Risk Assessment Report: HD Korea Shipbuilding & Offshore Engineering Co Ltd (KRX: 009540)

Executive Summary

This report provides a comprehensive risk assessment of HD Korea Shipbuilding & Offshore Engineering Co Ltd (HD KSOE), a South Korean industrial conglomerate and a key holding in the Government Pension Fund Global (GPFG). The assessment is conducted in accordance with the GPFG's "Guidelines for observation and exclusion of companies," focusing on product-based risk, conduct-based risk, and geopolitical exposure.

HD KSOE operates as the intermediary holding company for the shipbuilding and offshore engineering division of the HD Hyundai group. Its value and operations are intrinsically linked to its controlled subsidiaries, most notably HD Hyundai Heavy Industries (HHI), the world's largest shipyard. The company holds a dual identity in the global market: it is a pivotal innovator in maritime decarbonization technologies, while simultaneously being a major global defense contractor specializing in advanced naval vessels.

The product-based assessment concludes that HD KSOE's activities do not meet the criteria for automatic exclusion under Guideline § 3. The company does not manufacture prohibited weapons systems such as nuclear weapons or cluster munitions, nor is it involved in the production of tobacco, cannabis, or thermal coal. Its primary role in the defense sector is the construction of naval platforms, not the munitions themselves.

However, the conduct-based assessment reveals significant and systemic risks across multiple criteria outlined in Guideline § 4. There is an unacceptable risk of the company contributing to or being responsible for gross economic crime, as evidenced by the conviction of HHI employees for the theft of military secrets related to the Korean Next-Generation Destroyer (KDDX) project and a separate conviction of a senior HHI executive for ordering the destruction of evidence in a regulatory investigation. Furthermore, there are credible and persistent allegations of human rights violations concerning the treatment of migrant workers at its shipyards, an issue on which the company has failed to engage transparently. The use of

machinery produced by its parent group, HD Hyundai, in the demolition of civilian property in the Occupied Palestinian Territories raises serious questions about the company's human rights due diligence in conflict-affected regions. Finally, the company's sale of advanced warships to the Philippines, a state engaged in an active armed conflict in the South China Sea, presents a direct and material risk under Guideline § 4c.

These severe conduct-related concerns create a deeply contradictory profile when contrasted with the company's commendable and industry-leading efforts in environmental technology and maritime decarbonization. While its proactive environmental strategy is a significant mitigating factor, it does not offset the pattern of governance failures and ethical breaches. The company's business model in the defense sector appears to capitalize on geopolitical instability, further elevating the ethical risk for the GPFG.

Based on the aggregation of these findings, particularly the pattern of gross economic crime and the high-risk arms sales, this report assigns a final risk category.

Final Risk Category: 2 - High Risk

This categorization reflects the severe and systemic nature of the conduct-based risks, which indicate a corporate culture with significant governance weaknesses and a high probability of future norm violations. Continued investment carries substantial reputational and ethical risk. It is recommended that Norges Bank initiate active ownership engagement to address these specific concerns. Should the company fail to demonstrate significant and verifiable improvements in its governance, compliance, and human rights due diligence, a re-evaluation for potential exclusion would be warranted.

Corporate Profile and Structure

To accurately assess the risks associated with an investment in HD Korea Shipbuilding & Offshore Engineering Co Ltd (HD KSOE), it is imperative to understand its position within the broader HD Hyundai conglomerate and its relationship with its key operating subsidiaries. HD KSOE is not a primary operator but an intermediary holding company, a strategic distinction that has significant implications for accountability and risk attribution.[1]

Holding Company Structure

HD KSOE (KRX: 009540) serves as the sub-holding company for the Shipbuilding and

Offshore Engineering Division of HD Hyundai Co Ltd, which is the ultimate parent company and holds a 35.05% controlling stake in HD KSOE.[3] The stated purpose of HD KSOE is to function as a premier technology-driven entity, overseeing integrated sales and marketing, basic and detailed design, procurement, and group-wide research and development.[1] It is responsible for defining the future development trajectories and growth strategies for the maritime operations of the entire group, positioning itself as a center for R&D and engineering expertise rather than direct manufacturing.[1]

