocate capital accordingly. It is also about promoting the institutional, policy and regulatory market arrangements that allow the risks to be better priced and capital to be reallocated to more sustainable investments.

As the current administration rethinks Argentina's financial system and economy, looking to strengthen the country's relationship with the world of international finance, the moment offers a unique opportunity to look at what other countries have done to make their financial system more sustainable.

Considering the barriers mentioned in the previous chapter, a range of alternatives can be considered to develop an enabling sustainable investment ready environment.

### 4.2.1 ENABLING POLICY CONDITIONS AND PROCEDURES

Enabling policies designed to increase investment to economic, social and environmental welfare is a key component to an environmentally and socially sustainable economy; especially if private sector efforts to achieve the SDGs are to be effective.

The challenge of creating an effective investment environment touches upon virtually all policy areas – fiscal, public sector management, competition, environment, labour and so forth. Improving policy in all these areas helps countries reap the full benefits of foreign direct investment.<sup>18</sup> China provides a good case of a system-level approach to developing green finance (see Box 6) and India has been building steps during the past two years to develop a sustainable financial system (see Box 7). In Japan, the development of stewardship and corporate governance codes at the national level has contributed to increasing the profile of environmental issues for Japanese financial institutions.

Argentina has taken important steps to coordinate policy responses at the national level by integrating interministerial efforts to sustainable development (e.g. the setup of the National Commission on Climate Change and of the National Council for Coordination of Social Policies).

Internationally, several efforts have emerged to break silos between financial regulators and market players with the ministries of energy and environment. These efforts could serve Argentina as guidance for further actions in the following areas:

- Facilitation of knowledge-sharing on environmental and financial risk
- Improved measurement of green finance activities and their impacts
- Mapping and phasing out pervasive real economy subsidies that constitute a barrier to the adoption of CAPEX investment in more resource-efficient technologies
- Targeting the use of public finance to scale up private financial capital into green investments

For example, the UK government established a Green Finance Taskforce, which plans to create the world's first green financial management standards. The new, voluntary green financial management standards are intended to assure prospective investors in the UK's low-carbon economy of the integrity of green-labelled investments. The UK government has also officially endorsed the recommendations of the FSB TCFD, making it government policy to encourage all listed companies to implement the voluntary framework.

## BOX 6. CASE STUDY: CHINA – ESTABLISHING THE GREEN FINANCIAL SYSTEM

The understanding and exploration of green finance has been a gradual, evolving process in China. Environmental factors, at one time, were not considered an important variable that should affect the decision-making of financial institutions. But since the mid-1990s, China's financial policies have gradually imposed restrictions on certain high-pollution and energy-intensive industries in response to requirements of the central government on economic restructuring and upgrade as well as environmental protection.<sup>119</sup>

China's Banking Regulatory Commission began in 2007 by developing Green Credit Guidelines that evolved from an initial principle-based approach to a standardized, metrics-driven performance assessment. In 2014, the People's Bank of China established a Green Finance Task Force resulting in 14 recommendations across four broad themes: information flows, legal frameworks, fiscal incentives and institutional design.<sup>120</sup> Following these key initiatives, and an estimate that the annual investment of at least RMB2 trillion (US\$320 billion) is needed to achieve China's environmental targets during the 13th Five-Year Plan (2015-2020),<sup>121</sup> China made rapid progress in developing a green financial system to demonstrate a systematic approach with a series of high-level policies, aiming to address the enormous environmental challenges and ecological civilization as national strategic priorities.

The policy signal reached its peak in August 2016, right before the G20 Leaders' Summit in Hangzhou. China's State Council approved the 'Guidelines for Establishing the Green Financial System' – issued jointly by seven ministerial agencies, including the People's Bank of China, which provide essential next steps for implementing the overall strategy of promoting an ecologically balanced civilization, how to mobilize and incentivize more social (or private) capital to invest in green sectors, while restricting investment in polluting sectors. The Guidelines set forth 35 measures and incentives that can be grouped into the following nine aspects and categories:<sup>122,123</sup>

- Establish the Green Financial System
- Develop Green Lending
- Enhance the Role of the Securities Market in Supporting Green Investment
- Launch Green Development Funds and Mobilize Social Capital through Public and Private Partnerships (PPP)
- Develop Green Insurance
- Improve Environmental Rights Trading Market and Develop Related Financing Instruments
- Support Local Government Initiatives to Develop Green Finance
- Promote International Cooperation in Green Finance
- Prevent Financial Risks and Strengthen Implementation.

## BOX 7. CASE STUDY: INDIA IS BUILDING A SUSTAINABLE FINANCIAL SYSTEM

Financing India's goals for inclusive and sustainable development requires more low-cost and longer-term capital. Raising incomes for the 800 million people living on less than US\$2 per day, creating livelihoods for the 12 million people entering the workforce every year, and regenerating the natural resource base at a time of climate change require innovative approaches to sustainable finance.

Over the past two years, there has been a marked shift in both market and policy efforts to tackle this challenge. In 2016, a joint report produced by the Federation of Indian Chambers of Commerce and Industry and the UN Environment Inquiry outlined a set of steps, which were welcomed by the government.<sup>124</sup> Through a set of interlocking actions, India is scaling up finance for renewable energy.

- **Priority Sector Lending:** The Reserve Bank of India requires banks to allocate 40% of their lending to priority sectors in the Indian economy, including agriculture, infrastructure, education and SMEs.<sup>125</sup> In April 2015, the priority sector lending (PSL) framework was expanded to include lending for decentralized renewable energy.<sup>126</sup> The aim was to encourage lending for renewables, which would increase access to energy and would not necessarily be financed through market forces alone.
- **Market Commitments:** As part of its effort to increase India's renewable energy capacity to 175GW by 2022, the Ministry of New and Renewable Energy has agreed on voluntary financing commitments with 40 banks to finance 78GW of renewable energy capacity by 2019.<sup>127</sup>
- **Green Bonds Guidelines:** As of October 2016, the Indian market represents the seventh largest green bond issuer worldwide, with a total issuance of US\$2.7 billion. A key factor in the growth of this market has been the role of the development of disclosure requirements by the securities regulator (SEBI).<sup>128</sup> The guidelines build on international best practice, provide greater certainty for issuers and investors, and will be a catalyst for market development.

Building on this momentum, the Reserve Bank of India is in the process of formulating a roadmap for green finance in India.

#### 4.2.2 DE-RISKING AND REDUCING COST OF CAPITAL

A wide array of tools to de-risk investments has been developed internationally. Many of them are presented in *The Green Investment Report* commissioned by the Green Growth Action Alliance (G2A2). The objective of the G2A2 is “to develop breakthrough financing models for green growth and target public money to leverage larger private sector investments into green infrastructure projects.”<sup>129</sup> Argentina has implemented many measures to reduce its sovereign risk. These measures have been recognized by credit rating agencies who have upgraded Argentina's credit rating in the past 1.5 years. Additionally, a proven way to reduce the risk and cost of capital is through the promotion of best-in-class corporate governance codes and ESG disclosure requirements or guidance. Argentina has taken several steps on this front through the Societal Governance Code (Resolution 606), which recommends (comply or explain) that listed companies publish a sustainability report and address risk management (identification, measurement, administration and disclosure). But a lot can be learned from the international experience of countries such as Brazil, which launched the BOVESPA Stock Exchange's Corporate Sustainability Index (ISE) in 2005, or Mexico, which launched its 'IPC Sustentable' in 2011. Globally, according to data from Global Initiative for Sustainability Rating, there are more than 440 indices, with most of them (more than 279) covering ESG issues. These indices allow listed companies to gain visibility and liquidity by increasing the engagement with long-term passive investors tracking these indices.

Additionally, several journals state that adoption of reporting standards has led to an improved performance in the environmental and social standards adopted by companies. This, in turn, increases MSCI ESG score vis-à-vis the All Country World Index (ACWI) and further promotes investor trust in the country.

Another key component to de-risking long-term finance, and in particular green finance by FIs, is a friendlier legal and guarantee context that can allow FIs to have a longer security time horizon.

While regulators and the banking sector are looking to promote financial deepening and long-term lending such as mortgage lending, the judicial system needs to put forth appropriate guarantee collecting procedures to promote credit expansion and long-term lending. Today, available financial intelligence tools allow for predicting with a fair amount of security people's credit behaviour. However, when dealing with SMEs or family companies, there is more risk, and sometimes projects fall off the pipeline as they are not able to find reasonable guarantee provisions.

Work being done by the government with mutual guarantee companies such as Garantizar provides risk-sharing facilities that can be granted to banks to promote credit issuance. Guarantee funds are regularly composed of funding from state entities and private entities.

For SME lending, fixed asset collateral carries a substantial risk. There are several risks if the credit goes into default such as: employees taking over the factory and forming a coop, or a judge ruling in favour of the company and allowing it to continue operating.

In relation to the risk associated with environmental factors, recent studies<sup>130</sup> conducted as part of knowledge input papers to the GFSG, showcase several emerging alternatives and trends for financial institutions to better evaluate their clients' performance. Many of these emerging trends are facilitated by publicly available environmental data from government entities (*i.e.* ministries of the environment) to banks. This type of information, not usually managed by financial institutions, serves as an input not only to analyse the credits at an individual project level but also to better analyse the whole credit portfolio to emerging risks such as drought or floods.

According to a study done by UNEP FI and CAF, among the activities that are not frequently performed by FIs – but those they would be willing to consider as part of future assessments – are:

- Verification list of the problems and risks pertinent to each industry
- Classification of clients by levels of risk
- Contractual obligations on behalf of clients.

#### **BOX 8. STRENGTHENING RISK MANAGEMENT**

Starting in 2008, Brazil's central bank has introduced new requirements limiting landowner access to subsidized rural credit to those who can demonstrate compliance with environmental legislation. In 2014, BACEN introduced requirements (Resolution 4.327) for socio-environmental factors to be mainstreamed into the governance of risk by banks and other financial institutions

### **4.2.3 PROMOTE CONDITIONS FOR THE DEVELOPMENT OF SPECIFIC PRODUCTS AND SERVICES**

As stated before, the development of sustainable financial products is tied to DFIs, and while some banking associations are showing interest, there is a clear need to combine market-driven approaches with policies, regulations and standards to reduce reliance on pioneering individuals or institutions.<sup>131</sup> As has been the experience in many countries, asset-based financing of new technologies such as solar water heaters, solar panels for distributed generation systems, micro-grid wind turbines will all require the development of specific insurance products to accompany the credit disbursement as a risk offsetting mechanism.

When asked about the development of 'green' financial products and services, financial institutions responded favourably and welcomed the opportunity to develop them, although only a small percentage of the institutions are doing so.

Green or sustainable tagging enables the expansion of financing investments with positive environmental attributes and strengthens the resilience of loan portfolios.<sup>132</sup> It allows for the improvement of market disclosure in light of initiatives such as the FSB TCFD. It helps to understand the underlying asset's energy performance, fuel efficiency or environmental standards,<sup>133</sup> which can in turn help in the creation of assets for the capital markets, creating additional liquidity for banks. Finally, it can provide additional insights for evaluating risks and allowing for better access to long-term funding from DFIs.

One of Argentina's challenges is how to secure long-term financing through the securitization of credit portfolios. Green bonds provide an alternative for doing this, allowing the country to diversify its investor base, accessing institutional investors with longer-term mandates. Much of Argentina's planned investment in infrastructure could classify for green bonds (notably energy efficiency, public transport, renewable energy, water and sanitation). Today, only two sub-national bonds have been issued as 'green'. Developing the capacity to identify a pipeline of potential green bond issuances in corporations or through portfolio securitization from financial institutions is key to further developing the market, as the lack of knowledge awareness on sustainable capital market products impacts directly on the investor demand. Important for this effort will be the introduction of national definitions on what can be considered green and the development of local market of second opinion providers.

