Economic Balance of Powers after the Crisis

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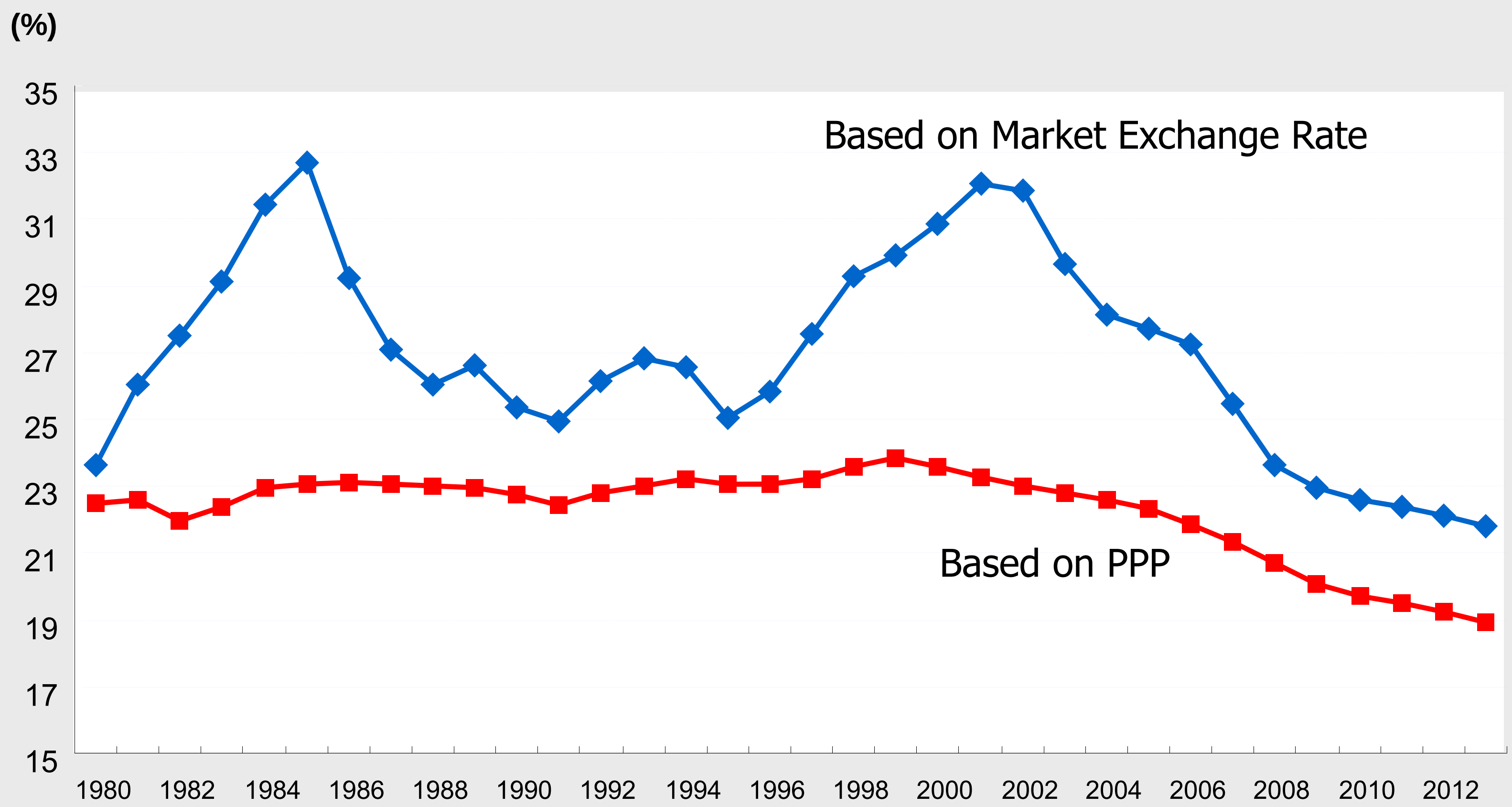
The Fate of Pax Americana: The Biggest Uncertainty

How much longer will the US lead the global economic order?

		Present (2007)		2020, 2030
Economic Power	Economic Size (GDP)	US (26%), EU (31%) Asia (22%)	Resource Power	Seismic Shift in the Global Economic Hegemony
	Financial Power, Science & Technology	Absolute Advantage of the US		
Key Currency (International Monetary System)		Pax Dallarium (Dollar 65%, Euro 26%)		
Global Governance (Influence within International Organizations)		US leadership	Regional-ism	