This corporate architecture means that the operational activities, and by extension the most significant ethical and reputational risks, reside within the subsidiaries that HD KSOE controls. The GPFG's ethical guidelines explicitly apply to companies that "either themselves or through entities they control" engage in proscribed activities.[7] Therefore, a comprehensive risk assessment of HD KSOE must necessarily "pierce the corporate veil" and scrutinize the conduct of its primary operating units, as their actions are directly consolidated into HD KSOE's financial performance and risk profile. The value of an investment in HD KSOE is derived almost entirely from the performance of these controlled entities.

Key Operating Subsidiaries

The shipbuilding division under HD KSOE's control comprises four main entities, each with a distinct market focus but operating under the integrated strategic direction of the holding company [6]:

- **HD Hyundai Heavy Industries (HHI):** As the flagship subsidiary, HHI is the world's largest and most technologically advanced shipyard.[8] HD KSOE holds a 74.86% ownership stake in HHI.[9] HHI's business is the most diverse, encompassing the construction of very large crude carriers (VLCCs), LNG carriers, and complex offshore oil and gas facilities. Critically for this assessment, HHI houses the Naval & Special Ships Business Unit, which is responsible for designing and building sophisticated warships, including Aegis destroyers, frigates, and submarines, for both the Republic of Korea Navy and international clients.[8] The majority of the conduct-based risks identified in this report originate from the operations and business practices of HHI.
- **HD Hyundai Mipo (HMD):** Established in 1975, HMD has evolved to become a global leader in the construction of medium-sized commercial ships. Its portfolio includes product and chemical tankers, LPG and ammonia carriers, container ships, and bulk carriers.[6]
- **HD Hyundai Samho (HSHI):** HSHI focuses on the construction of large-scale commercial vessels and is a major contributor to the group's overall production capacity and financial results. The subsidiary has demonstrated strong profitability, particularly in

the construction of high-value gas carriers and tankers.[6]

- **HD Hyundai Vietnam Shipbuilding (HVS):** Established as a joint venture in Vietnam, HVS specializes in product/chemical tankers and bulk carriers, leveraging its strategic location to serve the regional market and contribute to the group's global production network.[6]

Business Segments Overview

The collective business of HD KSOE's subsidiaries can be categorized into several key segments [15]:

1. **Shipbuilding:** The core business, covering a vast range of commercial vessels from tankers to container ships and specialized gas carriers.
2. **Offshore & Industrial Plant Engineering:** The design and construction of fixed and floating facilities for the offshore oil and gas industry, as well as involvement in renewable energy projects like offshore wind.[8]
3. **Naval & Special Ships:** A high-value segment operated primarily through HHI, focusing on the design, construction, and integration of advanced surface combatants and submarines.[8]
4. **Engine & Machinery:** A dominant global position as the largest manufacturer of large marine engines, holding approximately 35% of the global market share. This includes the development of eco-friendly dual-fuel engines.[1]

The structure of the group concentrates the most severe ethical risks within the HHI subsidiary. Issues related to corruption, labor rights, workplace safety, and controversial defense contracts are almost exclusively associated with HHI's operations. However, under the GPFG's framework and the principles of corporate governance, HD KSOE, as the controlling entity, bears ultimate responsibility for the conduct of its subsidiaries.

