Economic Globalization Redux

經濟全球化的困境與前景

Lawrence J. Lau 劉遵義

Ralph and Claie Landau Professor of Economics, The Chinese University of Hong Kong
And
Kwoh-Ting Li Professor in Economic Development, Emeritus, Stanford University

YU Chi-Chung Lecture
National Central University
Taiwan, 9 May 2017

Tel: +852 3943 1611; Fax: +852 2603 5230
Email: lawrence@lawrencejlau.hk; WebPages: www.igef.cuhk.edu.hk/ljl

Outline

- Introduction
- The Effects of Economic Globalization
- The Benefits of Economic Globalization
- The Creation of Domestic Winners and Losers
- The Costs of Economic Globalization
- Possible Policies for Mitigating the Costs of Economic Globalization
- Concluding Remarks

Introduction: The Meaning of Economic Globalization

- Economic globalization means the growth of international trade, cross-border direct investment and portfolio investment, and cross-border flows of financial capital, human capital and labor around the world.
- Economic globalization is not new—The Silk Road in China in the Tang Dynasty (and even earlier), The Portuguese ventures to India, China, Taiwan and Japan, the Spanish conquests of Latin America and the Philippines, the Dutch and English East India Companies, and the China Clippers of the U.S.
- However, the speed of globalization has greatly increased within the last several decades because of many reasons to be discussed below.
- According to Thomas Friedman's best-selling book, The World is Flat, economic globalization now reaches virtually every corner of the Earth.

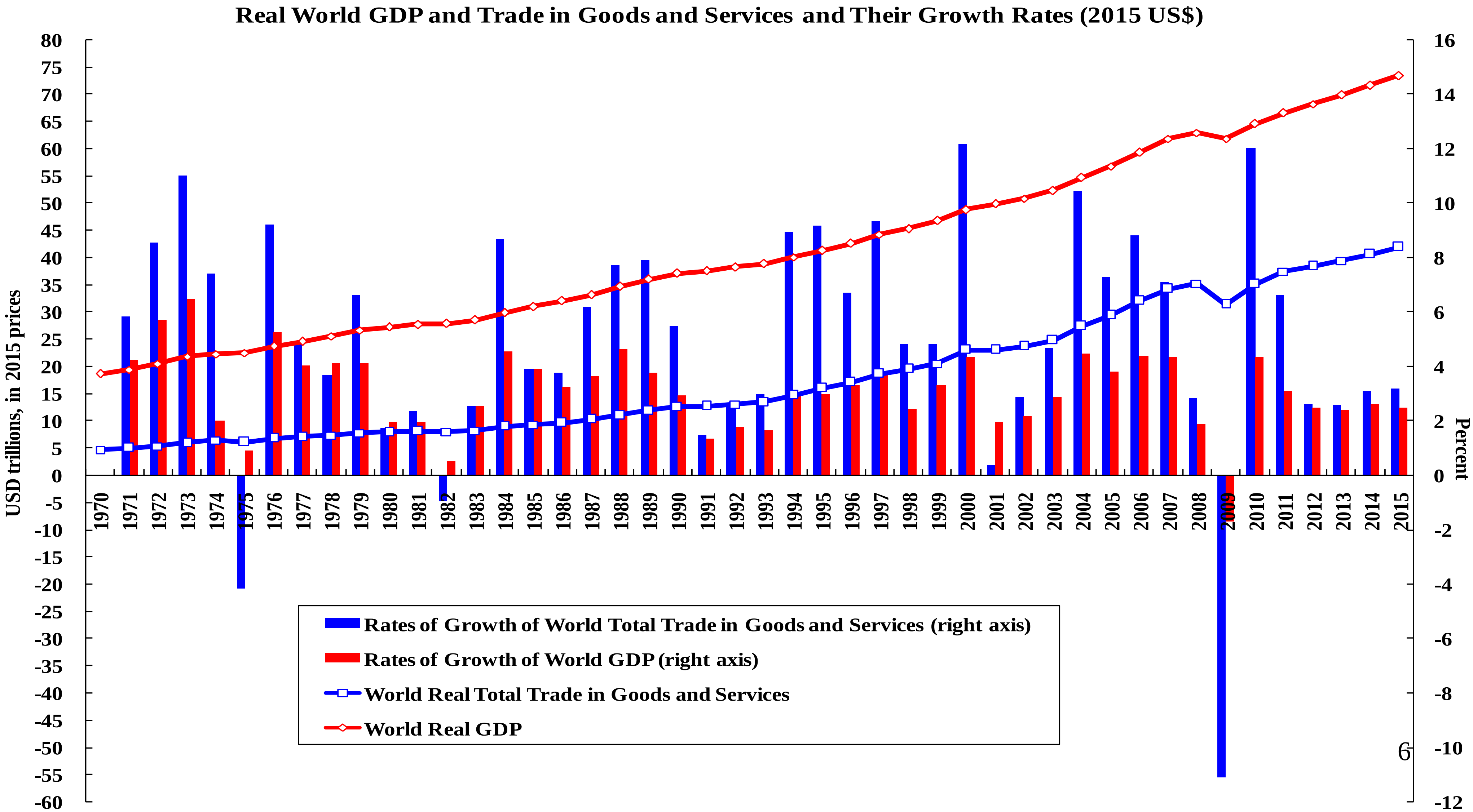
Introduction: Economic Globalization is Now Questioned

