Commissioned Research Report on the Cape Town Convention and the MAC Protocol

<Excerpt from the report on the economic impact Assessment>

Cape Town Convention: Convention on International Security Rights to Movable Property

MAC Protocol: Protocol to the Convention on International Security Rights to Movable Property relating to matters specific to mining, agricultural and construction properties

CEMA

March 2026

(2) Microeconomic Effects (Illustrative Transaction-Level Estimates)

① Improvement in Financing Terms

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- **If financing conditions (interest rate and loan tenor) improve as assumed in UNIDROIT's 2018 assessment, the monthly repayment burden for a construction equipment user purchasing JPY 100 million worth of equipment through financing could be reduced by approximately 30%.**

Case: Construction Equipment User Purchasing JPY 100 Million of Equipment through a Loan

	Pre-MAC Protocol Financing Conditions (UNIDROIT)			Standard Scenario Following Entry into Force of the MAC Protocol (UNIDROIT)
Interest Rate	8.5%	8.5%	7.5%	7.5%
Loan Tenor	4 years	5 years	5 years	6 years
Monthly Payment	JP¥2,464,830	JP¥2,051,653 (-16.8%)	JP¥2,003,794 (-18.7%)	JP¥1,729,011 **(-29.9%)**
Total Repayment Amount	JP¥118,311,826	JP¥123,099,151	JP¥120,227,668	JP¥124,488,767

Source: UNIDROIT, "MAC Protocol Economic Assessment" (August 2018)

3-2. Economic Impact Assessment
(2) Microeconomic Effects (Illustrative Transaction-Level Estimates)
② Reduction in Insurance Premium Rates

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- **If, as in the aircraft sector, an OECD Sector Understanding is established and premium discounts become available, insurance costs for construction equipment manufacturers and users could be reduced by approximately JPY 0.4–0.8 million per transaction.**

Case: Export of Construction Equipment Valued at Approximately JPY 100 Million to an Overseas User

Country Risk Category	C Malaysia	D Indonesia	E Vietnam	H Myanmar
Insurance Premium	JP¥4,067,800	JP¥5,045,400	JP¥6,752,700	JP¥7,342,700
Discount Rate	Up to 10%			
Premium Reduction	JP¥406,780	JP¥504,540	JP¥675,270	JP¥734,270

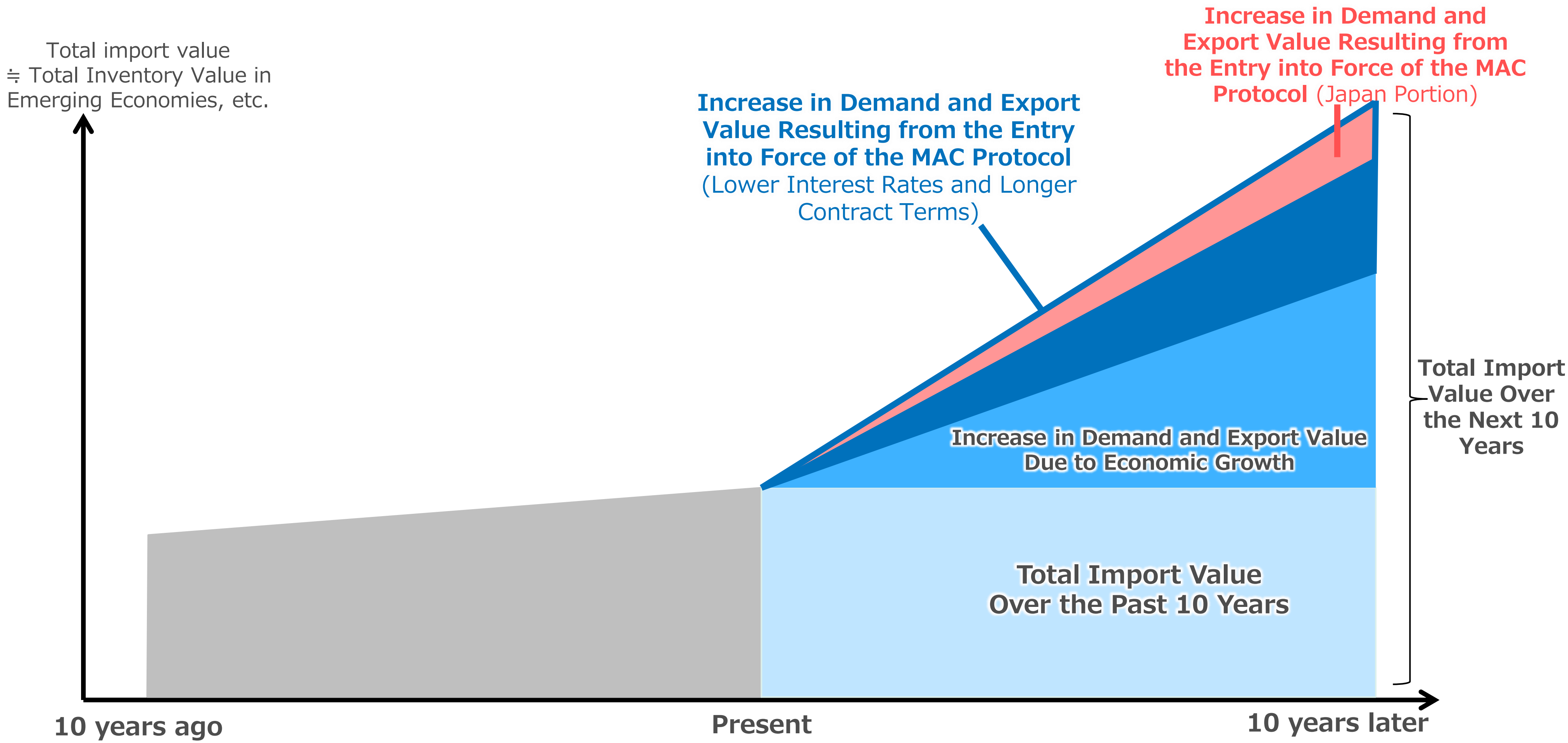
Assumptions: General Trade Insurance (tenor exceeding two years); individual/export contract basis; comprehensive coverage; debtor rating category 3; insured value of JPY 100 million pre-shipment and JPY 110 million post-shipment; repayment period of five years (60 installments); coverage ratio: pre-shipment—95% political risk / 80% credit risk; post-shipment—97.5% political risk / 95% credit risk.