#### **BOX 9. CASE STUDY: BRAZIL – STEPS TO SUSTAINABLE FINANCE**

- **Measuring green lending:** The Brazilian Federation of Banks, FEBRABAN, has completed one of the world's first estimates of the amount of loans and credit financing needed for a green economy. At the end of 2015, 17% of total corporate loans were allocated to the green economy, with sustainable transport being the largest category.<sup>134</sup> This exercise is rooted in a Low-Carbon Economy Database that provides the foundations for more comprehensive 'green tagging' of loans in Brazil.
- **Mobilizing the green bond market:** In 2016, FEBRABAN, with the Brazilian Business Council for Sustainable Development (CEBDS), issued voluntary recommendations to grow the green bond market, based on global best practice tailored to Brazil's circumstances.<sup>135</sup> Since the guidelines were brought out, the number of Brazilian issuance has more than doubled.

#### **4.2.4 NETWORK AND ECOSYSTEM DEVELOPMENT**

Considering the important role played by the private sector in the deployment of capital to achieve the SDGs and given that financial markets in Argentina are dominated by the banking system, banking associations could play a central role in promoting a sustainable finance ecosystem development.

The role of banking associations as promoters of sustainability best practices in the financial system has been well established in Latin America through the pioneering work done by FEBRABAN, Asobancaria and ABM in Brazil, Colombia and Mexico, respectively.

Divided and segmented banking associations (ABA, ADEBA, ABAPPRA) make it harder for local banks to leverage the sustainability experience of their international peers. Recently established sustainability working groups within associations could act as convening agents to establish a working agenda or provide a roadmap to guide international cooperation efforts/platforms. As technical capacity development cooperation from DFIs starts to flow into the country, a sustainable finance roadmap and a naturally convening agent will provide a key guidance to capitalizing the capacity-building assistance provided by these learning networks and foster dialogue with financial regulators to promote product development to finance. Another key lever on the banking side are state-owned banks that manage most

the banking system's credit portfolio. Additionally, the incorporation of the Government Secretary of Environment and Sustainable Development into the Sustainable Banking Network could facilitate this process providing the necessary tools and capacity within the Government Secretary to engage with the banking sector.

On the capital markets front, the recently constituted ByMA as an aggregation of different exchanges provides a stronger ecosystem to help more Argentinian companies go public, which will likely increase foreign and local investment in the country. As in other countries, stock exchanges also provide an excellent platform for promoting the best sustainability practices in public companies. The creation of the Nuevo Mercado and the higher reporting standards it will require, in addition to the Sustainable Stock Exchanges initiative membership, can position the stock exchange as a key sustainable market developer:

- Promoting the issuance of ESG reporting guidance
- Providing a platform for appropriate development of a green bond market, setting together with CNV and the Treasury the appropriate listing requirements.

The work carried out by the network of Financial Centres for Sustainability (FC4S) provides an additional example on how to exchange experience and take common action on shared priorities to accelerate the expansion of green and sustainable finance.

#### **BOX 10. CASE STUDY: MEXICO – STRENGTHENING THE SUSTAINABLE FINANCE AGENDA**

With the aim of strengthening the commitment to the sustainable finance agenda, the Mexican Stock Exchange installed the Sustainable Finance Committee. This goes beyond the stock exchange and includes as its members the most relevant financial market associations representing the insurance sector, capital markets, pension funds and the banking sector.

#### **4.2.5 BUILDING SKILLS AND CAPACITY IN SUSTAINABLE FINANCE AMONG PRACTITIONERS AND REGULATORS**

There is an increasing interest and momentum developing around the role that financial institutions and regulators should play in financing a sustainable real economy. Increased skills and capacity-building among practitioners and regulators has been identified by the G20 SFSG as an option to promote sustainable finance and address some of the barriers identified. During the last couple of years, several initiatives have been developed, mainly in capital markets but also in the banking and insurance sectors.

On the risk side, understanding the evolving legislation and the financial implications for loan portfolios of potential lender environmental liability is still at an early stage and remains a major roadblock.

In this regard, the lack of capability to green-tag credit portfolios or screen them limits the capacity for financial institutions to identify underlying risks and report on them, as well as their capacity to identify developing market needs in the transition to a low-carbon economy.

#### **4.2.6 SUSTAINABLE DIGITAL FINANCE AND TECHNOLOGY-DRIVEN FINANCIAL INCLUSION**

Digital finance and financial technology have emerged as powerful disruptors that are rapidly reshaping the financial sector on a global scale.<sup>136</sup> It may be laying the groundwork for the future infrastructure of the financial system to lower costs, thereby increasing access, transparency and accountability.

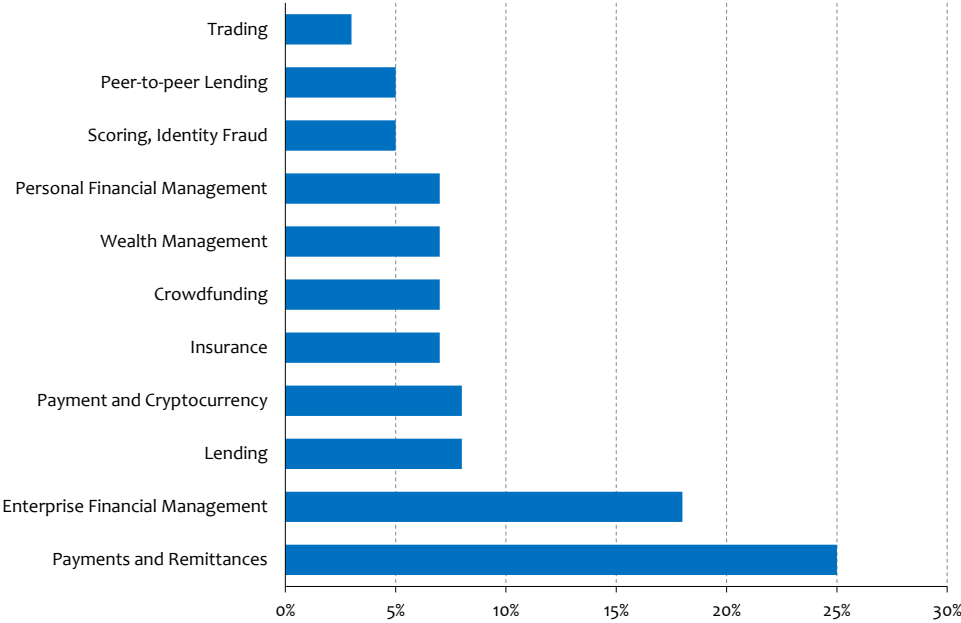
Digital finance benefits have been well documented.<sup>137</sup> It can cut costs for financial institutions, improve the quality and usability of financial services, enhance accessibility, and lower financing costs for users while at the same time improve the quality of portfolios. Other well-documented benefits of digital finance are the incorruptibility, transparency and traceability<sup>138</sup> in transactions in both the financial system and in the real economy.<sup>139</sup> Therefore, it allows for better ‘know your customer’ implementation of anti-money-laundering procedures and early warnings. A ‘cashless’ society transacting in the digital ecosystem has its benefits as it pertains to avoiding, reducing, and controlling money laundering and terrorism finance.

Through these advances and applications, digital finance could help accelerate the development of sustainable (green and inclusive) financial markets,<sup>140</sup> and help realign finance to support sustainable development. Combining digital finance with agtech, energy applications, IoT, geolocation, environmental monitoring, and other data tech can lead to better pricing of financial risks of the real economy and quicken the integration of the financial system with the real economy.<sup>141</sup>

Digital finance and fintech are being used and combined with several fields that require some degree of intermediation with financial markets. A recent report by the Inquiry, *Fintech and Sustainable Development: Assessing the Implications* presents a range of examples from renewable energy funding and pollution reduction to environmental policy design and citizen engagement.

These technologies are transforming the financial services ecosystem from the outside in, and blockchain is rewriting the financial services rulebook by changing the way people lend and invest. Argentina, according to Finnovista’s fintech radar, is a market where “more and more recognized platforms in the Fintech and start-up ecosystems are being created.”<sup>142</sup> The study has identified 60 start-ups in this space, which in number account for more than the total number of FIs operating in the system. The table below details the areas where these start-ups are operating.

**FIGURE 13: COMPOSITION OF FINTECH START-UP ECOSYSTEM IN ARGENTINA**



Source: Finnovista (2018)

Worldwide, there is an enormous market potential in fintech and digital finance. According to Goldman Sachs’ equity research team, the market was estimated in US\$4.7 trillion<sup>143</sup> and has been experiencing an accelerated growth with fintech funding topping US\$57.9 billion in the first half of 2018.<sup>144</sup> Reaping the benefits of digital finance is crucial for emerging economies such as Argentina, as it could increase its GDP by as much as 6% by 2025 versus a business as usual scenario.<sup>145</sup>





## 5 THE STRATEGIC OPPORTUNITY AHEAD



It is clear sustainable finance is evolving globally from niche to mainstream.<sup>146</sup> Countries are increasingly recognizing that needs and opportunities for sustainable finance will not be met without active engagement to promote financial system shifts, including through market innovations, voluntary standards, public-private partnerships, and supporting policy, regulatory and fiscal measures.<sup>147</sup>

Recognizing the mainstreaming of the sustainable finance agenda and the impending need to consider social issues alongside environmental ones, G20 members under Argentina's presidency expanded the remit of the Green Finance Study Group to become the Sustainable Finance Study Group. The SFSG defined sustainable finance as "financing as well as related institutional and market arrangements that contribute to the achievement of strong, sustainable, balanced and inclusive growth, through supporting directly and indirectly the framework of the Sustainable Development Goals (SDGs)."

The G20 has allowed Argentina to better understand the main challenges and opportunities for scaling up sustainable finance in the country. It has also allowed it to learn how other G20 countries, other countries in the region, and diverse players, have engaged to promote financial systems shifts that encourage a higher degree of alignment of the financial system to sustainable development.

This report was developed during Argentina's G20 Presidency with the purpose of taking stock and further promoting a discussion on the future development of Argentina's financial system and its alignment with the international sustainable development agenda. As such, it provides a directional estimate and identifies an additional US\$12 billion of annual private sector sustainable investment opportunity.

The stocktake shows that there is an increasing level of awareness by different players – both regulators and market players – in the local financial system. However, it identifies a need for greater coordination of efforts to deliver the full breadth of benefits from current initiatives.

Sustainable finance has the potential to help address many of the country's most urgent priorities by promoting the alignment of the financial system with the needs of a sustainable real economy for Argentina's future generations. Experience in many of these countries has shown that rapidly changing economic and regulatory environments – at the local, national and international levels – need to be addressed ensuring the breaking of silos that effectively helps unlock private sustainable finance. With this in mind, Argentina can consider how to work out a platform that delivers practical, implementable actions to unlock sustainable capital by encouraging feedback and participation from both public and private actors, with an active learning process and supporting forward-looking planning. At the same time, this platform could be connected internationally to allow the country to capitalize on global good practices as well as to share its own path and lessons learned with others.

The experience gained through leading the G20 and developing this report will be only the first stepping stone in a journey that leads to a profound and comprehensive transformation of the role of finance in securing the future that we want and need, and leaves no one behind.

