G20 Global Summit on Financing Energy Efficiency, Innovation and Clean Technology

MUFG’s approach to energy efficiency & clean energy

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June 12th, 2019
Mitsubishi UFJ Morgan Stanley

MUFG’s E/S approach

- Place greater emphasis on ESG in our business management to achieve sustainable growth in corporate value.

Directions

**Opportunities**
- We will sustainably enhance our corporate value by helping resolve environmental/social (E/S) issues through our business activities while looking to contribute to the SDGs and other sustainability targets.

**Risk Management**
- Staying apprised of international trends and standards, we will upgrade our E/S risk management framework and enhance our responsiveness to climate change.

**Disclosure**
- We will maintain easy-to-understand information disclosure covering a range of our initiatives while enhancing engagement with various stakeholders.

Major initiatives from FY18

- **Specifying priority E/S issues that MUFG must address**
  1. Aging population & low birth rate
  2. Business incubation & job creation
  3. Social infrastructure & town planning
  4. Global warming & climate change
  5. Financial innovation
  6. Workstyle reforms
  7. Cross-sectional E/S Issues

- **Formulating group-wide E/S policies and procedures**
  - MUFG Environmental Policy Statement
  - MUFG Human Rights Policy Statement
  - MUFG Environmental and Social Policy Framework

- **Strengthening corporate governance structure**
  - Reduced the total number of directors on the Board with a majority of outside directors
  - Review of the Senior Advisors System
  - Review of the compensation policy for individual officers, etc.

Source: MUFG IR Presentation (March, 2019)
MUFG E/S issues-based business initiatives (1)

Investors

* ESG investment
* The net proceeds from the issuance
* Issuance of Green Bonds

The Bank

* Financing

The Securities

* Underwriting and marketing Structuring
* Issuance of Green Bonds

The Trust Bank

* ESG-centered dialogue / ESG-centered asset management

Corporate, etc., that pursue environmentally friendly operations

* Investees
* Eligible green projects
* Business and public agencies

*MURC*1

*Climate change countermeasure consulting

*1 Mitsubishi UFJ Research & Consulting

Source: MUFG Initiatives for addressing ESG issues (September 19, 2018)
## MUFG E/S issues-based business initiatives (2)

### Major E/S issues-based business initiatives

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Aging population &amp; low birth rate</td>
<td>- Support personal financial asset building and succession (Dollar-Cost Averaging NISA, etc.)</td>
</tr>
<tr>
<td></td>
<td>- Investment education, help improve financial literacy on a multigenerational basis</td>
</tr>
<tr>
<td>2. Business incubation &amp; job creation</td>
<td>- Expand business with venture corporations</td>
</tr>
<tr>
<td></td>
<td>- Microfinance through KS and its subsidiaries</td>
</tr>
<tr>
<td>3. Social infrastructure &amp; town planning</td>
<td>- Support regional economic revitalization via the Tourism Activation Fund</td>
</tr>
<tr>
<td></td>
<td>- Promote global infrastructure business in collaboration with clients and group Cos. (JII/MUL)</td>
</tr>
<tr>
<td>4. Global warming &amp; climate change</td>
<td>- Stronger focus on environmental financing in the renewable energy industry</td>
</tr>
<tr>
<td></td>
<td>- Expand our consulting business for tackling climate change</td>
</tr>
<tr>
<td>5. Financial innovation</td>
<td>- Provide advanced financial services (e.g., using blockchain technology &amp; AI)</td>
</tr>
<tr>
<td>6. Workstyle reforms</td>
<td>- Improve productivity through flexible work styles</td>
</tr>
<tr>
<td>7. Cross-sectorial E/S issues</td>
<td>- Sophisticate the investment chains; enhance our investment activities focused on ESG criteria</td>
</tr>
<tr>
<td></td>
<td>- ESG investment in banking book</td>
</tr>
</tbody>
</table>

### Formulating E/S policies and procedures

- **MUFG’s basic policy with regard to E/S issues**
  - **MUFG Environment Policy Statement**
    - Recognize environmental initiatives as a management responsibility
    - Continuously address environmental issues through our business activities and enhance corporate value
  - **MUFG Human Rights Policy Statement**
    - Recognize respect for human rights as an important management issue
    - Support and respect international standards, such as the Universal Declaration of Human Rights, etc.