Weight of US Economy on the Skids Since 2000

Global Weight of US GDP

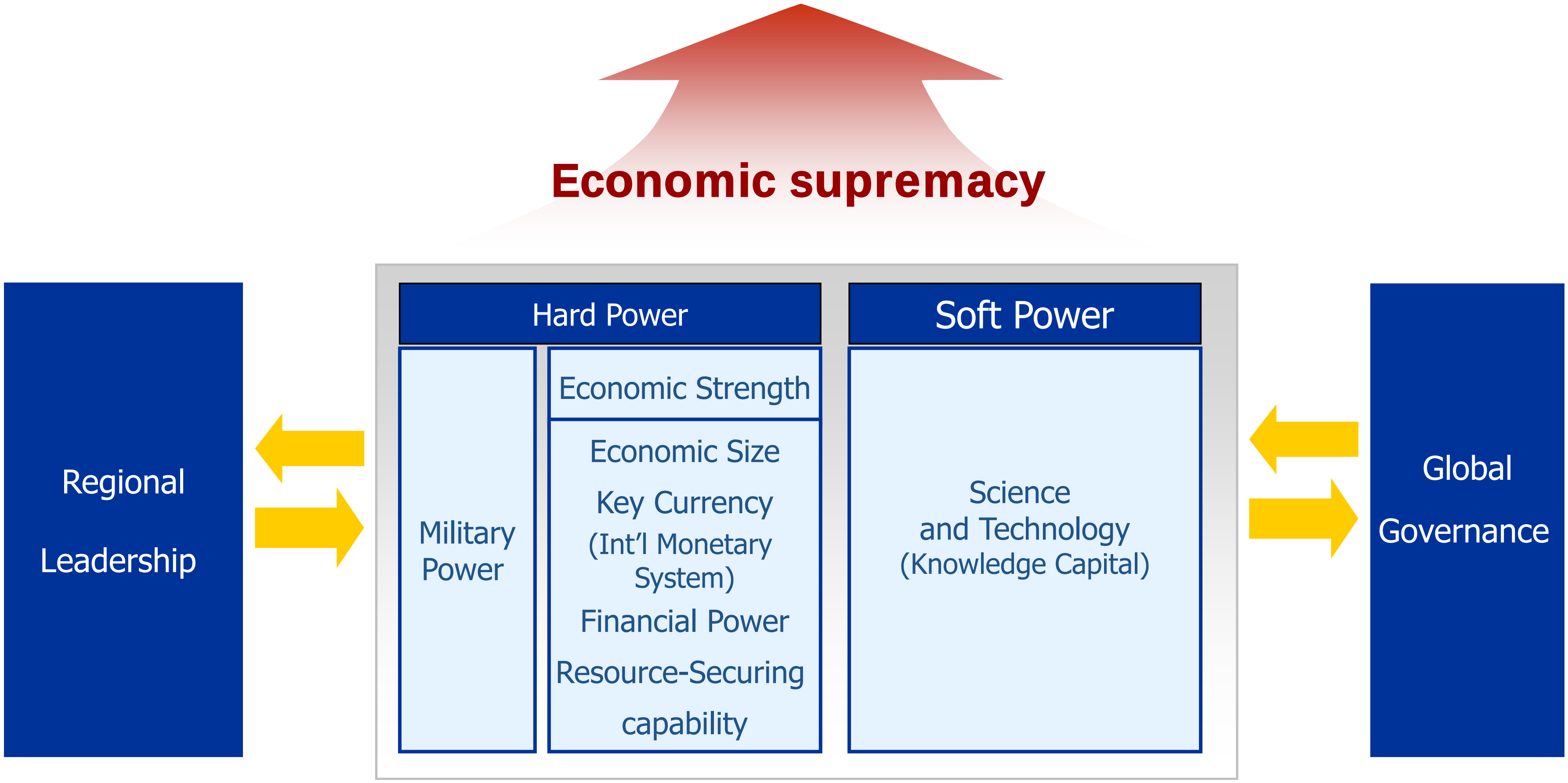


Source: IMF, World Economic Outlook DB, Oct. 2008

Key Research Questions

- How will regional weights in the world economy change over the next 10-20 years?
- What impact will financial power and technological prowess have on altering the paradigm of the world economy?
- Will natural resources become a critical variable in the change of the world economic paradigm? What will be their impact on industrialized and emerging countries?
- How will the regionalism evolve from a mid- and long-term view?
  Will the Asian economic integration make progress?
- How will the dollar-centered international currency system (pax-dollarium) be reorganized in the future?
  - Outlook for change in the weight of euro as the world's key international currency and the possibility of the yuan and yen becoming the world's main reserve currency
- How will the governance system of the world economy change in the future,
  and who will lead it?
  - The roles of international organizations, nation-state, NGOs and global companies as main entities setting the global agenda

Research Framework



Note: Military power and political/diplomatic power, another component of soft power, were excluded in the research.

1. Economic Scale

Current Status

- Since the early 20th century, the US has been the top economic power in the world.
  – World's largest consumer market

- The US's economic weight has fallen steadily since 2000.
  – 2000: 32% → 2007: around 25%

- Emerging economies, including BRICs, are growing rapidly.
  – Average growth of 6.9% during 2002-2007 (Global economy grew 3.3%)
  – Weight of BRICs: 5.3% in 1992 → 12.8% in 2007

- China showed especially fast growth.
  – Annual average growth of 10% since entering WTO in 2001
  – IMF predicts China will overtake Japan in 2010 to become the No. 2 economy

Mid/Long-term Forecast

- Global economy is expected to slow down.
  – Despite a rise in productivity driven by technical innovation, global economic growth will slow overall due to aging population and shrinkage in economically active population
- Emerging countries will lead the global economic growth.
  – US: 2-3% growth (inflow of immigrants and productivity improvement)
  – Euro: 2-3% → 1-2% growth (shrinking labor population)
  – Japan: 1-2% growth (rapidly aging population)
  – China: 6-7% growth → 4-5% growth from 2020 (declining economically active population and slowing productivity growth)
  – India: 6-7% growth (growing population and productivity improvement)
- As early as 2026, China may replace the US as the world's largest economy.
- India is expected to overtake Japan in 2023.
- Economic weight of BRICs will continue to rise.
  – 16.1% in 2010 → 25.1% in 2020 → 31.7% in 2030