Source: Nippon Export and Investment Insurance (NEXI), "Web Insurance Premium Simulation Service"

(3) Estimation of Macroeconomic Effects

① Conceptual Framework for the Macroeconomic Estimate (Overall Approach)

- **2018 UNIDROIT estimate:**
  The increase in demand and export value resulting from the entry into force of the MAC Protocol is estimated by calculating the difference between future and current inventory values.



Source: UNIDROIT " MAC Protocol Economic Assessment " (August 2018) , World Trade Statistics

3-2. Economic Impact Assessment
(3) Estimation of Macroeconomic Effects
② Key parameters and calculation methodology

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- **The key parameters and calculation methodology used in this market-size estimate are as follows:**

Total import value over the past 10 years	■ World Trade Statistics : **Total import value from 2015–2024: USD 1,340.9 billion** ■ Based on **the 56 HS codes** defined in the MAC Protocol ■ Assumes a **10-year service life** for MAC equipment (i.e., the installed equipment stock turns over once every 10 years)
Increase in Demand and Export Value Due to Economic Growth	■ (**Total import value over the next 10 years**) - (**Total import value over the past 10 years**) ■ (**2024 import value**) × (**average annual GDP growth rate over 10 years**) ＝ **USD 552.5 billion** ■ Average annual GDP growth rate: **3.8%** ■ Source: World Bank, ***2025 GDP Growth Forecast for Emerging Economies***
Increase in Demand and Export Value Resulting from the Entry into Force of the MAC Protocol	■ Effect of improved financing conditions: **USD 66.3 billion** ■ Financing conditions improved from: Interest rate: **8.5%** Repayment period: **4 years** ■ To: Interest rate: **7.5% (-1.0%)** Repayment period: **6 years (+2 years)** ■ UNIDROIT 2018 estimate: **+12%**[*1]
Increase in Demand and Export Value Attributable to the MAC Protocol (Japan Portion)	■ (**Increase attributable to MAC Protocol**) × (**Japan's export share**) ＝ **USD 6.2 billion** ■ World Trade Statistics : **Japan's Export share in 2024 : 9.4%** ■ Total Exports in 2024 : **USD 1,337.0 brillion** ■ Japan 's Exports : **USD 137.1 billion**

*1 :Calculated by UNIDROIT as the growth rate obtained when surplus funds generated by improved financing conditions are allocated to MAC equipment purchases, subject to the upper limit represented by the share of the MAC industry in GDP.

Source: UNIDROIT " MAC Protocol Economic Assessment " (August 2018) , World Trade Statistics, World Bank

3-2. Economic Impact Assessment
(3) Estimation of Macroeconomic Effects
③ Estimation results

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- **The entry into force of the MAC Protocol is expected to expand demand in emerging economies, increasing the construction machinery market by a cumulative USD 66.3 billion over the 10 years following entry into force (UNIDROIT estimate).**
- **Based on this assumption, Japan's exports are expected to increase by a cumulative USD 6.2 billion over the same period (approximately JPY 100 billion per year) (our estimate).**

Total Import Value Over the Past 10 Years
USD 1,340.9 billion

Increase in Demand and Export Value Due to Economic Growth
USD 552.5 billion
=
Total Import Value Over the Next 10 Years:
USD 1,893.3 billion
(2024 Import value
USD 153.3 billion
×
Average Annual GDP Growth Rate
in Emerging Economies
3.8%)
−
Total Import Value Over the Past 10 Years
USD 1,340.9 billion

Increase in Demand and Export Value Resulting from the Entry into Force of the MAC Protocol
USD 66.3 billion
=
• Increase in Demand and Export Value Due to Economic Growth
USD 552.5 billion
×
Effect of Improved Financing Conditions
+12%

Increase in Demand and Export Value in Japan
USD 6.2 billion
=
Increase in Demand and Export Value Resulting from the Entry into Force of the MAC Protocol
66.3 billion USD
×
2024
Export Share
9.4%

Source: UNIDROIT " MAC Protocol Economic Assessment " (August 2018) , World Trade Statistics, World Bank