- **Framework and procedures to support the basic policy**
  - **MUFG Environmental and Social Policy Framework**
    - Identify “Prohibited Transactions” and “Restricted Transactions” (e.g., cluster munitions manufacturing sector, coal fired power generation sector)
    - Declare our policy of actively financing renewable energy businesses, such as solar and wind power generation, to help combat climate change while supporting the adoption of advanced technologies aimed at reducing GHG emissions
    - Introduce an enhanced due diligence process to identify and assess E/S risks associated with designated transactions

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Source: MUFG IR Presentation (March, 2019)
## Revision of the MUFG E/S Policy Framework

### Coal fired power generation sector

**MUFG will not provide financing to new coal fired power generation projects**

- Exceptions may be considered where we will take into consideration the energy policies and circumstances of the host countries, international standards such as the OECD Arrangement on Officially Supported Export Credits, and the use of other available technologies when deciding whether to provide financing.

- We also support the adoption of advanced technologies for high efficiency power generation and Carbon Dioxide Capture and Storage (CCS) technologies which contribute to a reduction in the emission of greenhouse gases.

### Restricted Transactions

**Forestry, palm oil and mining (coal) will be newly added to “Restricted Transactions”**

- When considering transactions, we assess the status of such client’s consideration for environmental and social impacts. We request our clients to certify the relevant operations according to internationally recognized certification organizations or submit action plans to achieve certification when relevant operations are not certified.

- We will not provide any financing to coal mining projects using the mountaintop removal (MTR) method.

### Asset management business

**In its asset management business, MUFG has established a separate policy concerning environmental and social initiatives**

- The policy was prepared in accordance with the six principles of the Principles for Responsible Investment (PRI), based on our fiduciary duty to clients who entrust their capital to us.

  - Incorporate ESG issues into our operational process (promoting investments in highly evaluated companies and restricting investments in companies which are involved in the manufacturing and distribution of inhuman weapons and etc.)

  - Through dialogues concerning ESG issues with our portfolio companies, we encourage the sustainable growth of the companies and improve our investment performance.

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Source: MUFG Fiscal 2018 Results Presentation (May 20, 2019)
MUFG Sustainable Finance Goals

**Achievement to date**

MUFG ranked Global No.1 for the third straight year as a finance arranger to renewable energy projects.

MUFG’s ranking as a finance arranger:

<table>
<thead>
<tr>
<th>Year</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>#4</td>
</tr>
<tr>
<td>2012</td>
<td>#3</td>
</tr>
<tr>
<td>2013</td>
<td>#1</td>
</tr>
<tr>
<td>2014</td>
<td>#2</td>
</tr>
<tr>
<td>2015</td>
<td>#2</td>
</tr>
<tr>
<td>2016</td>
<td>#1</td>
</tr>
<tr>
<td>2017</td>
<td>#1</td>
</tr>
<tr>
<td>2018</td>
<td>#1</td>
</tr>
</tbody>
</table>

(Source: Bloomberg New Energy Finance ASSET FINANCE / Lead arrangers LEAGUE TABLE)

**Future endeavor**

MUFG sets a new Sustainable Finance Goals of ¥20 tn in total by FY2030 (of which, ¥8 tn for the area of environmental finance).

**Examples of Sustainable Finance**

- Arrangement of loans and PF for renewable energy projects
- Underwriting and distribution of green bonds
- MUFG Regional Revitalization Fund
- Underwriting and distribution of social bonds

Source: MUFG Fiscal 2018 Results Presentation (May 20, 2019)
MUFG financial measures for renewable energy

◆ **Environmental Management Support Loan (With 1% Interest Subsidy)**
This product makes use of the Ministry of the Environment's interest rate subsidy program for environmental management promotion activities. Under this program, the borrower can receive an interest rate subsidy (maximum 1%) for up to three years for the interest on loans made to install environmentally friendly equipment and facilities, provided the borrower has acquired a specific environmental rating, has declared set targets for reducing CO2 emissions and has made progress toward realizing those targets.