Basis for Future Prospects

- Estimates of major countries' GDP up to 2030 using "Growth Accounting Model"
  - To form mid/long-term predictions on the size of major economies, IMF's forecasts were used up to 2013 and a growth accounting model for 2014-2030
    - Growth Accounting Model: Includes population, capital stock and productivity as growth factors
- Predict major countries' GDP using different foreign exchange rate scenarios
  - Difference in productivity growth affects foreign exchange rates (Balassa-Samuelson effect)
    - Scenario 1: applied 50% of difference in productivity growth
    - Scenario 2: applied 33%
    - Scenario 3: maintained the current foreign exchange rates
- The possibility and timing of China overtaking the US as the world's largest economy depends on whether China can properly handle risk factors.
  - Sociopolitical instability, asset bubble burst, resource crisis

Overtaking by China and India by Scenario

	Scenario ① (Basic Scenario)	**Scenario ②** (Slight Change in Foreign Exchange Rates)	**Scenario ③** (No Change in Foreign Exchange Rates)
China > US	2026	**2029**	2042
China > 15 Euro Countries	2025	2027	2035
India > Japan	2023	2025	2029
India > 15 Euro Countries	2042	2047	Impossible by 2050
India > US	2046	Impossible by 2050	Impossible by 2050

Overtaking by China When Risks Occur

	Scenario ① (Basic Scenario)	**Scenario ②** (Slight Change in Foreign Exchange Rates)	**Scenario ③** (No Change in Foreign Exchange Rates)
China > US	2028	**2030**	2042
China > 15 Euro Countries	2027	2029	2035

2. Key Currency (Int'l Monetary System)

Current Status

- Since the World War II, US dollar has been the world's key currency.

- The Bretton Woods system created the key currency
- US dollar remained as the key currency thanks to the US's economic power, financial network and the absence of competing currency

- Despite the rapidly rising status of Euro, US dollar still holds over 60% share.

- Foreign currency reserve (as of the end of June 2008): 62.5% is US dollar, 27% is Euro
- Foreign currency assets held by private banks: 55.3% is US dollar
- Foreign transactions: 86.3% is US dollar, 37% is Euro
- Outstanding amount of international bonds (Sept. 2008): US$8.2 trillion, 10.8 trillion euro

Mid/Long-term Forecast

- US dollar will remain the leading currency.

- Due to abundant liquidity in financial market and network effect

- Euro will become a powerful competing currency, resulting in a bipolar currency system of US dollars and euros.

- After the global financial crisis, restructuring in the international financial order will alter the US-led global currency system

- Chinese yuan will become a regional currency in Asia.

Basis for Future Prospects

Euro(Economic Integration of Europe) and Yuan (China's Economic Growth) Make Remarkable Advances

- **Determinants for key currency**
  - Size of economy and trade, macroeconomic and monetary stability, development of financial market, external network effects
    - Size of trade and macroeconomic/monetary stability: Euro holds superiority
    - Size of economy, development of financial market, external network effects: US dollar holds superiority

- **US fiscal and current account deficits will erode credibility of US dollar**
  - Fiscal deficit expected to reach 9.7% of GDP by 2011 due to bailout program for banks and economic stimulus package
  - Stability of US economy and dollar weakens because of sharp rise in US current account deficit and foreign debts
  - Foreign currency reserves of emerging countries further increase
    - China's foreign currency reserve expected to swell to more than US$3 trillion in 2015 from the current US$2 trillion

- **Eurozone advances its economic integration and expansion of economy and trade**
  - Based on the size of economy and trade of the Euro zone, weight of euro may be 40% (Bergsten)
  - However, euro also has restrictions such as unfavorable conditions caused by network effects, lack of central supervisory organization and relative weakness of treasury bond markets

- **Yuan's role in the Asian economy expands**
  - With China emerging as the largest economy, yuan's international role strengthens
  - However, outdated financial sector and economic instability hinder yuan from serving as a global key currency

3. Financial Power

Current Status

- US holds dominant position in all areas that create financial power; financial hub, center of financial assets and institutions.

- US holds 56.1% of the world's financial assets
  - 34% of bonds (as of 2006)
  - Stock market capitalization: 4.5 times that of Japan, the world's second-largest market
- Among the world's ten major banks, three are US banks
- New York is the global financial hub
  - Except for London, most other financial hubs specialize in narrow financial services

- US maintains financial power based on its key currency status and advanced financial acumen.

- U.S .Dollar Recycling Mechanism
  - US's current account deficit → Increasing liquidity in countries with current account surplus → Swelling foreign currency reserve of these countries → Investment in the US
- US has quality workforce, core factor of financial industry

- Financial crisis caused contraction in US investment banks.

Mid/Long-term Forecast

- Financial power of Europe and emerging countries will strengthen.

- Significant advancement expected in sovereign wealth funds and emerging countries

- Absolute financial power of the US will weaken but its superior status will continue.

- In the wake of the financial crisis, the US financial industry will undergo a temporary contraction
- US will continue to hold competitiveness thanks to large comprehensive financial groups
  - Commercial banks and investment banks combined

- Financial power will be divided between the US and Europe.

- Impact of China's rapidly growing financial power will be limited to Asia.