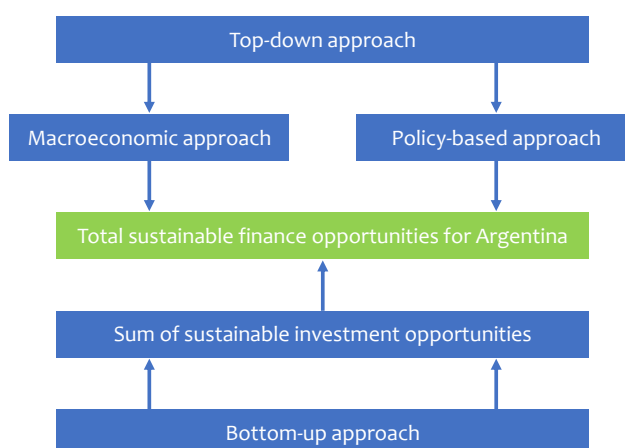


# ANNEX 1: SUSTAINABLE FINANCE NEEDS

The following sections aim to provide a directional estimate of the sustainable finance investment gap and needs in Argentina. The estimation of sustainable finance needs remains largely in an embryonic stage. Estimates may vary based on the methodology used and the set of assumptions considered in the calculations. In addition, when considering SDG-related investment needs, estimates are usually not MECE (mutually exclusive, collectively exhaustive) which means that calculation of investment needs for some SDGs might be lacking or investments related to a particular SDG might have co-benefits and positive or negative spillovers associated with other SDGs.

Given that SDGs provide an intricate network of development objectives with complex causal and feedback loops, the collective calculations presented here, despite the methodological and definitional challenges, only intent to provide a directional estimate for the value of sustainable finance investment needs in Argentina.<sup>148</sup>

**FIGURE 14: SUSTAINABLE FINANCE NEEDS FRAMEWORK**



Source: Adapted from Lee, C.F. and Baral, P. (2017).<sup>149</sup>

## 5.1 SUSTAINABLE FINANCE NEEDS: TOP-DOWN APPROACH

Our top-down approximation to calculating sustainable investment needs is based both on macroeconomic data and estimates linked to international policy commitments.

### 5.1.1 MACROECONOMIC APPROACH

International experience can provide useful insights, particularly when countries have already undertaken the process of evaluating their sustainable finance needs. Early modelling exercises from UN Environment on the investment needs for a transition to a green economy estimate an incremental 2% of global gross domestic product (GDP).<sup>150</sup> Later assessments by the World Economic Forum Green Growth Action Alliance estimate additional investment requirements in a green growth scenario as 1.4% of GDP. More recently, in 2015, China estimated green investment needs would exceed 3% of China's GDP. Later in 2017, the Research Bureau of the People's Bank of China said it would be even higher, at 4.0-5.3%<sup>151</sup> with a growing consensus from domestic green finance experts that the upper end is more likely.<sup>152</sup>

Unlike green finance, sustainable finance (SDG financing) encompasses a broader range of financing needs and opportunities that exceed those of climate finance or green finance. Within Latin America, there are no comprehensive estimates for investment needs for the 2019-2030 timeframe.<sup>153</sup>

While there has not been much analysis on sustainable finance investment needs, the Sustainable Development Solutions Network (SDSN) has performed an extensive costing analysis for the implementation of the Agenda 2030. Additionally, India has performed an Agenda 2030 costing exercise.

While recognizing the limitations of taking a comparable approach to the estimation of the SDG needs for Argentina, India's experience in costing the SDGs can be used as a proxy to help provide a directional conservative estimate for the sustainable finance needs in Argentina.

India's annual investment needs to achieve the SDGs are estimated at US\$960 billion (2014/15 prices).<sup>154</sup> Argentina's estimated GDP will be, on average, 14.6% of India's between 2020 and 2030. Applying 14.6% to India's annual SDG need of US\$960 billion, Argentina would need US\$140 billion (in 2014/15 prices) annually between 2019 and 2030. At today's prices, that would be approximately US\$150 billion.

Finally, if we consider the differences in growth rates since Argentina's will grow much slower (3.5%) than India's (7.4%) over the period 2019-2030, and apply a 40% of this estimation as Argentina's annual SDG needs over the period 2019-2030, then the SDG needs for Argentina would be of **US\$60 billion** per year.

### 5.1.2 POLICY-BASED APPROACH

The SDGs set the agenda for common action across a broad and universal policy agenda that extends beyond just green finance. The SDGs provide a wider lens through which one can calculate the scale of capital reallocation implied by international policy agreements.<sup>155</sup> There have been numerous attempts to estimate the specific investment needs and try to capture the complexities, casual loops and positive and negative spillovers of the investment needs. Probably one of the most comprehensive works has been done by the SDSN whose estimates suggest that financing the SDGs globally will require annual investments of around US\$6 trillion or US\$72 trillion over 12 years.<sup>156</sup> Estimates from UNCTAD are in the order of US\$5-7 trillion per year. Total SDG investment amounts then vary between US\$60 trillion to US\$84 trillion over the period 2019-30.<sup>157</sup> In this context, developing and emerging economies will have a higher share of SDG investment need. However, if we assume that the US\$6 trillion annual investment need is evenly spread across all economies and we consider that Argentina's share of global GDP is 0.78%,<sup>158</sup> then Argentina's annual SDG investment need would be in the order of **US\$47 billion**.

Another way of looking at it would be through the lens of the SDG needs of high-income and upper middle-income countries (Argentina is a high-income country according to the latest World Bank classification). As summarized in the table below, Argentina's GDP is 0.87% of the combined GDP of high-income and middle-income countries in 2017. For lack of 2030 GDP projection for all high-income and upper middle-income countries, we could use 2017 data as the reasonable basis for estimating Argentina's GDP contribution to this bloc (as the percentage contribution will not change much in 2030). Argentina's SDG investment need would, therefore, be 0.87% of high-income and upper middle-income and countries' need, which would be about **US\$40 billion** a year.

**TABLE 4: ARGENTINA'S SDG INVESTMENT NEEDS – POLICY BASED APPROACH**

World Bank Country Classification	Combined GDP in 2017 (current US\$)	Combined SDG Needs (current US\$)
High Income	73.643 trillion <sup>159,160</sup>	4.49 trillion <sup>161</sup>
Upper Middle Income		
Lower Middle Income	7.053 billion <sup>162</sup>	1.51 trillion <sup>163</sup>
Low Income		
Argentina's Annual SDG Investment Needs	<b>40 billion</b> (6.3% of 2017 GDP)	

## 5.2 SUSTAINABLE FINANCE NEEDS: BOTTOM-UP APPROACH

The bottom-up approach to calculating sustainable investment needs was based on estimation across nine different sectors (e.g. transportation, telecommunications, energy, water and sanitation, agriculture and forestry, health, education, real estate, and travel and tourism) that have been identified by the government of Argentina as key to unlock future growth in the country. The bottom-up approach generates an annual sustainable investment requirement of **US\$51 billion** for Argentina, which is equivalent to 8% of the country's 2017 GDP. According to another estimate from the Centre for the Implementation of Public Policies Promoting Equity and Growth (CIPPEC), Argentina needs to double its current investment in infrastructure to 6.6% of GDP in order to promote future growth and the competitiveness of its main industries.<sup>164</sup> Table 5 summarizes sustainable finance investment needs across the nine different sectors.

**TABLE 5: AVERAGE ANNUAL SUSTAINABLE INVESTMENT REQUIRED BETWEEN 2019 AND 2030 (IN 2018 US\$ BILLION) – BOTTOM-UP APPROACH**

Sector	GIH	Other sources <sup>165</sup>	Total
Road	21.16		21.16
Railway	1.28		1.28
Aviation	0.32		0.32
Maritime/Ports	0.74		0.74
<b>Transportation Total</b>	<b>23.5</b>		<b>23.5</b>
<b>Telecommunications</b>	<b>3.72</b>		<b>3.72</b>
Power Transmission and Development	1.69		1.69
Power Generation (hydropower and biofuels)	0.6		0.6
Power Generation (other renewable energy)		1.58	1.58
<b>Energy Total</b>	<b>2.29</b>	<b>1.58</b>	<b>3.87</b>
<b>Water and Sanitation</b>	<b>2.02</b>		<b>2.02</b>
<b>Agriculture and Forestry</b>		<b>2</b>	<b>2</b>
<b>Health</b>	<b>3.19</b>		<b>3.19</b>
<b>Education</b>	<b>1.06</b>		<b>1.06</b>
<b>Real Estate</b>		<b>6</b>	<b>6</b>
<b>Travel and Tourism</b>		<b>5.4</b>	<b>5.4</b>
<b>Total</b>			<b>50.76</b>

Source: Authors, primarily based on Global Infrastructure Hub (GIH)<sup>166</sup>



## 6 ANNEX 2: SUSTAINABLE FINANCE FLOWS

This section looks at current flows of sustainable finance in Argentina. Data gaps, definitional inconsistencies and methodological complexities create challenges in quantifying sustainable finance flows, and these issues are explored in greater detail under each financial source below. Although often used interchangeably, the term ‘finance’ is used here to describe the raising of capital. This finance is then deployed as ‘investment’. ‘Funding’ describes revenue that can be used to pay back finance.

In order to determine the sustainable finance opportunities in Argentina, we first consider the 2017 public expenditure and other sustainable finance flows that are aligned with one or more of the 17 SDGs. These total approximately US\$14.1 billion in 2017. Table 6 summarizes these flows and compares the total to the annual investment needs of US\$51 billion between 2019 and 2030. From current levels, total annual sustainable investment will need to increase by 260% to ensure that the Argentinian sustainable investment opportunities are met by 2030.

**TABLE 6: CURRENT SUSTAINABLE FINANCE FLOWS (2017, IN US\$ BILLION)**

<b>Yearly sustainable investment needs</b>	<b>50.8</b>
Sustainable finance flows (2017)	
Public finance*	5.5
Institutional investment (Public)	0.1
Private	
Commercial loans	3.2
Corporate bonds	0.3
Institutional investment	0.1
Foreign direct investment	4.9
<b>Total</b>	<b>14.1</b>
<b>Yearly increase in finance required to meet the need</b>	<b>36.7</b>

\* Public finance refers to government/municipal/state expenditure.

Source: Authors

Each of the financial sources is discussed below in detail.