- Globalization has brought huge benefits to the entire world economy. Every participating country has had a net gain in the aggregate from economic globalization, albeit to different degrees.
- However, while every participating country has had a net gain, domestic winners as well as losers have been created within every participating country at the same time.
- Economic globalization has begun to be questioned by the common people—the "Brexit" vote, the election of President Donald Trump in the U.S., and the rise of isolationists and protectionists like Marine Le Pen, the defeated candidate for President in France in the final round, and elsewhere in the Netherlands and Germany, are all testimony that many people in these countries consider themselves to be "losers" from economic globalization. (Fortunately, Emmanuel Macron won the French Presidential election held on 7 May.)
- The losers should and must be compensated if globalization were to continue in a sustainable manner. No one should have to lose as a result of globalization--everyone can be made better off, because in principle, the gains should more than offset the losses.
- "Redux" is a word of Latin origin. It means "brought back" and "revived". We shall propose policies and measures that will help to bring back and revive popular support for economic globalization.

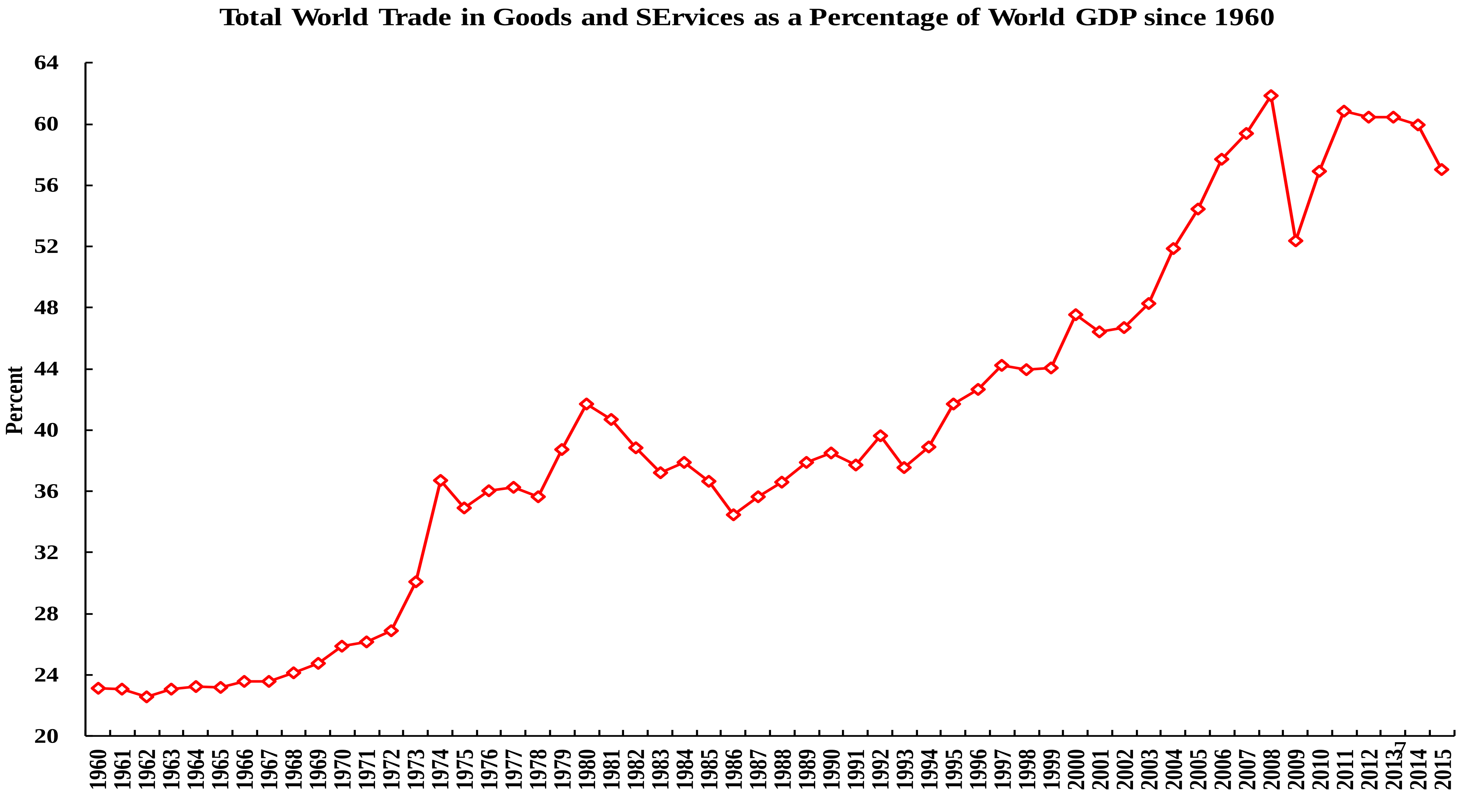
Introduction: The Growth of Total World GDP and Total World Trade