Basis for Future Prospects

Determinant: Whether the Europe and Emerging Economies can catch up with the US when the latter's financial power is weakened

- Strengthening of the EU and emerging economies' financial power
  - The global weight of commercial banks are migrating to the EU and emerging economies.
  - Increasing influence of oil money in the Middle East and sovereign funds mainly consisting of Asian capital.
    - As of 2006, sovereign wealth funds amounted to US$2 trillion, outweighing hedge funds (US$1.6 trillion) and private equity funds(US$0.7 trillion).
  - The EU integrated the financial markets of the EU countries and took the UK's role, the international financial center of the Europe.

- Contraction of the US investment banking industry due to the financial crisis
  - The US financial institutions pursued reckless business expansion through leveraging activities and now face consequences → Corporate restructuring is inevitable
  - Due to tightened regulations on investment banking service, investment banks will contract over the short term

- The US seeks a breakthrough by cooperating with European and Middle Eastern capitals
  - The US and the UK will cooperate to maintain their vested rights in the international financial system.
  - Expanding the EU-US Financial Markets Regulatory Dialogue (FMRD) contributed to strengthening the bilateral cooperative system.

- China is limited in establishing soft infrastructure.
  - Soft infrastructure such as experts and systems are essential to forming a global financial hub.
  - China has a limit to sharing common values with other countries, such as parliamentary democracy, fair competition, constitutionalism, and English.

4. Capability to Secure Natural Resources

Current Status

- Competition among big players to dominate the oil market

- Five major oil companies and five state-owned oil companies of oil-producing countries dominate the oil market.

- UK and US major oil companies account for one-third of the world's oil production.

- State-owned oil companies of China and India secure resources.

- International oil prices plunged due to global recession but the possibility of resource crisis still exists.

- The demand and supply system of oil resources is inherently unstable.
  - With declining oil production, economic development of emerging economies such as China and India boosts oil demand.

- A global economic rebound can again expose a shortage of natural resources.

Mid/Long-term Forecast

- Natural resources have always been an obstacle to sustainable growth of the global economy.

- Further competition between emerging and highly industrialized countries to secure more natural resources will be inevitable.

- Changing paradigm in countries' efforts to secure resource hegemony.

- Countries will pay more attention to developing renewable energies and energy-efficient technologies rather than securing more fossil fuels.

- The Europe and the US will maintain their resource hegemony.

- They are superior in securing development rights of overseas resources, leaders in sophistication of the industry and the development of renewable energies.

- Emerging countries (China/India) will step up efforts to secure fossil fuels by leveraging their ample capital.

Basis for Future Prospects

In the long run, industrialized countries will change the competition paradigm to seek resource hegemony by developing renewable energies

- **Highly industrialized countries are making advances in energy efficiency and new/renewable energies.**
  - With the post Kyoto protocol taking effect, highly industrialized countries continue to focus on the development of renewable energies regardless of oil price direction.
  - They are trying to reduce dependency on fossil fuels by developing new/renewable energies and alternative energies.
    - The US will invest US$150 billion for the next ten years starting from 2009 to develop new/renewable energies and clean energies ('New Apollo Project')
    - The EU imposes strict regulations on carbon emission of autos as well as airplanes.
    - The UK will construct as many as 4,000 wind power plants by 2020.
    - Japan is implementing the "Fukuda Vision," which includes the development of highly efficient natural gas and coal and thermal power generation.

- **Emerging countries such as China and India will continue efforts to secure resources to meet economic needs.**
  - China's oil demand will likely increase by 50% between now and 2030 → Securing energy resources will be an important variable in realizing the nation's economic growth potential.
  - Emerging countries are focused on securing fossil fuels by employing their ample capital. The effort is part of their national strategy.
  - However, it will be difficult for them to overcome their technological weakness in developing alternative energies.

5. Science & Technology (Knowledge Capital)

Current Status

- Since World War II, the US has led in science and technology.
- The US holds a superior position in the science and technology sector.

- The US ranks first in terms of science and technology competitiveness according to the IMD.
- The US accounts for one third of the world's R&D.
- The US has 54 universities included in the world's top 100 universities(2007)
  - Only six Asian universities on the list.
- The US ranks first in terms of the numbers of science papers and novel prize winners.
- The US ranks first among Triad Patent Families
- The US is the world's biggest technology exporter and posts trade surplus in technology sector.
  - The US exported US$75.4 billion technology in 2006 with surplus of US$50 billion.
  - Germany, the second-biggest technology exporter posted US$34.3 billion in technology exports in 2006.
- The US is superior in terms of corporate competitiveness.
  - There are 152 US companies included in the Fortune's global top 500 list.
  - The US accounts for 63% of the total value of the world's top 100 brands.

- China is chasing highly industrialized countries based on its strong economic power.

Mid- and Long-Term Outlook

- The US will maintain its hegemony in the scientific and technology sectors until 2030.

- Competitor countries will pose a threat to the US in some of high-tech industries.

- Countries with advanced technologies such as the US will continue to take the lead in the high-tech sector until 2020.
- China could jump to No. 2 globally by 2030 in terms of technology development.

- R&D investment of China will likely amount to US$300 billion in 2020, surpassing those of Germany and Japan.
- China will rise as an Asian technology powerhouse in terms of the number of papers, the number of citations, and competitiveness of universities.
- In some areas, China and India could surpass the US in terms of scientific knowledge.