### 6.1 PUBLIC FINANCE<sup>167</sup>

The capital budget expenditure of Argentina for the fiscal year 2017 was analysed to determine the 2017 investment in sustainable assets by the government (see Table 7). Public spending for the year 2017 accounts for a total of US\$5.5 billion.<sup>168</sup> Public spending in Argentina has ranged from 66 to 74% of total investment in infrastructure over the last couple of years, except in 2010 when public spending on infrastructure reached 80%.<sup>169</sup>

**TABLE 7: ESTIMATED SDG-ALIGNED PUBLIC FINANCE FLOWS (2017)**

	AR\$ billion	US\$ million (2018 Prices) <sup>170</sup>	% SDG Assumed
<b>Social Service</b>			
Health	1.7	60.0	100%
Promotion and Social Assistance	8.9	318.7	100%
Social Security	1.0	34.8	100%
Education and Culture	21.2	764.6	100%
Science and Technology	4.0	143.8	100%
Job	0.3	9.5	100%
Housing and Urbanism	29.5	1060.7	100%
Drinking Water and Sewerage	16.2	582.6	100%
<b>Economic Services</b>			
Energy	4.8	172.5	50% <sup>171</sup>
Communications	1.9	69.1	100%
Transport	54.3	1955.7	100%
Ecology and Environment	3.1	110.8	100%
Agriculture/Farming	0.6	21.6	50% <sup>172</sup>
Industry	1.6	56.9	80% <sup>173</sup>
Commerce, Tourism and Others	1.5	54.1	100%
Insurance and Finance	0.01	0.3	100%
<b>TOTAL: US\$5.5 billion</b>			

Source: Ministry of Finance (2017), Government of Argentina<sup>174</sup>

## 6.2 PRIVATE FINANCE

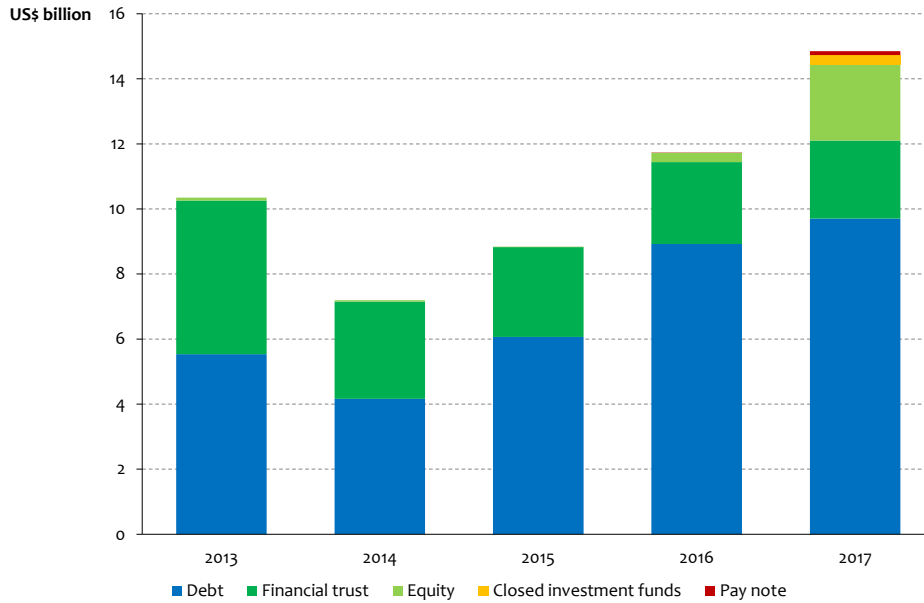
A lack of data from the private sector makes it difficult to provide estimates of current level of finance. The analysis used international experience, particularly countries that have developed capacities to track sustainable finance-related flows, to draw useful insights into making estimations. Corporate bonds, commercial bank lending and institutional investors were considered the main sources of private finance in Argentina.

### 6.2.1 CORPORATE BONDS

With a record amount since 2001, the primary market channelled financing for the equivalent of US\$15,698 million in 2017.<sup>175</sup> Of these issuances, 99.5% were done by large corporates. Corporate bond issuance accounted for 61.8% (US\$9.7 billion) of primary market securities in 2017 (Figure 15).



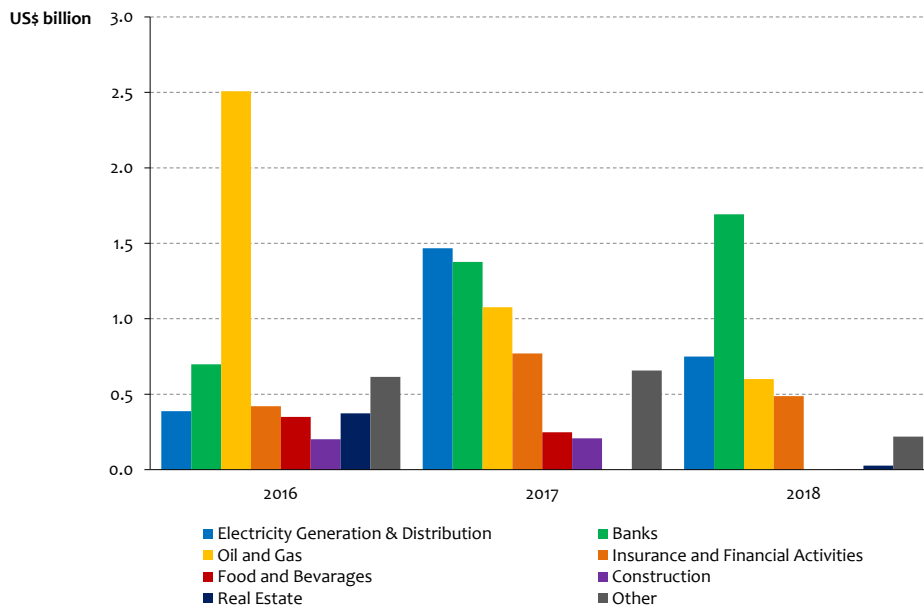
**FIGURE 15: CORPORATE FINANCING THROUGH CAPITAL MARKETS (US\$ MILLION)**



Source: Argentinian Institute of Capital Markets (IAMC)

As seen in Figure 16, the banking sector led the bond issuance in 2017 and is leading in 2018. The oil and gas sector led bond issuance in 2016.

**FIGURE 16: CORPORATE BOND ISSUANCE BY SECTOR**



Source: Argentinian Institute of Capital Markets (IAMC)

The corporate bond issuance from May 2016 to May 2017 was analysed<sup>176</sup> using the World Bank data<sup>177</sup> to determine the percentage of SDG alignment in the use of proceeds from corporate bonds. Based on this analysis, we are assuming that 23% of corporate bond issuance is aligned to SDG goals.

Considering the 2017 corporate bond issuance of US\$9.7 billion, and assuming an average corporate bond tenor of 7 years<sup>178</sup> and an estimated growth rate of corporate bond issuance as 3.5% (the same as the projected average GDP growth rate of the country between 2019 and 2030), the gross corporate bond (sustainable) issuance in 2017 would be **US\$0.3 billion**.

## 6.2.2 COMMERCIAL BANK LENDING

The financial system in Argentina is dominated by banks and the Sustainability Guarantee Fund. Financial deepening is at a 15-year high and credit to the private sector (25% increase year over year), currently accounts for around 15% of GDP, which is small compared to a regional average of around 45%.<sup>179</sup> Home mortgages have played an important role in the current expansion of credit (199% increase year over year), presenting an important opportunity to promote sustainable finance (e.g. low-income housing, energy efficiency, renewable energy).

The total domestic credit to private sector by banks as of 2017 was US\$86 billion<sup>180</sup> in Argentina. Assuming commercial banks contributed to 60% of this portfolio, total credit to the private sector by commercial banks as of 2017 would be US\$60 billion, of which 23% is assumed to have financed sustainable assets (the same percentage used as for corporate bonds above). Further assuming an average commercial loan tenor of five years and an estimated growth rate of commercial loan as 15% (while credit to private sector has been growing at rates above 25%, a conservative 15% growth was considered for the growth in sustainable loans, adjusted for inflation), the gross commercial bank lending in 2017 that financed sustainable assets would be **US\$3.2 billion**.

## 6.2.3 INSTITUTIONAL INVESTORS

The major institutional investors in Argentina are pension funds, mutual funds, insurance companies, and venture capital and private equity firms. The total AUM by public pension funds (ANSES) amounts to US\$50 billion.<sup>181</sup> Ten per cent of the total assets (i.e. US\$5 billion) are assumed to have been invested in infrastructure (both debt and equity), of which 50% is further assumed to have been aligned with SDG goals. That would make a total of US\$2.5 billion as sustainable finance investment by public pension funds. With an investment time horizon of 30 years, the annual sustainable finance investment by pension funds amounts to US\$83 million. With a growth rate of 3.5%, the gross sustainable annual investment in 2017 would be approximately US\$86 million (further approximated to **US\$0.1 billion**).

According to Moody's,<sup>182</sup> the total AUM by the two main institutional investors in the local market – mutual funds and the public pension fund (ANSES) – was US\$88 billion at year-end 2017, of which only US\$5.3 billion (or 6% of the total) was invested in infrastructure. Subtracting the contribution of pension funds from above, total infrastructure investment by mutual funds would be US\$0.3 billion. Using the same set of assumptions as above and applying the same calculation, the gross sustainable annual investment by mutual funds in 2017 would be approximately US\$10 million.

According to the World Bank,<sup>183</sup> an estimated 60 to 80% of the insurance market in Argentina caters to the insurance for automobiles and workers' compensation. The contribution to sustainable assets could, therefore, be assumed to be negligible.

Finally, since Argentina is the growing hotspot for venture capital (VC) and private equity (PE) investment in South America, the analysis assumes that an annual investment of US\$100 million could be a reasonable estimate. Since most of the innovative companies that are funded by VCs/PEs contribute to SDGs, a significant percentage of the total VC/PE investment could be SDG-aligned. For simplicity, the contribution of mutual funds, insurance companies, and venture capital and private equity companies has been rounded off to **US\$0.1 billion** of sustainable investment.

## 6.2.4 FOREIGN DIRECT INVESTMENT

The net FDI in 2017 in Argentina was US\$10.7 billion.<sup>184</sup> The FDI inflow to the country has however been erratic over the last couple of years. The analysis has therefore taken a simple average of the last five years, which comes out to US\$7 billion. Assuming 70% of net FDI is invested in sectors that contribute towards

the achievement of the SDGs in Argentina (oil and gas, mining and carbon-intensive manufacturing excluded),<sup>185</sup> the net SDG-aligned annual FDI would be **US\$4.9 billion**.

As well as capital flows from within the financial system, FDI can be a critical source of fixed capital formation. While there might be regional differences, FDI is the single core component of private sector financial flows into developing countries, averaging 42% of private inflows, with portfolio flows, remittances, and other investments (e.g. bank loans) making up the remainder.<sup>186</sup> In Argentina, current level of FDI inflow as a percentage of GDP is 1.9%<sup>187</sup> while the regional average is 4.5%. In order to reach the regional average, Argentina needs to attract US\$25 billion per year in FDI.



## 7 ANNEX 3: LENDER ENVIRONMENTAL LIABILITY IN ARGENTINA

Emerging regulations suggest that Argentina might be transitioning from a ‘Non-existent LEL’, as previously identified by the UN Environment Inquiry, to a strong ‘Potential LEL’.

Article 41 of Argentina’s Constitution sets strong fundamentals by determining the right to “a healthy, balanced environment, suitable for human development and for productive activities to meet present needs without compromising those of future generations” and the “duty to preserve it”. It also establishes the obligation to recompose environmental damage and highlights the role of authorities to “provide the protection of this right, the rational use of natural resources, the preservation of natural and cultural heritage and biological diversity, and environmental information and education.”

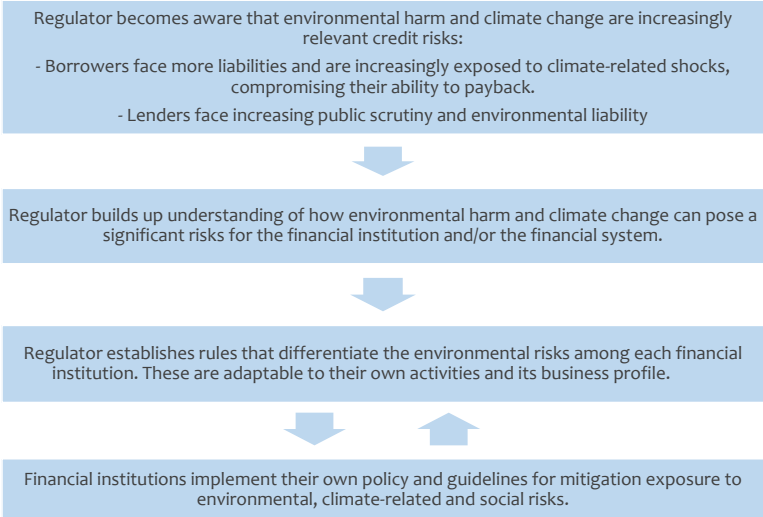
While Article 41 generates a legal obligation to the person generating the environmental damage, it does not carry a legal obligation to the lenders as it looks to those directly responsible for generating the environmental damage.