Product-Based Risk Assessment (GPFG Guideline § 3)

This section assesses HD KSOE's products and services against the specific product-based exclusion criteria set forth in § 3 of the GPFG's ethical guidelines. These criteria are designed to prevent the fund from being invested in companies involved in the production of certain weapons, tobacco, cannabis, or those with significant business activities related to thermal coal.[7]

3.1 Involvement in Prohibited Weapons Systems (§ 3a)

Guideline § 3a mandates exclusion for companies that "develop or produce weapons or central components to weapons which by normal use violate fundamental humanitarian principles." The guideline provides an explicit list, including nuclear weapons, cluster munitions, anti-personnel mines, chemical weapons, and biological weapons.[7]

HD KSOE, through its subsidiary HHI, is a major producer of military hardware, specifically naval vessels. Its product portfolio includes destroyers (including advanced Aegis-class destroyers), frigates, corvettes, submarines, patrol vessels, and auxiliary support ships.[8] These vessels are platforms designed to carry and deploy a wide array of conventional weapon systems, such as missiles, torpedoes, and naval guns.

However, a detailed review of the company's activities and products reveals no evidence that HD KSOE or its subsidiaries are involved in the development or production of the specific categories of weapons listed for exclusion in § 3a. The company's role is the construction of the delivery platforms, not the manufacturing of the munitions themselves. While these platforms are indispensable components of a modern navy's warfighting capability, they do not, in themselves, constitute a direct violation of the narrowly defined product criteria in this section of the guidelines.

This distinction between the platform and the munition is critical. The company's products place it in very close proximity to the activities the guidelines seek to prevent. For example, HHI builds destroyers equipped with vertical launching systems capable of firing various missiles.[21] This proximity elevates the importance of the conduct-based assessment under § 4, particularly concerning the end-users of these advanced military platforms and the contexts in which they are deployed. While not a direct breach of § 3a, the nature of these products serves as a significant contextual factor for the subsequent risk analysis.

3.2 Exposure to Other Proscribed Products (§ 3b, 3c, and thermal coal criteria)

A thorough review of HD KSOE’s diverse business activities confirms no involvement in the other product categories targeted for exclusion by the GPFG guidelines.

- **Tobacco and Cannabis (§ 3b, 3c):** The company's operations are concentrated in heavy industry, including shipbuilding, offshore engineering, and machinery manufacturing.[15] There is no evidence of any engagement in the production or sale of tobacco products or cannabis for recreational purposes.
- **Thermal Coal (§ 3(2)):** The guidelines establish specific revenue, operational, and output thresholds for the exclusion of companies involved in thermal coal.[7] HD KSOE's business segments are not related to coal mining or coal-fired power generation. Its energy-related activities focus on constructing infrastructure for the oil and gas sector and, increasingly, on developing technologies for renewable energy and decarbonization, such as hydrogen and ammonia-fueled engines and offshore wind platforms.[8] The company's activities do not meet any of the criteria for exclusion based on thermal coal.

In conclusion, based on a strict interpretation of the available information and the specific wording of the guidelines, HD KSOE does not meet the criteria for product-based observation or exclusion under § 3.

Conduct-Based Risk Assessment (GPFG Guideline § 4)

This section evaluates whether there is an unacceptable risk that HD KSOE, through its own actions or those of its controlled subsidiaries, contributes to or is responsible for severe breaches of fundamental ethical norms as defined in § 4 of the GPFG guidelines.[7] The analysis reveals a pattern of significant governance failures and ethical lapses that stand in stark contrast to the company's technological and environmental leadership.

4.1 Gross Corruption or Other Gross Economic Crime (§ 4g)

The GPFG guidelines allow for exclusion where there is an unacceptable risk of company involvement in "gross corruption or other gross economic crime".[7] Evidence points to two separate and severe instances of such conduct within HD KSOE's key subsidiary, HHI, indicating a systemic governance problem.