Basis for Future Prospects

Securing superior human resources will determine winners in technology hegemony

- In the short term, no country will threaten the superior position of the US.
  - The US is superior in all areas such as input (R&D) – process (competitiveness of universities)- output (corporate and technological competitiveness)
  - The US values creativity and is the gathering place for the world's best brains.
  - The US has culture which respects innovation and entrepreneurship.
  - However, there could be contraction in US R&D activities in the short term as companies will experience difficulties in financing due to the global financial crisis.

- China, fueled by its fast economic growth, will rapidly expand her technological capability.
  - China's vast market and huge population will be advantageous to test fusion and application of new technologies.
  - The number of researchers is rapidly increasing: By 2020 the number of Chinese people with a PhD could exceed those in the US.
  - China is rapidly increasing R&D investment.

- Securing superior human resources will determine who attains hegemonic power in the global technology sector.
  - Many countries are revising policies to attract more foreign students who want to study the science and engineering.
    - The US : Increasing incentives for experts, revising the visa issuance system.
    - The EU : Attracting EU citizens with a US doctoral degree to the EU, Improving visa issuance system.
  - Emerging countries are improving research environment and housing environment to attract those who studied abroad.

6. Regional Leadership

Current Status

- Regionalism is spreading around the world.
- Strengthened regional integration for FTA and economic/political integration
  - Intensified competition to increase power among superpowers (i.e., EU and the US)
- EU is most advanced economic community.
  - Seeking political integration following economic integration
  - 16 out of 27 members using euro
- The US is now on track to establish the FTAA with Latin America, based on NAFTA.
  - South America is seeking its own union with 12 countries participating.
- From an economic perspective, East Asia has formed "de facto regionalism"
  - Asian region also seeks regional integration in earnest (i.e., ASEAN+3)

Mid/Long-Term Forecast

- Through the spread of FTAs, free trade system promoted by WTO is realized.
- Regionalism will accelerate further.
  - Regionalism, which was limited to trade and investment, expands in financial and monetary sectors.
- Tripolar System formed among Americas, Europe and Asia
  - The Americas: Forming Common Market
    - North America: Seeking common market led by the US
    - South America: Common currency
  - Europe: Realizes United Europe
  - East Asia: Forming "de facto common market"
    - Under Japan's check, regional community led by China is formed
- EU and US spearhead regionalism; Asia centering on China emerges as a counter force.

Basis for Future Prospects

Global Financial Crisis and Economic Stake Intensifies Regionalism (Regional Integration)

- Strengthened Regional Cooperation to Overcome Global Financial Crisis
  - Realizing the need to find guaranteed shelter under extreme crisis
  - Financial crisis has served as an opportunity to expand regional integration into financial and monetary concerns, broadening outside traditional trade and investment contacts
  - Regional integration will probably strengthen further in Europe, Asia and elsewhere.

- Amid decreasing Sstatus of the US as absolute power, competition to integrate nation-states in regions among superpowers has intensified.
  - Economic stakes act as a catalyst to encourage regional integration, rather than political/diplomatic bonds.

- How to Resolve Conflict between Leaders and the Rest of Them in Regional Integration Will Determine success in Power-Gathering Competition
  - EU and the US whose power concentration within the region is high, have upper hand while Asia has obstacles such as still strong nationalism, competition between China and Japan, and historical problems.

7. Global Governance

Current Status

- Due to progress of globalization, global governance became more important

-Global governance is a system to address issues that cannot be easily solved at individual country level
-Meaning ability to set international norms
-Spreading into various sectors such as international politics, economy, society, culture and environment

- Industrialized countries (i.e., the US and EU) are leading the decision making.

-The US and Europe are exclusively taking presidents of IMF, World Bank and OECD, and voting right is assigned in favor of advanced countries

- Rising voice of emerging countries (along with their economic growth) is challenging US-led global governance.

Mid/Long-Term Forecast

- Through Atlantic cooperation with Europe, the US seeks to maintain leadership

-Decreasing US influence as superpower
-Increasing voting right of EU, which is equipped with soft power
-Taking pan-global issues in advance such as global warming

- China emerges as a counter-power to the US

-China wants to act as a leader among emerging countries.

- Emergence of regional governance, which replaces global governance
- Wider diversity of global governance participants

-Countries, international bodies, NGOs, multinational corporations, etc.