However, as Argentina looks to establish the appropriate measures needed to become an OECD member, it enacted the Criminal Liability Law to comply with the OECD Convention to Combat Bribery. The Criminal Liability Law establishes the criminal liability regime applicable to private legal entities, whether with national or foreign capital, with or without state participation, for crimes of: a) bribery and influence peddling; b) negotiations incompatible with the exercise of public functions; c) collusion; d) illicit enrichment of officials and employees; and e) false reporting. This law establishes both direct and indirect responsibility for the crimes mentioned.

In addition, recognizing that crime has changed since the enactment of the Criminal Code of the Nation in 1921, President Macri set up the Commission for the Reform of the Penal Code (Decree 103/17) to present of a draft bill to reform the penal code. In the Preliminary Draft of the Penal Code Reform, fifteen new titles were added, including crimes against humanity, contamination and damage to the environment (Article 444), and crimes against biodiversity (Article 446). The bill also incorporates the responsibility of the legal entity, both direct and indirect, for new criminal actions.

These laws set the basis for lenders to be potentially legally liable for crimes related to the environment or biodiversity. Figure 17 shows a generic process followed by regulators that have engaged in the social and environmental risk agenda.

**FIGURE 17: GENERIC REGULATOR INVOLVEMENT IN LENDER SOCIAL AND ENVIRONMENTAL RISKS**



# ENDNOTES

- 1 Global Compact (2015). The SDG Industry Matrix for Financial Services [https://www.unglobalcompact.org/docs/issues\\_doc/development/SDGMatrix\\_FinancialSvcs.pdf](https://www.unglobalcompact.org/docs/issues_doc/development/SDGMatrix_FinancialSvcs.pdf)
- 2 UNCTAD (2014). World Investment Report 2014: Investing in the SDGs <http://unctad.org/en/pages/PublicationWebFlyer.aspx?publicationid=937>
- 3 UNFCCC (2015). The Paris Agreement, Article 2 [http://unfccc.int/files/home/application/pdf/paris\\_agreement.pdf](http://unfccc.int/files/home/application/pdf/paris_agreement.pdf)
- 4 G20 Sustainable Finance Study Group (2018). Sustainable Finance Synthesis Report. Forthcoming.
- 5 Schoenmaker, D. (2017). Investing for the common good: a sustainable finance framework. [http://bruegel.org/wp-content/uploads/2017/07/From-traditional-to-sustainable-finance\\_ONLINE.pdf](http://bruegel.org/wp-content/uploads/2017/07/From-traditional-to-sustainable-finance_ONLINE.pdf)
- 6 Zadek, S. And Kharas, H. (2018). Aligning financial system architecture and innovation with sustainable development. <http://unepinquiry.org/wp-content/uploads/2018/08/TF6-T2o-Sustainable-Finance-Policy-Brief-FINAL.pdf>
- 7 Financial Times (2017). The ethical investment boom. <https://www.ft.com/content/9254dfd2-8e4e-11e7-a352-e46f-43c5825d>
- 8 <https://www.climatebonds.net/>
- 9 <https://www.climatebonds.net/>
- 10 Whiley, A. (2017). Breaking: 2017 Green Bond Record! \$100bn in global issuance reached during COP23. <https://www.climatebonds.net/2017/11/breaking-2017-green-bond-record-100bn-global-issuance-reached-during-cop23>
- 11 <http://www.sseinitiative.org/sse-partner-exchanges/list-of-partner-exchanges/>
- 12 McDaniels, J. and Robins, N. (2018). Greening the Rules of the Game. UN Environment Inquiry. [http://unepinquiry.org/wp-content/uploads/2018/04/Greening\\_the\\_Rules\\_of\\_the\\_Game.pdf](http://unepinquiry.org/wp-content/uploads/2018/04/Greening_the_Rules_of_the_Game.pdf)
- 13 UN Environment Inquiry/World Bank Group (2017). Roadmap for a Sustainable Financial System. <http://unepinquiry.org/publication/roadmap-for-a-sustainable-financial-system/>
- 14 People's Bank of China (2016). Guidelines for Establishing the Green Financial System. <http://www.pbc.gov.cn/english/130721/3133045/index.html>
- 15 Jouahri, A. (2016). Opening remarks at the presentation of the financial sector's roadmap for contributing to sustainable development and the fight against climate change. <http://www.bkam.ma/en/content/view/full/352587>
- 16 UN Environment Inquiry/MATTM (2017). Financing the Future. Report of the National Dialogue on Sustainable Finance. [http://unepinquiry.org/wp-content/uploads/2017/02/Financing\\_the\\_Future\\_EN.pdf](http://unepinquiry.org/wp-content/uploads/2017/02/Financing_the_Future_EN.pdf)
- 17 Singapore Institute of International Affairs/UN Environment Inquiry (2017). Collaborative Initiative for Green Finance in Singapore: Singapore as a Green Finance Hub for ASEAN and Asia. <http://unepinquiry.org/wp-content/uploads/2017/11/Collaborative-Initiative-for-Green-Finance-in-Singapore.pdf>
- 18 European Commission (n.d.). Sustainable Finance. [https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance\\_en](https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance_en)
- 19 G20 (2018). Finance Ministers and Central Bank Governors Communiqué, 19-20 March 2018. [http://unepinquiry.org/wp-content/uploads/2018/10/Communique\\_FMCBG\\_Meeting\\_March\\_2018.pdf](http://unepinquiry.org/wp-content/uploads/2018/10/Communique_FMCBG_Meeting_March_2018.pdf)
- 20 In order to further reflect the delivery of the SDGs and the implementation of the 2030 Agenda through its integration into international economic and financial policies, the Secretary-General looks for the UN to enhance its work with other intergovernmental platforms such as the G20 and the G7.
- 21 Figueres, C., Schellnhuber, H.J., Whiteman, G., Rockström, J., Hobley, A. and Rahmstorf, S. (2017). Three years to safeguard our climate. <https://www.nature.com/news/three-years-to-safeguard-our-climate-1.22201>
- 22 Carney, M. (2016). Resolving the climate paradox. <https://www.bankofengland.co.uk/speech/2016/resolving-the-climate-paradox>
- 23 G20 Sustainable Finance Study Group (2018). Sustainable Finance Synthesis Report. Forthcoming.
- 24 UN DESA (2015). World population projected to reach 9.7 billion by 2050. <http://www.un.org/en/development/desa/news/population/2015-report.html>
- 25 Green growth definition adopted by the Secretary-General of the United Nations.
- 26 Green Growth Action Alliance (2013). The Green Investment Report: The Ways and Means to Unlock Private Finance for Green Growth. [http://www3.weforum.org/docs/WEF\\_GreenInvestment\\_Report\\_2013.pdf](http://www3.weforum.org/docs/WEF_GreenInvestment_Report_2013.pdf)
- 27 United Nations (2015). Addis Ababa Action Agenda. [http://www.un.org/esa/ffd/wp-content/uploads/2015/08/AAAA\\_Outcome.pdf](http://www.un.org/esa/ffd/wp-content/uploads/2015/08/AAAA_Outcome.pdf)
- 28 Niculescu, M. (2017). Impact investment to close the SDG funding gap. <http://www.undp.org/content/undp/en/home/blog/2017/7/13/What-kind-of-blender-do-we-need-to-finance-the-SDGs.html>
- 29 Numbers are based on secondary research and will evolve with macroeconomic conditions and the rapidly evolving financing conditions for green technologies, policy landscape correcting real economy price distortions, consumer preferences or other variables.
- 30 According to OECD data the three-year average of ODA received by Argentina (2014-2016) is US\$9.3 million (2015 prices). We consider this to be a small amount and have therefore not taken into account international development aid in our calculations.
- 31 The Sustainability Guarantee Fund is a government-managed investment portfolio of more than US\$60 billion. More information is provided in the Institutional Investor section.



