



KOREA'S ECONOMY

| 2 | 0 | 1 | 1 |

a publication of the Korea Economic Institute and
the Korea Institute for International Economic Policy



Volume 27

KEI Editorial Board

KEI Editors: Florence Lowe-Lee
Troy Stangarone

Contract Editor: Mary Marik

The Korea Economic Institute is registered under the Foreign Agents Registration Act as an agent of the Korea Institute for International Economic Policy, a public corporation established by the Government of the Republic of Korea. This material is filed with the Department of Justice, where the required registration statement is available for public inspection. Registration does not indicate U.S. Government approval of the contents of this document.

KEI is not engaged in the practice of law, does not render legal services, and is not a lobbying organization.

The views expressed in this publication are those of the authors. While this monograph is part of the overall program of the Korea Economic Institute endorsed by its Officers, Board of Directors, and Advisory Council, its contents do not necessarily reflect the views of individual members of the Board or of the Advisory Council.

All images are from Getty Images, iStock, or were taken by KEI staff.

Copyright © 2011 by the Korea Economic Institute of America.

Printed in the United States of America.

All Rights Reserved.

ISSN 1054-6944



Volume 27

KOREA'S ECONOMY

| 2 | 0 | 1 | 1 |

Part I: Overview and Macroeconomic Issues

Commentary

Korea and the World Economy

C. Fred Bergsten

1

Korea's Challenges and Opportunities in 2011

Chae Wook

3

Analysis

Korea: Economic Prospects and Challenges after the Global Recession

Subir Lall and Meral Karasulu

6

Part II: Financial Institutions and Markets - Focus on Green Growth

Commentary

Korean Green Growth in a Global Context

Han Seung-soo

13

An Ocean of Trouble, An Ocean of Opportunity

Philippe Cousteau and Andrew Snowwhite

15

Analysis

System Architecture for Effective Green Finance in Korea

Kim Hyung-tae

18

Korea's Green Growth Strategy: A Washington Perspective

Haeyoung Kim

25

Part III: The Seoul G-20

Commentary

A Reflection on the Seoul Summit

Paul Volcker

31

The G-20: Achievements and Challenges

SaKong Il

33



Part III: The Seoul G-20 (Continued)

Analysis

Achievements in Seoul and Korea's Role in the G-20 35
Choi Heenam

Africa and South Korea's Leadership of the G-20 42
Mwangi S. Kimenyi

Part IV: External Relations

Commentary

Korea's Green Energy Policies and Prospects 49
Whang Jooho

Analysis

Economic Implications for South Korea of the Current Transformation in the Middle East 52
Han Baran

Korea-Africa: Emerging Opportunities 59
Philippe de Pontet and James Clifton Francis

U.S.-Korea Economic Relations: A View from Seoul 67
Kim Won-kyong

Part V: Korea-China Economic Relations

Commentary

A New Phase in China-North Korea Relations 73
Gordon G. Chang

Analysis

Increasing Dependency: North Korea's Economic Relations with China 75
Dick K. Nanto

Korea-China Economic Partnership: The Third China Rush 84
Cheong Young-rok and Lee Chang-kyu

Part VI: North Korea's Economic Development and External Relations

Commentary

Human Resources and Korean Reunification 97
Nicholas Eberstadt

Analysis

The Economics of Reunification 99
Dong Yong-sueng

Leading Economic Indicators for Korea 105

About KEI 106

KEI Advisory Board 107

FINANCIAL INSTITUTIONS AND MARKETS—FOCUS ON GREEN GROWTH

AN OCEAN IN TROUBLE, AN OCEAN OF OPPORTUNITY

By Andrew Snowwhite and Philippe Cousteau

The author Arthur C. Clarke once wrote, “How inappropriate to call this planet Earth when it is quite clearly Ocean.”