Basis for Future Prospects

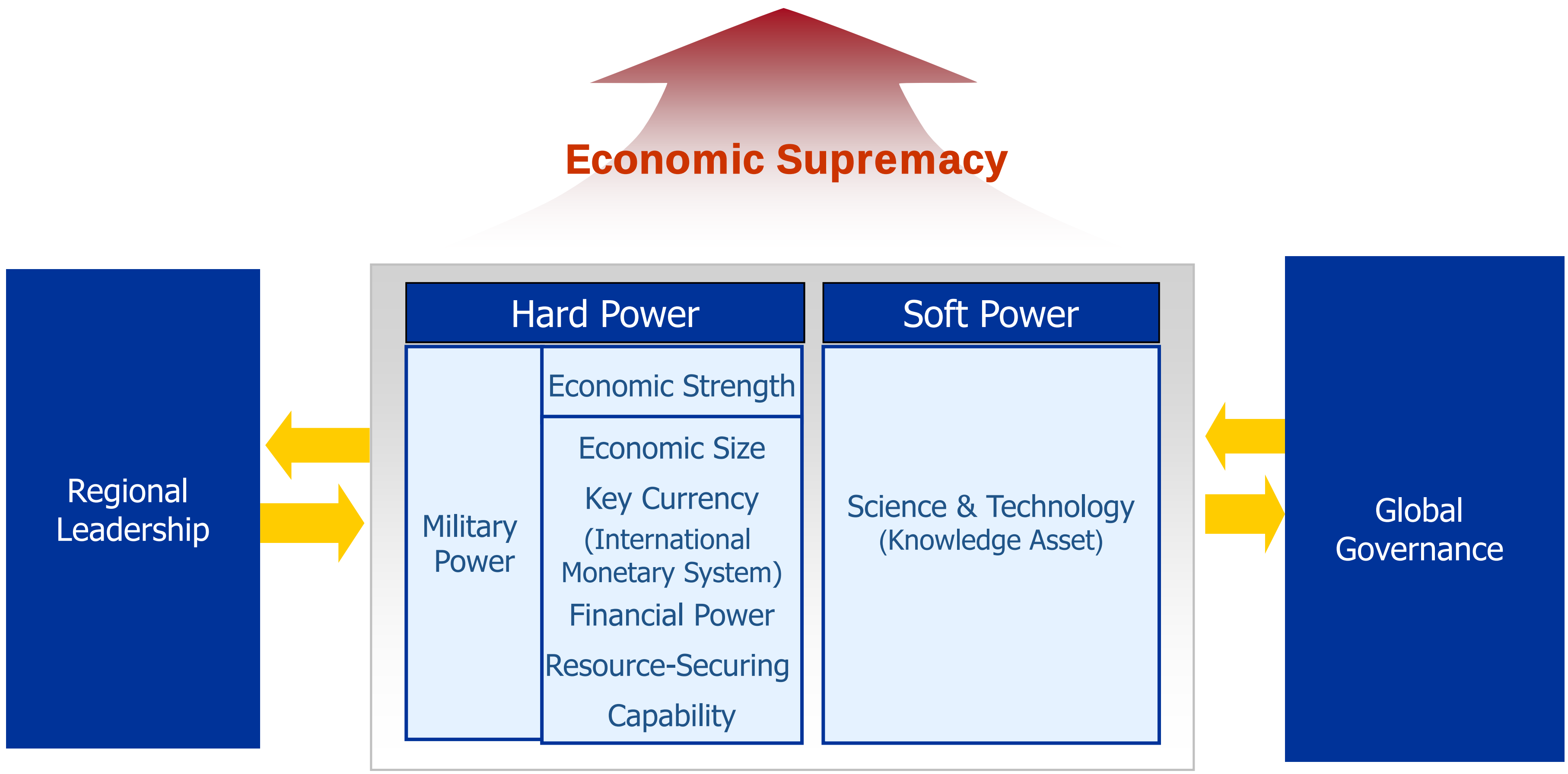
EU (Soft Power) and China (Strengthened Charm Offensive) Challenge US-Led Global Governance

- Industrialized Countries Will Inevitably Recognize Strengthened Economic Power of Emerging Countries
  - G8, without participation of emerging countries, cannot solve pending global issues on their own
    - Operation of G20, instead of G8, to overcome financial crisis
  - To solve debts of advanced countries in the process of overcoming crisis, funds from emerging countries are needed
  - Due to increased foreign currency reserves of emerging countries, IMF’s role became unclear

- The US Needs to Secure Supporters to Maintain Vested Interests
  - Ongoing discussions to expand global governance from the G8 to the G14 or G20