- 32 Financial Stability Board (2017). Peer Review of Argentina. <http://www.fsb.org/2017/08/peer-review-of-argentina/>
- 33 Financial Stability Board (2017). Peer Review of Argentina. <http://www.fsb.org/2017/08/peer-review-of-argentina/>
- 34 Galaz, V., Crona, B., Dauriach, A., Jouffray, J.-B., Österblom, H., Fichtner, J. (2018) Tax havens and global environmental degradation. <https://go.nature.com/2PH8j2j>
- 35 Financial Stability Board (2017). Peer Review of Argentina. <http://www.fsb.org/2017/08/peer-review-of-argentina/>
- 36 Financial Stability Board (2017). Peer Review of Argentina. <http://www.fsb.org/2017/08/peer-review-of-argentina/>
- 37 BCRA (2018). Informe de Estabilidad Financiera – Primer semestre de 2018. [http://www.bcra.gob.ar/PublicacionesEstadisticas/IEF\\_018.asp](http://www.bcra.gob.ar/PublicacionesEstadisticas/IEF_018.asp)
- 38 Financial deepening is at a 15-year high.
- 39 Argentina’s financial system (credit to GDP) accounts for less than 15% of GDP, while in Chile it accounts for about 70%. The region has an average of 38% and developed economies 160%.
- 40 Szewach, E. (2017). El sinceramiento desafía al sistema financiero. <http://www.lanacion.com.ar/1977752-el-sinceramiento-desafia-al-sistema-financiero>
- 41 The average loan tenure for home mortgages has been 20 years, while private sector deposits it has been below one year, exhibiting a clear maturity mismatch.
- 42 BCRA (2018). Informe de Estabilidad Financiera – Primer semestre de 2018. [http://www.bcra.gob.ar/PublicacionesEstadisticas/IEF\\_018.asp](http://www.bcra.gob.ar/PublicacionesEstadisticas/IEF_018.asp)
- 43 FGS (2018). Presentation to the FGS Board. [http://fgs.anses.gob.ar/archivos/secciones/Consejo%20FGS\\_Ago%202018.pdf](http://fgs.anses.gob.ar/archivos/secciones/Consejo%20FGS_Ago%202018.pdf)
- 44 <https://www.cafci.org.ar/estadisticas.html>
- 45 CAFCI (2018). Informe mensual sobre la industria de fondos comunes de inversión abiertos. [https://www.cafci.org.ar/Publica/Estadistica/Resumenes/Mensual/20180601\\_Resumen\\_Industria.pdf](https://www.cafci.org.ar/Publica/Estadistica/Resumenes/Mensual/20180601_Resumen_Industria.pdf)
- 46 Financial Stability Board (2017). Peer Review of Argentina. <http://www.fsb.org/2017/08/peer-review-of-argentina/>
- 47 BCRA (2018). Informe de Estabilidad Financiera – Primer semestre de 2018. [http://www.bcra.gob.ar/PublicacionesEstadisticas/IEF\\_018.asp](http://www.bcra.gob.ar/PublicacionesEstadisticas/IEF_018.asp)
- 48 In 2005, the government imposed restrictions to foreign capital flows stipulating that direct investment should stay in the country for at least one year.
- 49 Bloomberg (2017). Argentina elimina una disposición que frenaba las inversiones. <http://www.elmostrador.cl/mercados/2017/01/05/argentina-elimina-una-disposicion-que-frenaba-las-inversiones/>
- 50 [www.ratesustainability.org](http://www.ratesustainability.org)
- 51 Conversations with Argentina’s largest banks suggest that reputational risks, in light of the 2001 banking and economic crisis, are being considered although they might not be regulated by the BCRA.
- 52 BCRA (2018). El BCRA incentiva la cobertura climática en los créditos agropecuarios. <http://www.bcra.gov.ar/Institucional/DescargaPDF/DownloadPDF.aspx?id=648>
- 53 BCRA (n.d.). Política financiera y crediticia. [http://www.bcra.gob.ar/SistemasFinancierosYdePagos/Politica\\_financiera\\_crediticia.asp](http://www.bcra.gob.ar/SistemasFinancierosYdePagos/Politica_financiera_crediticia.asp)
- 54 ON24 (2016). ¿Cómo se conjugan Facebook y el sistema financiero argentino? <http://www.on24.com.ar/tecnologia/15499/cmo-se-conjugan-facebook-y-el-sistema-financiero-argentino>
- 55 Volz, U. (2017). On the Role of Central Banks in Enhancing Green Finance. [http://unepinquiry.org/wp-content/uploads/2017/02/On\\_the\\_Role\\_of\\_Central\\_Banks\\_in\\_Enhancing\\_Green\\_Finance.pdf](http://unepinquiry.org/wp-content/uploads/2017/02/On_the_Role_of_Central_Banks_in_Enhancing_Green_Finance.pdf)
- 56 BIS (2009). Issues in the Governance of Central Banks. [https://www.bis.org/publ/othp04\\_2.pdf](https://www.bis.org/publ/othp04_2.pdf)
- 57 BIS (2011). The future of central banking under post-crisis mandates. <https://www.bis.org/publ/bppdf/bispap55.pdf>
- 58 Scott, M., van Huizen, J. and Jung, C. (2017). The Bank of England’s response to climate change. <https://www.bankofengland.co.uk/quarterly-bulletin/2017/q2/the-banks-response-to-climate-change>
- 59 Marqués Sevillano, J.M. and Romo González, L. (2018). The risk of climate change in financial markets and institutions: international challenges, measures and initiatives. [https://www.bde.es/f/webbde/GAP/Secciones/Publicaciones/InformesBoletinesRevistas/RevistaEstabilidadFinanciera/18/MAYO/Articulo\\_Marques\\_Romo-en.pdf](https://www.bde.es/f/webbde/GAP/Secciones/Publicaciones/InformesBoletinesRevistas/RevistaEstabilidadFinanciera/18/MAYO/Articulo_Marques_Romo-en.pdf)
- 60 Le Loirier, A. (2017). Catching up? The financial sector and the challenges of climate change. <https://www.banque-france.fr/en/intervention/catching-financial-sector-and-challenges-climate-change>
- 61 Regelink, M., Reinders, H.J., Vleeschhouwer, M. and van de Wiel, I. (2017). Waterproof? An exploration of climate-related risks for the Dutch financial sector. [https://www.dnb.nl/en/binaries/Waterproof\\_tcm47-363851.pdf?2017110615](https://www.dnb.nl/en/binaries/Waterproof_tcm47-363851.pdf?2017110615)
- 62 McDaniels, J. and Robins, N. (2018). Greening the Rules of the Game. UN Environment Inquiry. [http://unepinquiry.org/wp-content/uploads/2018/04/Greening\\_the\\_Rules\\_of\\_the\\_Game.pdf](http://unepinquiry.org/wp-content/uploads/2018/04/Greening_the_Rules_of_the_Game.pdf)
- 63 The Dutch central bank’s mandate on financial stability highlights its commitment to a system that is resilient and contributes to sustainable economic growth. Likewise, its price stability mandates highlight the need for it to contribute towards sustainable prosperity.
- 64 [https://www.bb.org.bd/aboutus/bbinb\\_dtl.php](https://www.bb.org.bd/aboutus/bbinb_dtl.php)
- 65 UNEP FI is a member-driven organization working to grow sustainable financial markets that support a stable economy, environment and society in the long term. In it, leading financial institutions are exploring new ways to position financial products and services towards a low-carbon, sustainable economy. The network helps financial institutions keep abreast of the latest trends, tools, policies and practices to address challenges and develop opportunities for resilient growth.



- 66 UNEP FI and CAF (2017). Sustainable Development in the Argentine Banking System. <http://www.unepfi.org/publications/banking-publications/el-desarrollo-sostenible-en-el-sistema-bancario-de-argentina/>
- 67 79% said that they had someone specifically in charge of managing the implementation of the system.
- 68 University of Cambridge Institute for Sustainability Leadership (CISL) (2018). Sailing from different harbours: G20 approaches to implementing the recommendations of the Task Force on Climate-related Financial Disclosures. <https://www.cisl.cam.ac.uk/resources/publication-pdfs/cisl-tcfd-report-2018.pdf>
- 69 UNEP FI and CAF (2017). Sustainable Development in the Argentine Banking System. <http://www.unepfi.org/publications/banking-publications/el-desarrollo-sostenible-en-el-sistema-bancario-de-argentina/>
- 70 Sampaio, R.S., Diniz, E., Maristrello Porto, A.J. and Martins Lopes, L.D. (2016). Lenders and Investors Environmental Liability: How Much is Too Much? [http://unepinquiry.org/wp-content/uploads/2016/04/Lenders\\_and\\_Investors\\_Environmental\\_Liability.pdf](http://unepinquiry.org/wp-content/uploads/2016/04/Lenders_and_Investors_Environmental_Liability.pdf)
- 71 Sampaio, R.S., Diniz, E., Maristrello Porto, A.J. and Martins Lopes, L.D. (2016). Lenders and Investors Environmental Liability: How Much is Too Much? [http://unepinquiry.org/wp-content/uploads/2016/04/Lenders\\_and\\_Investors\\_Environmental\\_Liability.pdf](http://unepinquiry.org/wp-content/uploads/2016/04/Lenders_and_Investors_Environmental_Liability.pdf)
- 72 Robins, N. and Sweatman, P. (2017). Green Tagging: Mobilising Bank Finance for Energy Efficiency in Real Estate. [http://unepinquiry.org/wp-content/uploads/2017/12/Green\\_Tagging\\_Mobilising\\_Bank\\_Finance\\_for\\_Energy\\_Efficiency\\_in\\_Real\\_Estate.pdf](http://unepinquiry.org/wp-content/uploads/2017/12/Green_Tagging_Mobilising_Bank_Finance_for_Energy_Efficiency_in_Real_Estate.pdf)
- 73 The Professional Council in Economic Sciences of Argentina (“FACPE”) is the professional technical body that dictates the national financial reporting, accounting and auditing standards. In its Technical Resolution No. 36, the Council established the criteria for the preparation and presentation of the Social Balance, including the Guidelines for the Elaboration of the Sustainability Reports of the Global Reporting Initiative (GRI), which is the most recognized international model.
- 74 Current members of the WGS include representatives from institutions in Brazil, China, Dubai (UAE), India and Morocco. More members are expected to join.
- 75 Includes the relevant ecosystem, such as the regulatory approach, market infrastructure and architecture, incentive structures, and public and private sector collaboration.
- 76 Jong, H.N. (2017). OJK to launch first green bond mechanism. <http://www.thejakartapost.com/news/2017/02/23/ojk-to-launch-first-green-bond-mechanism.html>
- 77 Hui, C. (2017). MAS to offset cost of issuing green bonds with new grant scheme. <https://www.channelnewsasia.com/news/business/mas-to-offset-cost-of-issuing-green-bonds-with-new-grant-scheme-8603578>
- 78 <http://www.sseinitiative.org/about/>
- 79 Deutsche Börse Group (2017). Deutsche Börse to launch sustainable finance initiative. <http://deutsche-boerse.com/dbg-en/media-relations/press-releases/Deutsche-Boerse-to-launch-Sustainable-Finance-Initiative/2955802>
- 80 German Council for Sustainable Development (2011). German Sustainability Code. <http://deutsche-boerse.com/dbg-en/sustainability/reporting/german-sustainability-code>
- 81 <http://www.lseg.com/sustainable>
- 82 Borsa Italiana (2017). First green bond lists on Borsa Italiana. <http://www.borsaitaliana.it/borsaitaliana/ufficio-stampa/comunicati-stampa/2017/bondenel.en.htm>
- 83 Infrastructure funds are structured similarly to real estate investment trusts (REITs), using funds gathered from investors to acquire assets and then sharing profits. For further information, please refer to: <http://www.jp.co.jp/english/equities/products/infrastructure/outline/>
- 84 According to data from PRI, asset owners’ involvement in the selection and monitoring of external managers has increased 31% and 25% respectively. Currently, 86% of PRI asset owner signatories are considering ESG criteria in the selection of external managers and 78% are doing so when monitoring their performance.
- 85 PRI (2018). Annual Report 2018 – The PRI in numbers. <https://www.unpri.org/annual-report-2018/how-we-work/the-pri-in-numbers>
- 86 PRI (2018). Annual Report 2018 – The PRI in numbers. <https://www.unpri.org/annual-report-2018/how-we-work/the-pri-in-numbers>
- 87 PwC (n.d.). Managing millennial money. <https://www.pwc.com/us/en/industries/financial-services/library/managing-millennial-money.html>
- 88 Ministère de la Transition écologique et solidaire (2018). Le label transition énergétique et écologique pour le climat. <http://www.developpement-durable.gouv.fr/label-transition-energetique-et-ecologique-climat#e2>
- 89 Ministère de la Transition écologique et solidaire (2018). Le label transition énergétique et écologique pour le climat. <http://www.developpement-durable.gouv.fr/label-transition-energetique-et-ecologique-climat#e2>
- 90 Husson-Traore, A-C. (2016). SRI: the French government creates official labels for financial products. <http://www.novethic.com/responsible-investment-news/sri-the-french-government-creates-official-labels-for-financial-products.html>
- 91 SSN (2018). Microseguros de salud: un nuevo instrumento de inclusión social. <https://www.argentina.gob.ar/noticias/microseguros-de-salud-un-nuevo-instrumento-de-inclusion-social-0>
- 92 <https://www.sustainableinsuranceforum.org/about>
- 93 SSN (2018). Foro de Seguro Sostenible en Río de Janeiro. <https://www.argentina.gob.ar/noticias/foro-de-seguro-sostenible-en-rio-de-janeiro>
- 94 SSN (2018). El desarrollo económico inclusivo: una prioridad en la agenda de la SSN. <https://www.argentina.gob.ar/noticias/el-desarrollo-economico-inclusivo-una-prioridad-en-la-agenda-de-la-ssn>