KDDX Military Secrets Theft

The most prominent case involves the illegal acquisition of military secrets. In November 2023, nine employees of HHI were convicted of violating the Military Secret Protection Act.[24] The court found that between 2012 and 2015, the employees illegally obtained and internally shared confidential documents related to the conceptual design of the Korean Next-Generation Destroyer (KDDX). These documents were the proprietary work of a rival shipbuilder, then known as Daewoo Shipbuilding & Marine Engineering (DSME), now Hanwha Ocean.[25] This was not a minor infraction but the theft of foundational design documents for a major 7.8 trillion won ($5.8 billion) national defense project.[25]

Following the conviction, Hanwha Ocean filed a formal police complaint, alleging that the theft was not the work of rogue employees but was conducted with the knowledge and approval of senior management at HHI.[26] Hanwha presented transcripts of police interviews where HHI employees reportedly admitted that their superiors were aware of and had approved the viewing and photographing of the secret documents.[27] While HHI acknowledged the employees' illegal actions, it consistently denied any systematic or executive-level involvement.[25]

The state's Defense Acquisition Program Administration (DAPA) reviewed the case and, citing a lack of definitive proof of executive involvement, decided not to ban HHI from future bidding. However, it did impose a significant security penalty, deducting 1.8 points from HHI's score in future tenders until November 2025—a penalty substantial enough to influence the outcome of competitive bids.[24] The legal dispute between the two companies escalated until November 2024, when Hanwha Ocean abruptly withdrew its complaint. This was not due to a resolution of the ethical issues, but was a pragmatic business decision made after both companies failed to win a major Australian frigate contract, citing the need to form a "K Defense Industry One Team" for national interests.[28] This resolution leaves the serious allegations of executive-level complicity in corporate espionage unaddressed and suggests that commercial interests, rather than ethical accountability, drove the outcome.

Obstruction of Justice and Evidence Destruction

A separate case reinforces the conclusion of a deeply flawed corporate culture. A former Executive Vice President of HHI was sentenced to one year in prison in a retrial for ordering the systematic destruction of evidence ahead of an investigation by the Korea Fair Trade Commission (KFTC).[31] The KFTC was investigating HHI for violations of the Subcontracting Act, including pressuring suppliers to accept lower payments. In July and August 2018, the executive and his subordinates orchestrated the replacement of numerous personal computers and hard disks to obstruct the KFTC's investigation.[31] The court, in overturning an earlier acquittal, found that this was a "systematic and widespread destruction of materials" sufficient to prevent the discovery of the truth, and that the defendants were fully aware their actions could lead to a criminal case.[31] This conviction of a senior executive for actively and systematically destroying evidence constitutes a clear case of gross economic crime and a profound failure of governance.

Taken together, these two cases—one involving corporate espionage on a major defense project and the other involving the deliberate obstruction of a regulatory investigation by a senior executive—establish a clear pattern of conduct that falls under the scope of § 4g.

4.2 Gross or Systematic Human Rights Violations (§ 4a)

There are persistent and credible allegations concerning labor practices at HD Hyundai's shipyards, particularly regarding the treatment of migrant workers, which raise the risk of involvement in systematic human rights violations.

The South Korean shipbuilding industry is facing a severe labor shortage, which it is addressing by recruiting a large number of foreign workers.[32] However, the conditions for these workers are reportedly poor. A survey conducted in October 2023 by the Korean Metal Workers' Union (KMWU) found that six out of ten migrant workers at the shipyards of HD Hyundai and its competitor Hanwha Ocean wished to change jobs, citing "low wages and tough labour conditions".[34] Specific grievances included being paid less than their Korean colleagues for the same work (34.9% of respondents) and significant occupational health and safety concerns (23.9% of respondents).[34] There are also allegations of contract substitution, where workers are paid less than the amount specified in their original contracts.[34]

These issues contribute to a volatile labor environment, with frequent strikes at HHI and other subsidiaries over wage negotiations and working conditions.[35] The physically demanding and hazardous nature of shipyard work is compounded by these issues, leading to high turnover, including instances of newly arrived foreign workers absconding from their jobs.[39] Furthermore, there have been reports of fatal workplace accidents at HHI and its subsidiary HD Hyundai Samho.[40] The company's response to these safety risks appears defensive; HD KSOE recently hired a former high-ranking prosecutor to lead its compliance department, a move widely interpreted as a strategy to mitigate legal liabilities under South Korea's Serious Accidents Punishment Act (SAPA) rather than a proactive effort to fundamentally improve workplace safety.[41]