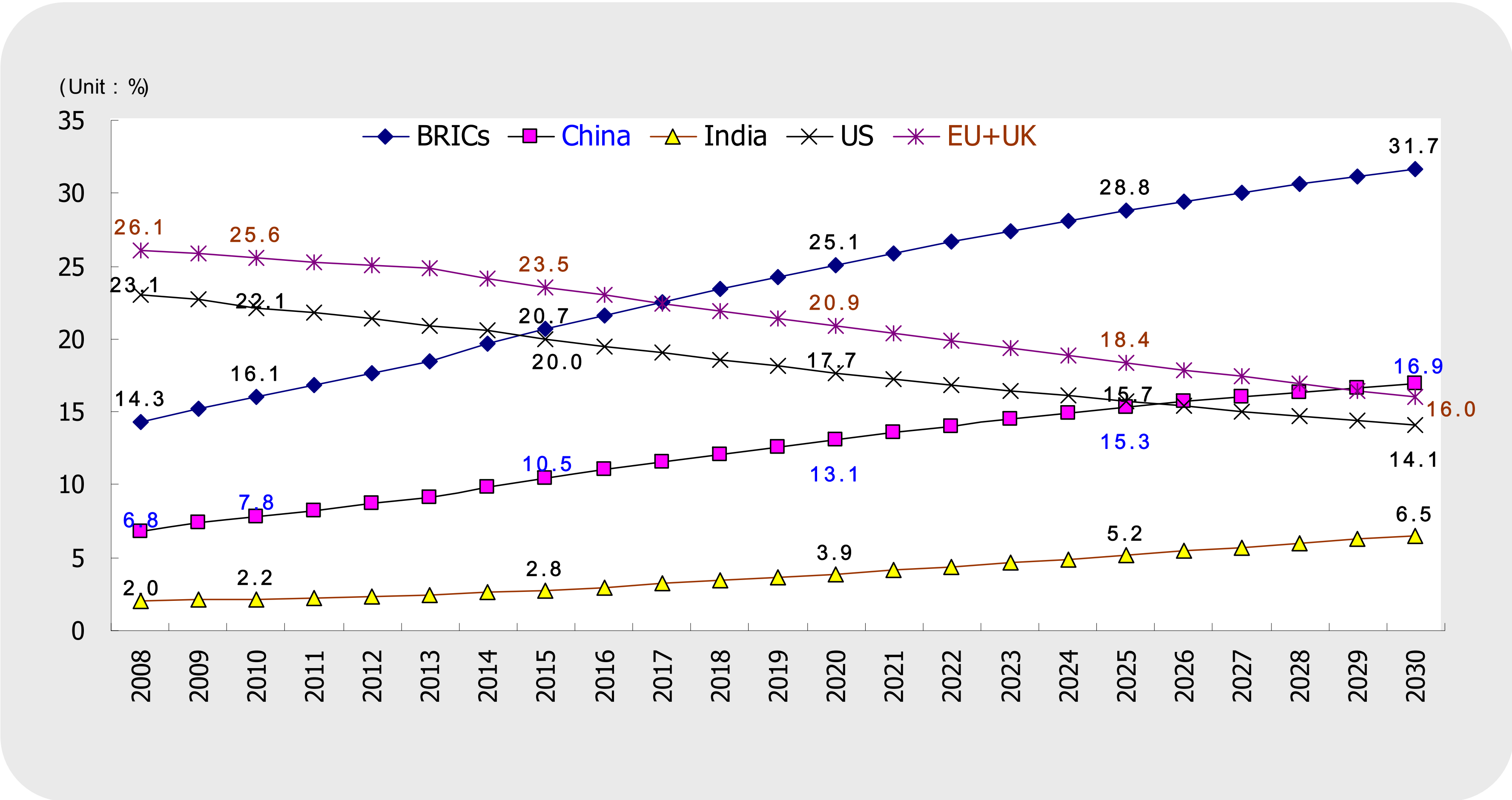
- China is Bolstering a Charm Offensive toward Emerging Markets
  - Due to financial crisis, China is actively improving relationships with Africa, South America and Russia
  - Focusing on the spread of Beijing consensus, rather than Washington consensus
- EU, a Model for Regional Integration, is Increasing Its Role as a Conflict Mediator in the International Community
  - In realizing political integration, EU is further strengthening diplomatic power (soft power) through harmonious foreign policies of member countries

Economic Power Index



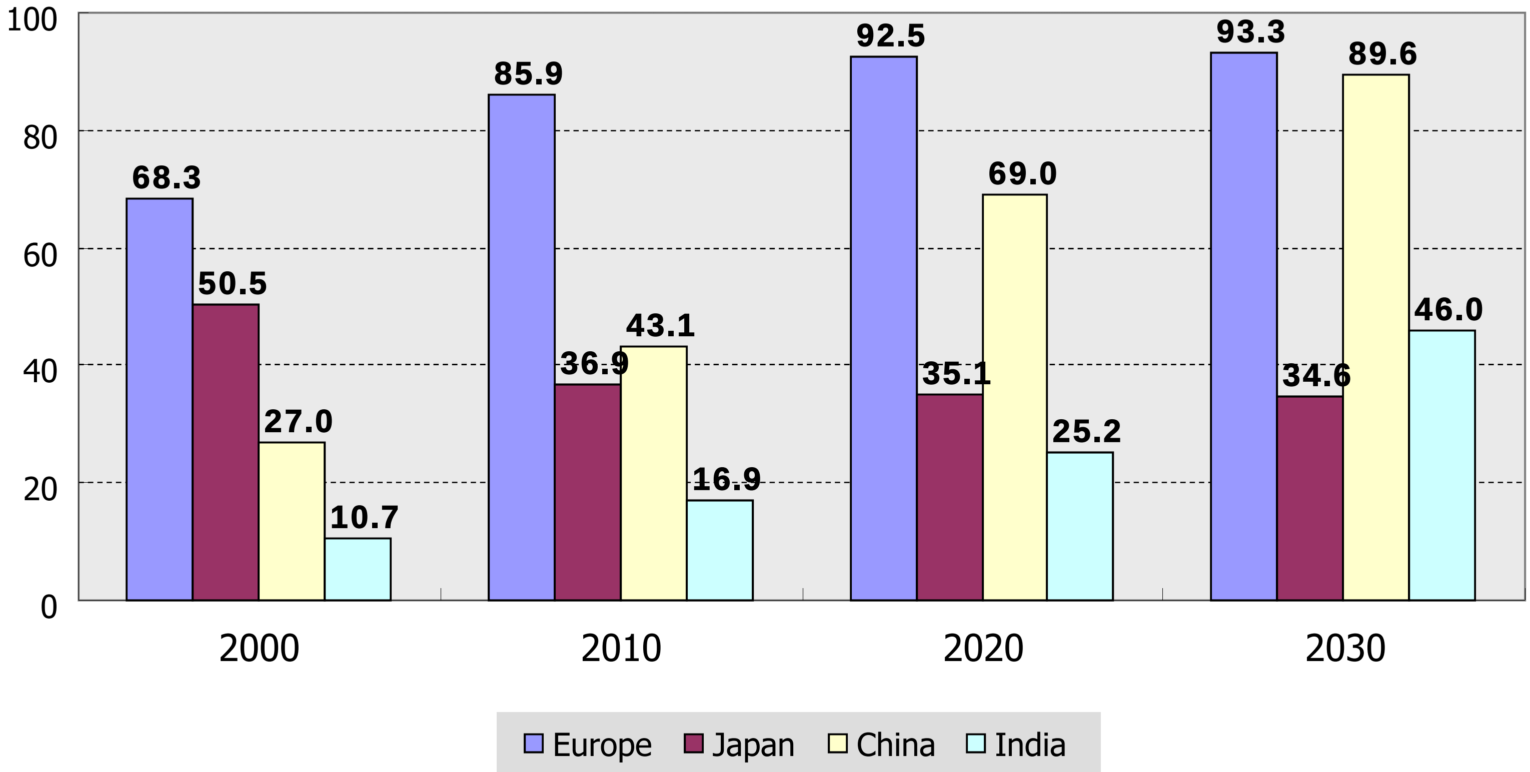
Note: Military power and political/diplomatic power, another component of soft power, were excluded in the research.