- 95 Ministerio de Producción y Trabajo (n.d.). Acceder al beneficio fiscal para inversores. <https://www.argentina.gob.ar/acceder-al-beneficio-fiscal-para-inversores>
- 96 SSN (2018). Hacia un nuevo modelo de supervisión basado en riesgos. <https://www.argentina.gob.ar/noticias/hacia-un-nuevo-modelo-de-supervision-basado-en-riesgos>
- 97 While the banking industry has, for example, developed the Equator Principles as its ESG standard for project finance – a specific type of financing – there is no equivalent in the insurance industry of an ESG standard for any line of business.
- 98 Principles for Sustainable Insurance (n.d.). Global guidance on the integration of environmental, social and governance risks into insurance underwriting. <http://www.unepfi.org/psi/underwriting-esg-risks/>
- 99 Burke, M., Hsiang, S. and Miguel, T. (2015). Global Non-linear Effect of Temperature on Economic Production. <https://web.stanford.edu/~mburke/climate/map.php>
- 100 Bacani, B. (2018). Brazil becomes world's first insurance market to commit to climate risk transparency. <https://www.linkedin.com/pulse/brazil-becomes-worlds-first-insurance-market-commit-climate-bacani/>
- 101 Principles for Sustainable Insurance (2018). Rio declaration on climate risk transparency by the Brazilian insurance industry. <http://www.unepfi.org/psi/wp-content/uploads/2018/05/Rio-declaration-on-climate-risk-transparency-English.pdf>
- 102 Sustainable Development Goal 11.
- 103 Bank of England Prudential Regulation Authority (2015). The impact of climate change on the UK insurance sector. <http://www.bankofengland.co.uk/pru/Documents/supervision/activities/pradefra0915.pdf>
- 104 Oceana and Principles for Sustainable Insurance (2017). Global insurers unite to cut financial lifeline to pirate fishing. <http://www.unepfi.org/psi/wp-content/uploads/2017/10/PSI-Oceana-press-release.pdf>
- 105 <http://globalfishingwatch.org/> is promoting ocean sustainability through greater transparency by using remote sensing technology to visualize, track and share data about global fishing activity in near real time.
- 106 <http://pcrafi.sopac.org/>
- 107 OECD (2002). Foreign Direct Investment for Development. <https://www.oecd.org/investment/investmentfordevelopment/1959815.pdf>
- 108 Johnson, L. (2017). Green Foreign Direct Investment in Developing Countries. [http://unepinquiry.org/wp-content/uploads/2017/10/Green\\_Foreign\\_Direct\\_Investment\\_in\\_Developing\\_Countries.pdf](http://unepinquiry.org/wp-content/uploads/2017/10/Green_Foreign_Direct_Investment_in_Developing_Countries.pdf)
- 109 VCC and WAIPA (2010). Investment Promotion Agencies and Sustainable FDI: Moving toward the fourth generation of investment promotion. <http://ccsi.columbia.edu/files/2013/12/fdi.pdf>
- 110 FARN (2018). Los subsidios a los combustibles fósiles en Argentina 2017-2018. <https://farn.org.ar/wp-content/plugins/download-attachments/includes/download.php?id=25392>
- 111 UN Environment Inquiry (2016). Green Finance for Developing Countries: Needs, Concerns and Innovations. [http://unepinquiry.org/wp-content/uploads/2016/08/Green\\_Finance\\_for\\_Developing\\_Countries.pdf](http://unepinquiry.org/wp-content/uploads/2016/08/Green_Finance_for_Developing_Countries.pdf)
- 112 UN Environment Inquiry (2016). Green Finance for Developing Countries: Needs, Concerns and Innovations. [http://unepinquiry.org/wp-content/uploads/2016/08/Green\\_Finance\\_for\\_Developing\\_Countries.pdf](http://unepinquiry.org/wp-content/uploads/2016/08/Green_Finance_for_Developing_Countries.pdf)
- 113 UN Environment Inquiry (2016). Green Finance for Developing Countries: Needs, Concerns and Innovations. [http://unepinquiry.org/wp-content/uploads/2016/08/Green\\_Finance\\_for\\_Developing\\_Countries.pdf](http://unepinquiry.org/wp-content/uploads/2016/08/Green_Finance_for_Developing_Countries.pdf)
- 114 *elEconomista*América.com (2016). El sistema financiero argentino duplicará préstamos en 3 o 4 años. <http://www.eleconomistaamerica.com.ar/economia-eAm-argentina/noticias/782555/09/16/El-sistema-financiero-argentino-duplicara-prestamos-en-3-o-4-anos.html>
- 115 G20 Green Finance Study Group (2018). Green Finance Synthesis Report. [http://unepinquiry.org/wp-content/uploads/2016/09/Synthesis\\_Report\\_Full\\_EN.pdf](http://unepinquiry.org/wp-content/uploads/2016/09/Synthesis_Report_Full_EN.pdf)
- 116 High-Level Expert Group on Sustainable Finance (2018). Financing a Sustainable European Economy. [https://ec.europa.eu/info/publications/180131-sustainable-finance-report\\_en](https://ec.europa.eu/info/publications/180131-sustainable-finance-report_en)
- 117 Johnson, L. (2017). Green Foreign Direct Investment in Developing Countries. [http://unepinquiry.org/wp-content/uploads/2017/10/Green\\_Foreign\\_Direct\\_Investment\\_in\\_Developing\\_Countries.pdf](http://unepinquiry.org/wp-content/uploads/2017/10/Green_Foreign_Direct_Investment_in_Developing_Countries.pdf)
- 118 Gordon, K. (2002). Enabling Conditions for Environmental Sustainability: Private and Public Roles. <http://www.oecd.org/austria/2080741.pdf>
- 119 China Green Finance Taskforce (2015). Establishing China's Green Financial System. UN Environment Inquiry/People's Bank of China. <http://unepinquiry.org/publication/establishing-chinas-green-financial-system/>
- 120 UN Environment Inquiry (2016). Green Finance for Developing Countries: Needs, Concerns and Innovations. [http://unepinquiry.org/wp-content/uploads/2016/08/Green\\_Finance\\_for\\_Developing\\_Countries.pdf](http://unepinquiry.org/wp-content/uploads/2016/08/Green_Finance_for_Developing_Countries.pdf)
- 121 Zhang, C., Zadek, S., Chen, N. and Halle, M. (eds.) (2015). Greening China's Financial System: Synthesis Report. <http://unepinquiry.org/publication/greening-chinas-financial-system/>
- 122 People's Bank of China (2016). The People's Bank of China and six other agencies jointly issue "Guidelines for Establishing the Green Financial System". <http://www.pbc.gov.cn/english/130721/3131759/index.html>
- 123 People's Bank of China (2016). Guidelines for Establishing the Green Financial System. <http://www.pbc.gov.cn/english/130721/3133045/index.html>
- 124 UN Environment Inquiry/FICCI/Koan/NIPFP (2016). Delivering a Sustainable Financial System in India: Final Report. [http://unepinquiry.org/wp-content/uploads/2016/04/Delivering\\_a\\_Sustainable\\_Financial\\_System\\_in\\_India.pdf](http://unepinquiry.org/wp-content/uploads/2016/04/Delivering_a_Sustainable_Financial_System_in_India.pdf)
- 125 <https://www.rbi.org.in/scripts/FAQView.aspx?id=87>
- 126 Reserve Bank of India (2015). Priority Sector Lending-Targets and Classification. <https://www.rbi.org.in/Scripts/NotificationUser.aspx?id=9688&Mode=0>



- 127 <http://2015.re-invest.in/greenenergycommitment.aspx>
- 128 SEBI (2017). Disclosure Requirements for Issuance and Listing of Green Debt Securities. [http://www.sebi.gov.in/legal/circulars/may-2017/disclosure-requirements-for-issuance-and-listing-of-green-debt-securities\\_34988.html](http://www.sebi.gov.in/legal/circulars/may-2017/disclosure-requirements-for-issuance-and-listing-of-green-debt-securities_34988.html)
- 129 Quote by President Luis Calderon.
- 130 Bank of England, UN Environment Inquiry, University of Cambridge Institute for Sustainability Leadership (2017). Enhancing Environmental Risk Analysis in Financial Decision-making. [http://unepinquiry.org/wp-content/uploads/2017/07/Enhancing\\_Environmental\\_Risk\\_Assessment\\_in\\_Financial\\_Decision-making.pdf](http://unepinquiry.org/wp-content/uploads/2017/07/Enhancing_Environmental_Risk_Assessment_in_Financial_Decision-making.pdf)
- 131 UN Environment Inquiry (2016). Green Finance for Developing Countries: Needs, Concerns and Innovations. [http://unepinquiry.org/wp-content/uploads/2016/08/Green\\_Finance\\_for\\_Developing\\_Countries.pdf](http://unepinquiry.org/wp-content/uploads/2016/08/Green_Finance_for_Developing_Countries.pdf)
- 132 Robins, N. and Sweatman, P. (2017). Green Tagging: Mobilising Bank Finance for Energy Efficiency in Real Estate. [http://unepinquiry.org/wp-content/uploads/2017/12/Green\\_Tagging\\_Mobilising\\_Bank\\_Finance\\_for\\_Energy\\_Efficiency\\_in\\_Real\\_Estate.pdf](http://unepinquiry.org/wp-content/uploads/2017/12/Green_Tagging_Mobilising_Bank_Finance_for_Energy_Efficiency_in_Real_Estate.pdf)
- 133 Robins, N., Sweatman, P. and Degen, A. (2016). How green tags could boost finance for energy efficiency. <https://www.environmental-finance.com/content/analysis/how-green-tags-could-boost-finance-for-energy-efficiency.html>
- 134 FEBRABAN (n.d.). The Brazilian Financial System (SFN) and the Green Economy. <https://portal.febraban.org.br/pagina/3114/43/en-us/financial-system-green-economy>
- 135 FEBRABAN (n.d.). Guidelines for Issuing Green Bonds in Brazil. <https://portal.febraban.org.br/pagina/3188/52/en-us/guidelines-issuing-green-bonds>
- 136 Sustainable Digital Finance Alliance (2018). Digital Technologies for Mobilizing Sustainable Finance. [https://docs.wixstatic.com/ugd/3d4f2c\\_6767ef5b999c4e3fa42coe05e6ea2ac3.pdf](https://docs.wixstatic.com/ugd/3d4f2c_6767ef5b999c4e3fa42coe05e6ea2ac3.pdf)
- 137 WEF (2015). The Future of Financial Services. [http://www3.weforum.org/docs/WEF\\_The\\_future\\_of\\_financial\\_services.pdf](http://www3.weforum.org/docs/WEF_The_future_of_financial_services.pdf)
- 138 See WEF (2015). The Future of Financial Services. [http://www3.weforum.org/docs/WEF\\_The\\_future\\_of\\_financial\\_services.pdf](http://www3.weforum.org/docs/WEF_The_future_of_financial_services.pdf) Traceability enables a greater degree of visibility into the flow of money for financial institutions and regulators, facilitating taxation, transparency, and information gathering.
- 139 PwC (2016). Blurred lines: How FinTech is shaping Financial Services. [https://www.pwc.com/il/en/home/assets/pwc\\_fintech\\_global\\_report.pdf](https://www.pwc.com/il/en/home/assets/pwc_fintech_global_report.pdf)
- 140 Sustainable Digital Finance Alliance (2018). Digital Technologies for Mobilizing Sustainable Finance. [https://docs.wixstatic.com/ugd/3d4f2c\\_6767ef5b999c4e3fa42coe05e6ea2ac3.pdf](https://docs.wixstatic.com/ugd/3d4f2c_6767ef5b999c4e3fa42coe05e6ea2ac3.pdf)
- 141 Sustainable Digital Finance Alliance (2018). Digital Technologies for Mobilizing Sustainable Finance. [https://docs.wixstatic.com/ugd/3d4f2c\\_6767ef5b999c4e3fa42coe05e6ea2ac3.pdf](https://docs.wixstatic.com/ugd/3d4f2c_6767ef5b999c4e3fa42coe05e6ea2ac3.pdf)
- 142 Finnovista (2016). Fintech Radar Argentina: 60 startups on the cutting edge of Fintech in Argentina. <http://www.finnovista.com/fintech-radar-argentina/?lang=en>
- 143 The Economist (2015). The fintech revolution. <https://www.economist.com/leaders/2015/05/09/the-fintech-revolution>
- 144 KPMG (2018). The Pulse of Fintech 2018. <https://assets.kpmg.com/content/dam/kpmg/xx/pdf/2018/07/h1-2018-pulse-of-fintech.pdf>
- 145 McKinsey (2016). Digital Finance for all: Powering Inclusive Growth in Emerging Economies. <https://www.mckinsey.com/~media/McKinsey/Featured%20Insights/Employment%20and%20Growth/How%20digital%20finance%20could%20boost%20growth%20in%20emerging%20economies/MG-Digital-Finance-For-All-Full-report-September-2016.ashx>
- 146 UN Environment Inquiry, Paulson Institute, Bloomberg Philanthropies, European Banking Federation, Institute of International Finance, Securities Industry and Financial Markets Association (2018). Mainstreaming Sustainable Finance. [http://unepinquiry.org/wp-content/uploads/2018/07/Mainstreaming\\_Sustainable\\_Finance.pdf](http://unepinquiry.org/wp-content/uploads/2018/07/Mainstreaming_Sustainable_Finance.pdf)
- 147 UN Environment Inquiry (2016). Green Finance for Developing Countries: Needs, Concerns and Innovations. [http://unepinquiry.org/wp-content/uploads/2016/08/Green\\_Finance\\_for\\_Developing\\_Countries.pdf](http://unepinquiry.org/wp-content/uploads/2016/08/Green_Finance_for_Developing_Countries.pdf)
- 148 Numbers are based on secondary research and will evolve with macroeconomic conditions and the rapidly evolving financing conditions for green technologies, policy landscape correcting real economy price distortions, consumer preferences or other variables.
- 149 Lee, C.F. and Baral, P. (2017). Green Finance Opportunities in ASEAN. [http://unepinquiry.org/wp-content/uploads/2017/11/Green\\_Finance\\_Opportunities\\_in\\_ASEAN.pdf](http://unepinquiry.org/wp-content/uploads/2017/11/Green_Finance_Opportunities_in_ASEAN.pdf)
- 150 Caribbean Environment Programme (2011). How Two Per Cent of Global GDP can Trigger Greener, Smarter Growth While Fighting Poverty. <http://www.cep.unep.org/press/press-releases/how-two-per-cent-of-global-gdp-can-trigger-greener-smarter-growth-while-fighting-poverty>
- 151 Xinhua (2017). Green financing piloting part of China's commitment to Paris Agreement. <http://en.people.cn/n3/2017/0615/c90000-9229051.html>
- 152 Lee, C.F. and Baral, P. (2017). Green Finance Opportunities in ASEAN. [http://unepinquiry.org/wp-content/uploads/2017/11/Green\\_Finance\\_Opportunities\\_in\\_ASEAN.pdf](http://unepinquiry.org/wp-content/uploads/2017/11/Green_Finance_Opportunities_in_ASEAN.pdf)
- 153 There are, however, some estimates of NDC-related needs between 2016 and 2020 for Brazil, Mexico and Chile. These estimates account for investment amounts as % of GDP: 3.15% for Brazil, 3.27% for Mexico and 1.73% for Chile. The most recent estimates on NDC costs for Mexico account only for investment needs of 0.73% of GDP.
- 154 Technology and Action for Rural Advancement (2015). Achieving the Sustainable Development Goals in India: A Study of Financial Requirements and Gaps. [http://www.devalt.org/images/L3\\_ProjectPdfs/AchievingSDGsInIndia\\_DA\\_21Sept.pdf?mid=6&sid=28](http://www.devalt.org/images/L3_ProjectPdfs/AchievingSDGsInIndia_DA_21Sept.pdf?mid=6&sid=28)