◆ **Energy Conservation Support Loan (With 1% Interest Subsidy)**
This product makes use of the Ministry of Economy, Trade and Industry's subsidy program for the promotion of upgrading facilities to improve energy efficiency. Under this program, the borrower can receive a maximum 1% subsidy for up to 10 years for the interest on loans made for the installation of energy-efficient equipment.

◆ **Green Project Support Loan (With 1.5% Interest Subsidy)**
This product makes use of the Ministry of the Environment's environmental risk assessment financing program enable the borrower to receive a maximum interest rate subsidy of 1.5% for up to five years on loans made for capital investments to address climate change. These capital investments must be carried out under the environmental risk assessment financing program. Under this program, the borrower is required to present to the lending party the results of environmental impact assessments on the project and the results of environmentally conscious measures undertaken. The lender then verifies the details and the status of execution. MUFG Bank and Mitsubishi UFJ Research and Consulting have designed a system to carry out such verifications.

# Mitsubishi UFJ Morgan Stanley

## Green bonds underwritten by MUFG

- Mitsubishi UFJ Morgan Stanley Securities (MUMSS) topped in underwriting share ranking in domestic green bond issuing market.
- MUMSS received MOE Japan Green Bond Awards (category of Japan Green Contributor) for the contribution to the development of the green bond market through underwriting and supporting the issuance of numerous green bonds since 2016.*

* News Release “MUFG, Mitsubishi UFJ Morgan Stanley Securities Co., Ltd. Receive Japan Green Bond Awards” (March 1, 2019)

## Green Bonds Underwritten by MUFG

<table>
<thead>
<tr>
<th>Rank</th>
<th>Securities firm</th>
<th># of underwriting</th>
<th>Amount (bn yen)</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mitsubishi UFJ Morgan Stanley Securities</td>
<td>33</td>
<td>1,809.3</td>
<td>27.5</td>
</tr>
<tr>
<td>2</td>
<td>Nomura Securities</td>
<td>34</td>
<td>1,536.3</td>
<td>23.3</td>
</tr>
<tr>
<td>3</td>
<td>Mizuho Securities</td>
<td>27</td>
<td>1,392.3</td>
<td>21.1</td>
</tr>
<tr>
<td>4</td>
<td>Daiwa Securities</td>
<td>22</td>
<td>1,047.6</td>
<td>15.9</td>
</tr>
<tr>
<td>5</td>
<td>SMBC Nikko Securities</td>
<td>19</td>
<td>601.5</td>
<td>9.1</td>
</tr>
<tr>
<td>6</td>
<td>Shinkin Securities</td>
<td>3</td>
<td>85.0</td>
<td>1.3</td>
</tr>
<tr>
<td>7</td>
<td>Merrill Lynch Japan Securities</td>
<td>2</td>
<td>60.0</td>
<td>0.9</td>
</tr>
<tr>
<td>8</td>
<td>Citigroup Global Markets Japan</td>
<td>1</td>
<td>25.0</td>
<td>0.4</td>
</tr>
<tr>
<td>9</td>
<td>Tokai Tokyo Securities</td>
<td>1</td>
<td>20.0</td>
<td>0.4</td>
</tr>
<tr>
<td>10</td>
<td>BNP Paribas Securities (Japan)</td>
<td>2</td>
<td>9.0</td>
<td>0.1</td>
</tr>
</tbody>
</table>

Source: Data compiled by Mitsubishi UFJ Morgan Stanley Securities (from Apr 1, 2016 to Mar 31, 2019), based on the issuance amount divided by the share of joint bookrunners of yen-denominated green bonds etc. (green bond, sustainability bond, social bond)
MUFG received MOE Japan Green Bond Awards (category of Japan Green Impact) for the contribution to the green bond business or environmental impact assessments with a positive impact on the environment. *1

*1 News Release “MUFG, Mitsubishi UFJ Morgan Stanley Securities Co., Ltd. Receive Japan Green Bond Awards” (March 1, 2019)