- Both total real world trade and total world foreign direct investment have grown much faster than total world real GDP since 1970.
- Between 1970 and 2008, the beginning of the most recent global financial crisis, total world real GDP grew at an average annual rate of 3.3% while total real world trade grew at an average annual rate of 5.5%. (Since 2008 the average annual rates of growth of real world GDP and real world trade have declined to 2.2% and 2.5% respectively.)
- Total world trade as a percent of total world GDP increased from 26% in 1970 to 62% in 2010. (It has also been gradually declining since 2010.)
- Economic globalization has reached a turning point. Is it likely to be reversed in the future?

Real World GDP and Trade in Goods and Services and Their Growth Rates (2015 prices)



Total World Trade in Goods and Services as a Percentage of World GDP since 1960



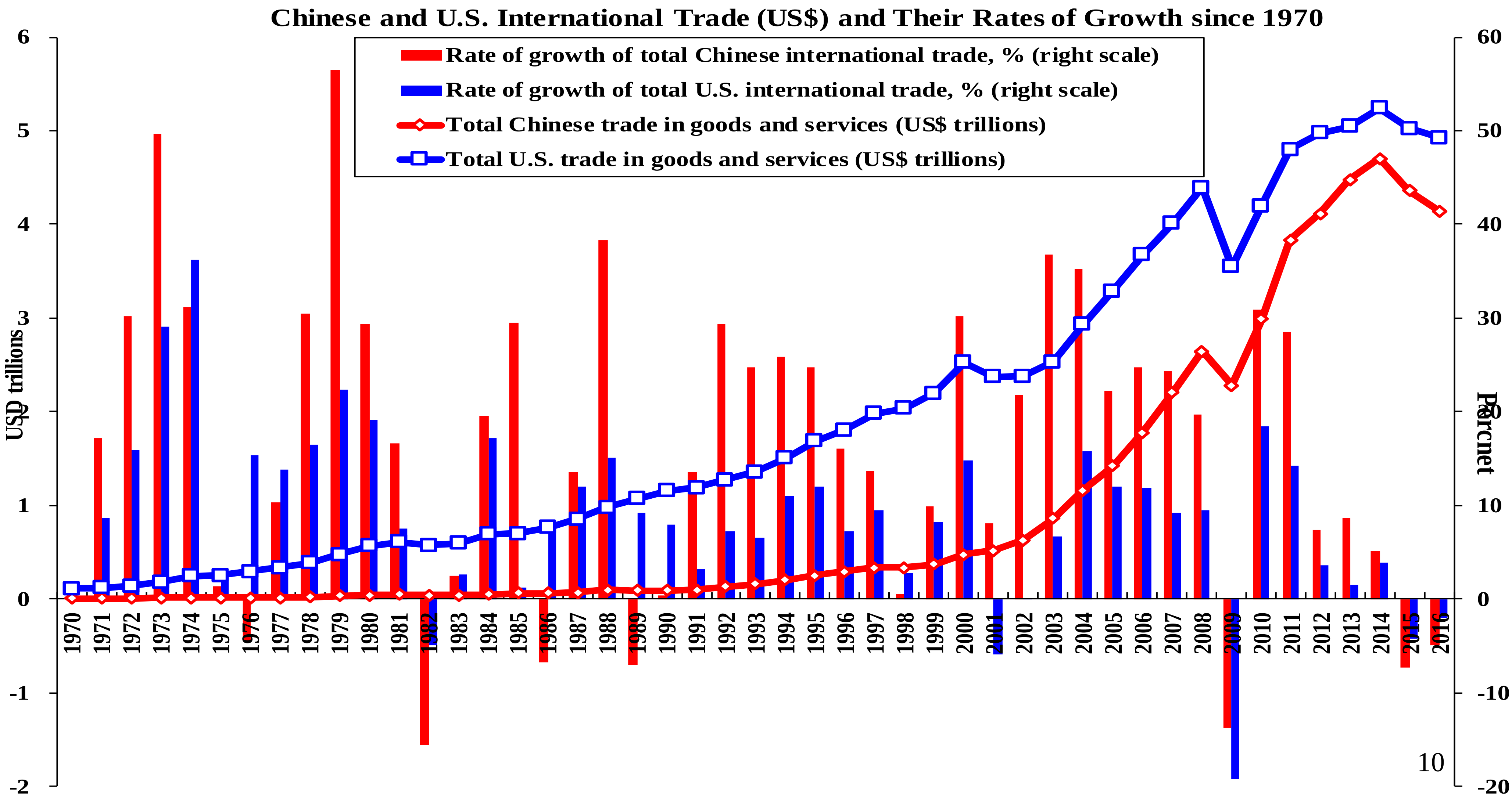
Introduction: The Rapid Growth of Total World Trade is the Combined Result of