Our history with the ocean is long and complex, from ancient Phoenician mariners who spent their lives plying the waters of the Mediterranean to the giant cruise ships that cross the Atlantic in mere days. The ocean has had a defining influence on our cultural, political, and economic development since *Homo sapiens* first stood upright on the shores of East Africa and stared out upon its vast expanse.

Without a doubt, the ocean nurtures all life on our planet, providing up to 70 percent of our oxygen, regulating our climate, and providing the majority of protein to more than 1 billion people as well as making possible hundreds of billions of dollars for economic growth around the world, from fisheries to energy and commerce. The ocean is key to the survival of humankind and yet, in spite of this, it has long been the refuse dump of civilization, abused and neglected.

A few of these issues are worth exploring in detail as they relate to Asia and the food security and environmental challenges that are becoming more urgent every year. Coral reefs are of particular concern. Although they constitute a mere 0.2 percent of the ocean’s area, they are home to one-third of all marine fish species and tens of thousands of other species, thus representing some of the planet’s most biodiverse and valuable habitats—more biodiverse than rain forests. Coral reefs also serve as natural barriers against the ocean, providing protection from storms and beach erosion for coastal communities around the world. In fact, one mile of healthy coral reef produces between one to three tons of sand per day, a fact that was not lost on the residents of Southeast Asia as there is little doubt that healthy coral reefs would have reduced the damage from the tsunami in 2004.

Unfortunately, an estimated 20 percent of our planet’s coral reefs have already disappeared!¹ In addition, reports “estimate that at least 58 percent of the world’s coral reefs directly are threatened by human activity,”² including coastal development, destructive fishing practices and general overexploitation of marine resources, marine pollution, and increased terrestrial runoff associated with agriculture and deforestation.

Furthermore, fisheries around the world are facing collapse, with some scientists predicting that, barring major management and conservation efforts, most large-scale pelagic (ocean-going) fisheries will collapse by the middle of the century. Of particular concern is shark finning. Sharks are being slaughtered around the world at a rate of 70 to 100 million a year; this rate of extermination is unsustainable and is a global crisis impacting not only sharks but other fisheries as well. Sharks are a critical member of the food chain that keeps ecosystems in balance; without healthy shark populations a domino effect is created that can ripple through the food chain,

1. *Status of Coral Reefs of the World: 2004* (Townsville: Australian Institute of Marine Science, 2004).

2. D. Bryant, L. Burke, J. McManus, and M. Spalding, *Reefs at Risk: A Map-Based Indicator of Threats to the World’s Coral Reefs* (Washington, D.C.: World Resources Institute, 1998).

negatively impacting other more important food stocks. Shark finning is often conducted in developing nations, exporting the problem and causing a humanitarian crisis. Although there is no doubt that cultural traditions should be respected, those that present a serious global threat to both the environment and humans should be reconsidered. The decline of fisheries, and in particular sharks, will have increasingly dire consequences on global food supply and the food security and cultural identity of many countries, especially those in Asia that are so deeply connected to seafood.

Perhaps of greatest concern, however, is climate change. This is essentially an ocean problem originating in the Arctic Ocean, which is in essence the air-conditioning unit of the planet. The high reflectivity of the snow and ice along with long periods of little or no sunlight in the Arctic cause a net loss of heat into space. In addition, the Arctic plays a vital role in regulating the circulation of the Earth's atmosphere and oceans by distributing heat from the tropics to the poles, making the Earth overall a much more habitable place. As sea ice melts, causing less reflectivity and disrupting oceanic currents, this crucial function may change with potentially dire global consequences. The last 13 years have shown a significant annual decrease in summer sea ice levels. Anyone who depends on a stable climate to provide water for drinking, sunlight for agricultural crops, and all the other life-giving functions that it provides—essentially every human being on the planet—faces a much more uncertain and volatile future. As the Earth's population passes the seven billion mark and rapidly heads toward nine billion by the middle of the century, dwindling natural resources are of increasing concern; thus any volatility in the world's climate is of global significance.