Outlook for the Change in Economic Weight of Major Countries from Mid- to Long-Term Perspectives



Creation of a Tri-polar Global Structure by 2030

SERI EPI (Economic Power Index)



Note : The Economic Power Index (EPI) represents the sum of comparative scores based on the outlook in seven areas (US=100) – economic scale, key currency, financial power, resource-securing capability, science & technology, regional leadership, and global governance.

Europe and China Threaten US Leadership on Many Fronts

Outlook for the Change in Global Economic Leadership in 2030

Classification	No. 1 country	No. 2 country	Remarks
Economic scale	China	Europe/US	Key variables include the impact of the financial crisis, foreign exchange rate and the economically-active population
Key international currency (International monetary system)	US (dollar)	Europe (euro)	Yuan will serve as a key regional currency in Asia
Financial power	US	Europe	Two pole system: US and Europe
Science and technology	US	China	Key variables include the acquisition of brains and financial power
Resource-securing capability (Resource power)	US	Europe/China	Paradigm change in competition for resource hegemony Stumbling blocks against the continuous growth of emerging economies
Norm-setting ability (Global governance)	US/Europe	China	The integrated Europe will have a stronger say
Regionalism	Europe	US/China	Three-pole system
Overall overview	US	Europe/China	The US will maintain the economic hegemony

Global Financial Crisis Stimulates a Change in Economic Paradigm

Global Financial Crisis and the Change in Global Economic Paradigm

- The global financial crisis paved the way for China to shorten by more than two years the time necessary to catch up with industrialized countries, including the US.
  - The US and Europe underwent "two lost years" due to the financial crisis and Japan for 4-5 years.
- Change in key currency and international monetary system
  - Amid global negotiations on how to reform the Bretton Woods system, the position of the greenback as a key international currency is weakened.
  - The weakening of the greenback reappeared on the global stage due to the oversupply of the US dollars.
- The absolute position of the US and the UK as financial superpowers is weakened
  - Regulations are tightened on financial institutions and financial derivatives
  - Reliance on oil money and Asian money is deepened due to massive amount of government bonds issued to reduce fiscal deficits
- Resource-securing capability (Resource power)
  - Investment remained sluggish due to financial crisis, emerging as a risk factor in future resource supply and demand → It is likely that commodity prices could pick up again when the global economy recovers from recession.
  - Backed by ample capital reserves, China could secure natural resources in a more favorable condition
  - As part of economic stimulus plans to overcome the economic crisis, industrialized countries pursued the "Green New Deal" policies

    → A shift in the paradigm of competition to get the resource power (fossil fuels → clean energy)
- Global governance (Norm-setting ability)
  - The status of the US as a world superpower is weakened, while emerging countries leap forward (G8 → G20)
- Regional leadership (Power-gathering ability)
  - Regional integration spreads from trade and investment issues to finance and currency.
  - China strengthens its "Charm Offensive" : The scope expands toward ASEAN, central Asia and Africa

Global Economic Order in 2030

- Tri-polar system
  - The US maintains the largest clout in the world thanks to its military and technological superiority.
  - Once it becomes politically integrated, Europe will emerge as a key force in international peace and mediation work on the back of its soft power and new values.
  - Backed by its huge economic scale, China will likely play the role of the epicenter of Asia and emerging markets.

- The next 20 years (2010-2030) will be a period of transition in global economic order
  - The US hegemony will gradually weaken
  - Key variable in the shift of global economic order is the emergence of BRICs, especially China.

- The biggest uncertainty lies on how China and India will evolve in the future
  - The most important variable is how China's political and economic system will change.

China's Emergence Could Spark Both Growth and Conflicts

2030 Scenario for Global Economic Order

◎ The keywords of the 2030 world economy are "growth and stagnancy" and "harmony and disharmony."

○ It is a question of whether the world economy can sustain its dynamism.

- Growth (60% possibility?)
  * Globalization expands market opportunities. Technology innovation leads to new growth.
- Stagnation (40% possibility?)
  * Economic growth declines amid population aging. The world faces limits in growth due to energy and environmental problems.

○ How to resolve global issues such as environment and poverty and resolve various conflicting interests.

- Harmony (40% possibility?)
  * Market and democratic values set as common human values. China leads international cooperation as a mature superpower.
- Disharmony (60% possibility?)
  * The emergence of China as an unbalanced power (meaning not fully accepting market economy and democracy, while becoming the biggest economy) leads to a clash between western values and non-western values.