<table>
<thead>
<tr>
<th>Issue Date</th>
<th>Issue Amount (Mio)</th>
<th>Tenor</th>
<th>Use of Proceeds</th>
<th>Second Opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-Sep-16</td>
<td>USD 500</td>
<td>7 year</td>
<td>Renewable energy</td>
<td>Sustainalytics</td>
</tr>
<tr>
<td>26-Jan-18</td>
<td>EUR 500</td>
<td>5 year</td>
<td>Renewable energy</td>
<td>Sustainalytics</td>
</tr>
<tr>
<td>9-Oct-18</td>
<td>EUR 500</td>
<td>5 year</td>
<td>Green buildings*2, renewable energy</td>
<td>Sustainalytics</td>
</tr>
<tr>
<td>18-Dec-18</td>
<td>USD 120</td>
<td>10 year</td>
<td>Green buildings*2, renewable energy</td>
<td>Sustainalytics</td>
</tr>
</tbody>
</table>

*2 The eligible green buildings are buildings which have received or will receive at least one of the following classifications within 24 months preceding the green bond issuance or reporting dates:
- LEED: Platinum or Gold (confined to buildings of which the CO2 emissions are trackable)
- BREEAM: Outstanding or Excellent (confined to buildings of which CO2 emissions are trackable)
- CASBEE: S Rank or A Rank (confined to buildings of which the CO2 emissions are trackable)
- DBJ Green Building Certification: 5 Stars or 4 Stars (confined to buildings of which the CO2 emissions are trackable)

Examples of JCM projects (energy efficiency)

- Lao PDR Energy Efficient Datacenter Project (LEED)
- Promotion of green hospitals by improving efficiency / environment in national hospitals in Vietnam
- Low carbon hotel project in Vietnam: Improving the energy efficiency of commercial buildings by utilization of high efficiency equipment
- Energy saving and work efficiency improvement by introducing a new chip-on-board LED system in Vietnam

Lao PDR Energy Efficient Datacenter Project

• Outline of the project:
Setting a goal of developing a high-quality, energy-efficient data center for the first time in Lao PDR, this NEDO JCM demonstration project aims to design and implement a container-type data center in Japan, introduce it into the Ministry of Science and Technology (MOST) of Lao PDR and demonstrate the energy efficient performance of the center.
The datacenter integrates IT and cooling systems, with both IT equipment and indirect outside-air cooling system in easy-to-ship 20-foot containers. It is expected to achieve approximately 40% of energy efficiency compared to conventional datacenters.

• Operator of the project: NEDO commissioned to Toyota Tsusho Corporation, Internet Initiative Japan Inc. and Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.

https://www.sc.mufg.jp/english/company/sustainability/cef/project_energy_saving.html
Promotion of green hospitals by improving efficiency / environment in national hospitals in Vietnam

• Outline of the project:
A NEDO demonstration project under the JCM; Aim to establish and promote green hospitals by installing high-efficiency-inverter air conditioners in national hospitals in the cities of Hanoi and Ho Chi Minh and demonstrating the use of energy management systems (EMS) that optimally control those air conditioners, improving the air quality within the hospitals and reducing energy use in each hospital by 35%.

• Operator of the project: NEDO commissioned to Mitsubishi Electric Corporation, Mitsubishi Corporation and Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.

Low carbon hotel project in Vietnam: Improving the energy efficiency of commercial buildings by utilization of high efficiency equipment

- Outline of the project:
  A NEDO demonstration project under the JCM; Introduce the Building Energy Management System (BEMS), high-efficiency steam boilers, heat pump water heaters, and LED lighting equipment to hotels to demonstrate their energy-saving effects, with the goal of implementing effective energy-saving policies for three types of energy usage; namely, air conditioning, water heating and lighting, which account for 85% of the energy consumed in hotels in Viet Nam.

- Operator of the project: NEDO commissioned to Hibiya Engineering, Ltd. and Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.

https://www.sc.mufg.jp/english/company/sustainability/cef/project_energy_saving.html
Energy saving and work efficiency improvement by introducing a new chip-on-board LED system in Vietnam

Outline of the project:
Coastal fishing boats in Vietnam are equipped with metal halide (HID), mercury, and other types of lamps. To verify an energy-efficient alternative, a demonstration was conducted using a special LED fishing light system equipped with a new chip-on-board (COB) module. Using the new system designed to reduce energy consumption and improve on-board operations, the demonstration confirmed the new system’s ability to reduce greenhouse gas emissions.

Operator of the project: NEDO commissioned to Stanley Electric Co., Ltd.

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