According to a report by the World Wildlife Fund, we use 1.5 times the amount of resources that the planet can replenish each year.³ You might say we are like farmers eating our seeds. One recent study is so dire that it suggests that the “world's ocean is at high risk of entering a phase of extinction of marine species unprecedented in human history.”⁴

For industrial nations like South Korea, the stakes are high as increasing competition among populous Asian countries for dwindling resources presents a very serious threat to economic stability and national security. As a member of the Group of 20 and a technological and economic leader in the world, South Korea has an opportunity to lead the way in Asia as a steward of ocean resources and an innovator in conservation and management. From practicing sustainable aquaculture to effective fisheries reform that advocates science-based quotas and the elimination of shark finning, South Korea has an opportunity to pioneer solutions to the fisheries crisis. With respect to coral reefs and other threatened marine ecosystems, South Korea could continue to innovate and export, through foreign assistance and consulting, best practices in coastal development and the establishment and enforcement of effective marine protected areas.

Finally, climate change is a problem that affects all of humanity, but it will take leadership on the part of a small group of innovative countries to pioneer clean technology, effective carbon reduction programs, and investment in developing countries to help them adapt to those shifts in weather patterns (including precipitation), sea level, and increasing food scarcity that will come with climate change.

It is fortunate that South Korea is already showing its leadership regarding ocean issues both regionally and globally. Through hosting Expo 2012 Yeosu Korea, whose theme is the “Living Ocean and Coast,” Korea will educate 10 million visitors about ocean and coastal issues. The Korean government has also made significant commitments regarding greenhouse gases through the National Strategy for Green Growth, which includes an

3. *Living Planet Report* (Gland, Switzerland: World Wildlife Fund, October 2010).

4. A. D. Rogers and D. d'A. Laffoley, *International Earth System Expert Workshop on Ocean Stresses and Impacts: Summary Workshop Report* (Oxford: International Programme on the State of the Ocean [IPSO], June 2011).

emissions reduction target of 4 percent below 2005 levels by 2020 (or 30 percent below the business-as-usual level).⁵ With continued focus on creating solutions to such critical issues and by embracing associated opportunities, South Korea will be well positioned as a 21st-century ocean leader.

Andrew Snowwhite is the cofounder of Azure Worldwide. Philippe Cousteau is the cofounder of Azure Worldwide and CEO of EarthEcho International.

5. Jill Kosch O'Donnell, *The U.S.-ROK Alliance: A Catalyst for Green Growth?* (Washington, D.C.: Asia Foundation, Center of U.S.-Korea Policy, March 2010).

Selected Commentary

Korea and the World Economy

C. Fred Bergsten, Peterson Institute for International Economics

Korea's Challenges and Opportunities in 2011

Chae Wook, Korea Institute for International Economic Policy

A Reflection on the Seoul Summit

Paul Volcker, Former Chairman of the Federal Reserve

The G-20: Achievements and Challenges

SaKong Il, Korea International Trade Association

Korean Green Growth in a Global Context

Han Seung-soo, Global Green Growth Institute

Korea's Green Energy Policies and Prospects

Whang Jooho, Korea Institute of Energy Research

Additional Commentary and Analysis

Korea: Economic Prospects and Challenges after the Global Recession

Achievements in Seoul and Korea's Role in the G-20

Africa and South Korea's Leadership of the G-20

Korea's Green Growth Strategy: A Washington Perspective

An Ocean in Trouble, An Ocean of Opportunity

System Architecture for Effective Green Finance in Korea

Economic Implications for South Korea of the Current Transformation in the Middle East

Korea-Africa: Emerging Opportunities

U.S.-Korea Economic Relations: A View from Seoul

A New Phase in China-North Korea Relations

Increasing Dependency: North Korea's Economic Relations with China

The Economics of Reunification

Human Resources and Korean Reunification

Korea-China Economic Partnership: The Third China Rush



Korea Economic Institute

1800 K Street, N.W.
Suite 1010
Washington D.C., 20006