Most concerning is the company's lack of transparency and engagement on these issues. The Business & Human Rights Resource Centre invited HD Hyundai to respond to the KMWU survey findings in November 2023; the company provided no response.[34] This was not an isolated incident, as the organization has noted a pattern of non-response from HHI on other human rights-related inquiries.[40] This refusal to engage with a credible international human rights organization on serious allegations is a significant governance failure and prevents any meaningful dialogue or assessment of remedial actions. While the company has implemented some support measures, such as translation services and support centers, these appear insufficient to address the systemic issues of wage disparity and hazardous conditions.[39] The combination of persistent allegations of discriminatory pay and unsafe conditions, coupled with a complete lack of engagement, creates an unacceptable risk of complicity in systematic human rights violations.

4.3 Severe Violations of Individual Rights in War or Conflict (§ 4b)

Beyond its direct sale of military equipment, the broader HD Hyundai group is implicated in human rights violations in conflict-affected areas through the use of its commercial products. A June 2025 UN expert's report and a detailed March 2025 report from Amnesty International have documented the use of heavy machinery manufactured by HD Hyundai in the demolition of Palestinian-owned homes and property in the Occupied Palestinian Territories (OPT).[9]

Amnesty International verified, through images and videos, 59 separate demolitions of Palestinian homes, businesses, and other structures between September 2019 and February 2025 using HD Hyundai machinery.[44] These actions resulted in the forced displacement of approximately 250 people. Such demolitions, when not justified by absolute military necessity, may constitute grave breaches of international humanitarian law and amount to war crimes.[44]

The company's response to these serious allegations has been inadequate. In March 2024, HD Hyundai stated that a review of its dealer's records showed no sales to government agencies for demolition work in Israel and that compliance regulations were followed.[44] More recently, HD Hyundai XiteSolution, the parent company of the construction equipment divisions, responded to Amnesty by stating it "has no involvement with activities in said conflict regions" and did not directly answer the questions posed.[44] This response fails to acknowledge the responsibility of a company to conduct heightened human rights due diligence when its products are sold into a known conflict zone where there is a high risk of misuse. Simply denying direct sales to the end-user is insufficient; under the UN Guiding Principles on Business and Human Rights, companies are expected to use their leverage to prevent or mitigate adverse human rights impacts linked to their operations and products, even when caused by a third party. The failure to implement a robust due diligence process to prevent the foreseeable misuse of its equipment in the OPT constitutes a significant ethical lapse and contributes to the violation of individual rights in a conflict situation.

4.4 Severe Environmental Damage & Unacceptable GHG Emissions (§ 4e, 4f)

In stark contrast to its performance on governance and social issues, HD KSOE demonstrates global leadership in addressing environmental challenges, particularly the decarbonization of the maritime industry. This area represents a significant mitigating factor in the overall risk assessment.

The company is at the forefront of developing and commercializing eco-friendly vessels and propulsion systems. It has pioneered ships capable of running on alternative fuels such as LNG, methanol, and ammonia, and is heavily invested in future technologies like hydrogen power.[16] HHI delivered the world's first large methanol-powered container ship for Maersk and has successfully developed the world's first ammonia dual-fuel engine.[16]

HD KSOE's commitment is further demonstrated through strategic partnerships and R&D initiatives. It is a strategic partner of the Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping, a leading global institution for maritime decarbonization.[23] It is also collaborating with classification societies like Lloyd's Register and DNV to develop advanced technologies, including high-efficiency hybrid propulsion systems integrated with Solid Oxide Fuel Cells (SOFCs) and onboard carbon capture systems using Pressure Swing Adsorption (PSA) technology.[47]