- 155 Lee, C.F. and Baral, P. (2017). Green Finance Opportunities in ASEAN. [http://unepinquiry.org/wp-content/uploads/2017/11/Green\\_Finance\\_Opportunities\\_in\\_ASEAN.pdf](http://unepinquiry.org/wp-content/uploads/2017/11/Green_Finance_Opportunities_in_ASEAN.pdf)
- 156 Thomson, P. (2017). Opening remarks at the High Level SDG Action Event “SDG Financing Lab”. <https://www.un.org/pga/71/2017/04/18/opening-of-sdg-financing-lab/>
- 157 Although developing and emerging economies will have a higher share of SDG investment need between now and 2030, we assume that this US\$6 trillion need is evenly spread across all economies.
- 158 According to World Bank Data, global GDP in 2017 is US\$80.684 trillion with Argentina accounting for 0.79% of global GDP. Based on GDP estimates provided by Oxford Economics (<https://www.oxfordeconomics.com/cities/report>), global GDP in 2030 will be US\$130 trillion with Argentina accounting for 0.77 % of global GDP.
- 159 Argentina’s GDP accounts for 0.87% of combined GDP of upper middle-income and high-income countries. Since we do not have 2030 GDP projection data for all upper middle-income and high-income countries, we are using 2017 data as the reasonable basis for estimation as the percentage contribution of Argentina to this block’s GDP will not change much in 2030.
- 160 World Bank (2018). GDP (current US\$) data. <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=XT-XD>
- 161 The combined SDG needs for upper middle-income and high-income countries are calculated as the difference between global SDG investment needs estimated at US\$6 trillion annually and the investment need for low-income and lower middle-income countries estimated by the Sustainable Development Solutions Network.
- 162 World Bank (2018). GDP (current US\$) data. <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=XM-XN>
- 163 Schmidt-Traub, G. (2015). Investment Needs to Achieve the Sustainable Development Goals. <http://unsdsn.org/wp-content/uploads/2015/09/151112-SDG-Financing-Needs.pdf>
- 164 Castro, L., Szenkman, P. and Lotito, E. (2015). ¿Cómo puede cerrar el próximo gobierno la brecha de infraestructura? <https://www.cippec.org/publicacion/como-puede-cerrar-el-proximo-gobierno-la-brecha-de-infraestructura/>
- 165 PwC (2017). Renewables in Argentina: Opportunities in a new business environment. <https://www.pwc.com.ar/es/publicaciones/assets/renewables-in-Argentina.pdf>; Export Council of Australia (2017). Argentina’s Renewal: Capitalising on reform in South America’s second-largest economy. <https://www.export.org.au/publications/argentina-s-renewal-capitalising-on-reform-in-south-america-s-second-largest-economy>; World Bank (2006). Review of Argentina’s Housing Sector: Options for Affordable Housing Policy. [http://siteresources.worldbank.org/EXTFINANCIALSECTOR/Resources/282884-1242281415644/Argentina\\_Housing\\_Nov06.pdf](http://siteresources.worldbank.org/EXTFINANCIALSECTOR/Resources/282884-1242281415644/Argentina_Housing_Nov06.pdf); World Travel & Tourism Council (2018). Travel & Tourism Economic Impact 2018 – Argentina. <https://www.wttc.org/-/media/files/reports/economic-impact-research/countries-2018/argentina2018.pdf>
- 166 <https://outlook.github.org/countries/Argentina>
- 167 <https://www.minhacienda.gob.ar/onp/presupuestos/2017>
- 168 Estimate based on publicly available information from national accounts. Only capital expenditures are being considered.
- 169 World Bank (2017). Argentina – Capital Market Financing for Infrastructure. <http://documents.worldbank.org/curated/en/212571498688497844/pdf/P161487-06-28-2017-1498688495179.pdf>
- 170 Exchange Rate Considered : US\$1 = AR\$27.78
- 171 50% of total budget assumed to be allocated to electricity generation and grid expansion. Of that, 40% assumed to be clean (hydropower and other renewable energy sources).
- 172 Agriculture and animal husbandry contributes to almost 40% of Argentina’s GHG emissions, so only about 50% of total budget allocated to this sector is assumed to be SDG-aligned.
- 173 The GHG emissions of Argentina’s industry sector are only 3% of the total, so about 80% of budget allocated to this sector is assumed to be SDG-aligned.
- 174 Ministry of Treasury (2017). Budget 2017, Government of Argentina. <https://www.minhacienda.gob.ar/onp/presupuestos/2017> and [https://www.minhacienda.gob.ar/onp/documentos/presutexto/proy2017/ley/pdf/planillas\\_anexas/capitulo1/anexa101.pdf](https://www.minhacienda.gob.ar/onp/documentos/presutexto/proy2017/ley/pdf/planillas_anexas/capitulo1/anexa101.pdf)
- 175 IAMC (2017). Resumen De Mercado. [https://iamcmediamanager.prod.ingeccloud.com/MediaFiles/IAMC/2018/2\\_20/0/11/41/731463.pdf](https://iamcmediamanager.prod.ingeccloud.com/MediaFiles/IAMC/2018/2_20/0/11/41/731463.pdf)
- 176 Period considered: May 2016-May 2017
- 177 World Bank (2017). Argentina – Capital Market Financing for Infrastructure. <http://documents.worldbank.org/curated/en/212571498688497844/pdf/P161487-06-28-2017-1498688495179.pdf>
- 178 World Bank (2017). Argentina – Capital Market Financing for Infrastructure. <http://documents.worldbank.org/curated/en/212571498688497844/pdf/P161487-06-28-2017-1498688495179.pdf>
- 179 Argentina’s financial system (credit to GDP) accounts for less than 15% of GDP, while in Chile it accounts for about 70%. The region has an average of 38% and developed economies 160%.
- 180 Domestic credit to private sector by banks refers to financial resources provided to the private sector by other depository corporations (deposit taking corporations except central banks), such as through loans, purchases of non-equity securities, and trade credits and other accounts receivable, that establish a claim for repayment. For some countries, these claims include credit to public enterprises. World Bank (2018). Domestic credit to private sector by banks (% of GDP) data. <https://data.worldbank.org/indicator/FD.AST.PRVT.GD.ZS>
- 181 World Bank (2017). Argentina – Capital Market Financing for Infrastructure. <http://documents.worldbank.org/curated/en/212571498688497844/pdf/P161487-06-28-2017-1498688495179.pdf>
- 182 Moody’s (2018). Moody’s: Argentina’s new PPP program is positive for investment inflows and infrastructure development. [https://www.moody’s.com/research/Moodys-Argentinas-new-PPP-program-is-positive-for-investment-inflows--PR\\_380929](https://www.moody’s.com/research/Moodys-Argentinas-new-PPP-program-is-positive-for-investment-inflows--PR_380929)



- <sup>183</sup> World Bank (2017). Argentina – Capital Market Financing for Infrastructure. <http://documents.worldbank.org/curated/en/212571498688497844/pdf/P161487-06-28-2017-1498688495179.pdf>
- <sup>184</sup> World Bank (2018). Foreign direct investment, net inflows (BoP, current US\$) data. <https://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD?locations=AR>
- <sup>185</sup> Based on the historical FDI investment areas and priority investment areas identified for the next couple of years. Mander, B. (2016). Results of foreign direct investments in Argentina remain flat. <https://www.ft.com/content/65528454-5807-11e6-9f70-badea1b336d4>; Deloitte (2017). Investing in Argentina: Industry Approach. <https://www2.deloitte.com/content/dam/Deloitte/ar/Documents/finance/Investing-in-Arentina.pdf>
- <sup>186</sup> Johnson, L. (2017). Green Foreign Direct Investment in Developing Countries. [http://unepinquiry.org/wp-content/uploads/2017/10/Green\\_Foreign\\_Direct\\_Investment\\_in\\_Developing\\_Countries.pdf](http://unepinquiry.org/wp-content/uploads/2017/10/Green_Foreign_Direct_Investment_in_Developing_Countries.pdf)
- <sup>187</sup> World Bank (2018). Foreign direct investment, net inflows (% of GDP) data. <https://data.worldbank.org/indicator/BX.KLT.DINV.WD.GD.ZS>



**Inquiry:** Design of a Sustainable Financial System

International Environment House

Chemin des Anémones 11-13

Geneva, Switzerland

Tel.: +41 (0) 229178995

Email: [inquiry@unep.org](mailto:inquiry@unep.org) - Twitter: [@FinInquiry](https://twitter.com/FinInquiry)

Website: [www.unepinquiry.org](http://www.unepinquiry.org)