The company has established a clear "2050 Net-Zero Roadmap" and aligns its sustainability reporting with international standards, including the Global Reporting Initiative (GRI), the Task Force on Climate-related Financial Disclosures (TCFD), and the Sustainability Accounting Standards Board (SASB).[46] This commitment to transparency and performance was recognized in 2024 with its inclusion in the Dow Jones Sustainability (DJSI) World Index, a first for a Korean shipbuilder.[46]

Given this proactive and industry-leading approach, there is no evidence that the company is responsible for "severe environmental damage" under § 4e. Regarding § 4f, which addresses unacceptable greenhouse gas emissions, the company's role as a key enabler of decarbonization for the entire global shipping industry likely far outweighs its own operational (Scope 1 and 2) emissions. Its actions are aimed at reducing, not causing, unacceptable levels of emissions on an aggregated level. Therefore, the risk of exclusion under these criteria is assessed as very low. This creates a profound "ESG disconnect," where the company exhibits exemplary performance in the 'Environmental' pillar while demonstrating severe deficiencies in the 'Social' and 'Governance' pillars.

Guideline Clause	Summary of Allegation/Event	Key Evidence Snippets	Company Response/Mitigation	Assessed Risk Level
§ 4g (Corruption/Crime)	**KDDX Secrets Theft:** Nine HHI employees convicted of stealing confidential warship designs from a competitor. Allegations of executive involvement persist.	24	Acknowledged employee guilt but denied executive involvement. Lawsuit withdrawn for commercial reasons, not ethical resolution.	High
§ 4g (Corruption/Crime)	**Evidence Destruction:** Senior HHI executive convicted and sentenced to prison for ordering systematic destruction of evidence ahead of a KFTC investigation.	31	The conviction demonstrates a clear and high-level effort to obstruct justice.	High
§ 4a (Human Rights)	**Migrant Labor:** Persistent allegations of low wages, discriminatory pay, unsafe conditions,	34	No response to inquiries from the Business & Human Rights Resource Centre. Implemented	High

	and contract substitution for migrant workers at shipyards.		some support services but systemic issues remain.	
§ 4b (Rights in Conflict)	**OPT Demolitions:** Documented use of HD Hyundai group's heavy machinery in the demolition of Palestinian-owned homes and property in the Occupied Palestinian Territories.	9	Denied direct sales for this purpose and claimed no involvement in the region, indicating inadequate human rights due diligence.	High
§ 4e, 4f (Environment)	**GHG Emissions:** The company is a global leader in developing and commercializing decarbonization technologies for the maritime industry, including alternative fuels and carbon	16	Has a 2050 Net-Zero Roadmap, adheres to TCFD/GRI/SASB, and is a member of the DJSI World Index.	Low

	capture.			

Geopolitical Risk Exposure and Arms Sales

HD KSOE's business, particularly through its HHI subsidiary, is deeply intertwined with global defense procurement and is increasingly aligned with the geopolitical strategy of the United States and its allies. This positioning creates both commercial opportunities and significant ethical and geopolitical risks for investors, especially under the GPFG's conduct-based guidelines.

5.1 Defense Exports to States in Armed Conflicts (§ 4c)

Guideline § 4c provides a basis for exclusion for the "sale of weapons to states in armed conflicts which use the weapons in ways that constitute serious and systematic breaches of the international rules of engagement".[7] This requires a two-part analysis: whether the client state is in an armed conflict, and whether there is an unacceptable risk that the weapons sold will be used in violation of international humanitarian law.

HD KSOE, through HHI, has secured major naval contracts with nations in regions of high tension and active conflict.

- **The Philippines:** HHI has become a key partner in the modernization of the Philippine Navy, securing a series of contracts for ten vessels, including multi-purpose frigates, corvettes, and offshore patrol vessels.[12] The Philippines is currently engaged in an escalating, low-intensity armed conflict with China over territorial disputes in the South China Sea. This conflict involves regular and hostile confrontations between the two nations' coast guards and maritime militias, including the use of water cannons, ramming tactics, and armed standoffs, which risk escalating into a wider military engagement.[52] The sale of advanced, heavily armed warships [21] directly enhances the naval capabilities of one party in this active conflict. While there is no direct evidence to date that these specific HHI-built vessels have been used to commit war crimes, their deployment in such a volatile and active conflict zone creates a clear and unacceptable forward-looking risk that they could be involved in actions that constitute serious breaches of international law. The sale itself provides material support to a state in an armed conflict, meeting the initial threshold of Guideline § 4c.
- **Peru:** In April 2024, HHI signed a significant contract worth 640.6 billion won with Peru's

state-owned SIMA shipyard for the joint construction of four naval vessels, including a frigate, an offshore patrol vessel, and two landing craft.[20] Peru has been characterized by profound and persistent political instability, with frequent changes in government, widespread social protests, and high levels of corruption.[53] While Peru is not currently engaged in an international armed conflict, its internal political and social fragility presents a risk that naval assets could be used for internal repression or in a future crisis. However, the risk level is lower than that associated with the Philippines.

The contract with the Philippines is the most concerning and directly implicates Guideline § 4c. Supplying advanced naval combatants to a nation actively engaged in a maritime conflict constitutes a material contribution that elevates the risk of involvement in future norm violations.

Client Nation	Contract Details (Vessel Type, Number, Value)	Contract Year(s)	Summary of Geopolitical Context	Relevance to GPFG Guideline § 4c
Philippines	2 Frigates, 2 Corvettes, 6 Offshore Patrol Vessels	2016 - Present	Engaged in an active, low-intensity armed conflict with China in the South China Sea over territorial disputes. High risk of escalation.	**High Relevance:** Sale of advanced warships directly to a state in an ongoing armed conflict. Creates unacceptable risk of complicity in future violations of international humanitarian law.
Peru	1 Frigate, 1 Offshore Patrol Vessel, 2 Landing Craft (Value: 640.6B	2024	High degree of internal political instability and social conflict,	**Moderate Relevance:** Sale of military equipment to a politically

	KRW)		but not currently in an international armed conflict.	unstable state. Risk is primarily related to potential future internal use or regional instability.
New Zealand	1 Auxiliary Support Ship (HMNZS Aotearoa)	Delivered	Stable democracy, ally nation. Deployed for humanitarian and support missions.	**Low Relevance:** Sale of non-combatant vessel to a state not involved in armed conflict.
Vietnam	MOU for comprehensive shipbuilding cooperation. Potential future sales of K9 Howitzers by sister company (Hanwha).	2025	Comprehensive strategic partner of South Korea. Also involved in South China Sea disputes but current cooperation is focused on commercial shipbuilding.	**Low Relevance (currently):** No direct military sales by HD KSOE confirmed. MOU is for commercial shipbuilding. Risk could increase if military contracts are signed.

5.2 Strategic Alignment and US-China Competition

HD KSOE's defense business strategy is explicitly and increasingly aligned with the geopolitical objectives of the United States in the Indo-Pacific. The company is actively positioning itself as a key industrial partner for the U.S. and its allies to counter the rapid expansion of China's naval power and its dominance in global shipbuilding.[56]

This strategic alignment is manifested through several key initiatives:

- **Partnerships with U.S. Defense Primes:** HHI has signed Memoranda of Understanding (MOUs) with major U.S. defense shipbuilder HII and critical component supplier Fairbanks Morse Defense to explore collaboration on naval programs, component manufacturing, and accelerating ship production.[58]
- **Supporting U.S. Shipbuilding Revitalization:** The company is a key participant in discussions around the "Make American Shipbuilding Great Again" (MASGA) project, which aims to leverage South Korean expertise and capacity to help rejuvenate the U.S. shipbuilding industrial base.[59] This follows South Korea's reported commitment of $150 billion to a fund for this purpose.[59]
- **Marketing Based on Geopolitical Need:** HHI openly markets its advanced shipbuilding capacity—including its unique ability in South Korea to design and build Aegis destroyers—as a solution to the U.S. Navy's need to expand its fleet to counter China.[56]

This strategy effectively embeds HD KSOE within the U.S.-led security architecture in Asia. While commercially astute, this business model is predicated on monetizing geopolitical tension. The demand for its advanced naval platforms from countries like the Philippines, and its value as a partner to the U.S., is directly proportional to the perceived threat from China. For an investor like the GPFG, which aims to avoid contributing to conflict and instability, this business model presents a fundamental ethical challenge. It aligns the company's financial success in its defense segment with the continuation, and potential escalation, of great power competition and regional armed conflicts. This exposes the investment to significant geopolitical tail risks, including being implicated in a major power conflict or facing retaliatory actions.

Synthesis and Final Risk Categorization

The final assessment of HD Korea Shipbuilding & Offshore Engineering requires a careful weighing of its deeply contradictory corporate profile. On one hand, the company is an undisputed technological leader in the critical global effort to decarbonize the maritime industry. Its innovations in alternative fuels and green ship design are commendable and align with the long-term sustainability goals valued by responsible investors. This strong performance on environmental criteria serves as a significant mitigating factor.

However, these positive contributions are severely undermined by a pattern of conduct that indicates profound and systemic weaknesses in governance and ethical culture. The analysis has identified unacceptable risks across multiple criteria of the GPFG's conduct-based guidelines. The conviction of HHI employees for corporate espionage in the KDDX case, compounded by the separate conviction of a senior HHI executive for the deliberate destruction of evidence, constitutes "gross economic crime" under § 4g. These are not minor infractions but adjudicated crimes that strike at the heart of fair competition and the rule of law.

Furthermore, the persistent and credible allegations regarding the exploitation of migrant workers, combined with the company's consistent refusal to engage in dialogue with human rights organizations, creates an unacceptable risk of complicity in "systematic violations of human rights" under § 4a. The documented use of HD Hyundai group machinery for the destruction of civilian property in the Occupied Palestinian Territories demonstrates a critical failure of human rights due diligence, implicating § 4b.

Most directly, the sale of advanced warships to the Philippines, a nation actively engaged in an armed maritime conflict, presents a clear and material risk under § 4c. This business activity directly contributes military capability to a conflict zone, creating a high probability that the company's products will be associated with future violations of international humanitarian law. This is further compounded by a defense business strategy that is explicitly designed to profit from the escalating geopolitical competition between the United States and China.

The company's governance posture in response to these issues has been consistently inadequate. Responses have been defensive, legalistic, or, in the case of human rights inquiries, non-existent. The resolution of the legal dispute with Hanwha Ocean was driven by commercial pragmatism, not ethical accountability, leaving the underlying issues of corporate espionage unaddressed. This pattern suggests a corporate culture that prioritizes commercial outcomes over ethical principles and transparency, indicating a high likelihood of future norm violations.

In synthesizing these factors, the severe and systemic nature of the conduct-based risks, particularly in the areas of economic crime, human rights, and sales to conflict zones, must be given greater weight than the company's positive environmental contributions. The ethical breaches are not isolated incidents but form a pattern that points to a fundamental failure of governance at the level of HHI, for which HD KSOE, as the controlling entity, is responsible.

Therefore, the investment in HD Korea Shipbuilding & Offshore Engineering carries a high level of ethical and reputational risk for the Government Pension Fund Global.

Recommended Risk Category

Based on the comprehensive analysis of the available evidence against the Fund's ethical guidelines, the following risk category is assigned:

Final Risk Category: 2 - High Risk

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