- The reduction of tariffs and non-tariff barriers to imports of goods and services through the agreements on the World Trade Organisation (WTO) and various free trade areas (FTAs), the formation of economic communities and economic unions, and the conclusion of free trade and similar agreements. These agreements are sometimes geo-politically motivated—for example, the European Common Market, the policy of trade versus aid.
- The entry of new players (China, India, Russia, Eastern Europe and countries of the former Soviet Union) into the world economy, as both supplier of exports and demander of imports, also increased significantly the value and volume of world trade.
- Fragmentation (or de-verticalization) of production—the finer and finer intra-firm as well as inter-firm division and sub-division of labor around the world, through out-sourcing and specialization by enterprises in niches of core competence, internationalizes supply chains and greatly increases the value and volume of international trade in components, parts, intermediate and semi-finished goods. A product may contain components from different countries and have gone through several of them from start to finish.

Introduction: The Rapid Growth of Total World Trade is the Combined Result of

- The adoption of a common currency, e.g., the Euro.
- The consolidation of dispersed production at a single location, e.g., within the Euro Area, for efficiency and economies of scale reasons (but the need for diversification of supply through dual or multiple sourcing).
- The falling costs of transportation and communication—resulting from the declines in real shipping and telecommunication costs, coupled with the logistics technology revolution, also help to accelerate economic globalization.
- The rising volumes of trade in previously non-tradable services (software-outsourcing, data processing, call centers, back offices); the growth of cross-border trade in services such as tourism, financial services and professional services. Tourism is one of the few <u>non-tradable</u> services left because it is location-specific and cannot be moved away.

Chinese and U.S. International Trade and Their Respective Rates of Growth since 1970



Introduction: The Speed of Economic Globalization

- The high speed of economic globalization is also enabled and facilitated by the information and communication technology revolution:
  - Large reductions in the costs of information transmission and analysis, information storage and retrieval, and communication have greatly reduced the cost of doing international business;
  - Similarly the increased timeliness and reliability of information—information is now available and transmitted accurately in real time—has been most helpful;
  - Inter-firm and intra-firm co-ordination has been greatly facilitated by the reduced costs of communication, monitoring, and control (geographical distance is no longer a barrier), and thereby lowering the explicit and implicit transactions costs of out-sourcing and fragmentation (de-verticalization) of the production process and the formation of global supply chains;
  - Most back-offices and call centers have been relocated to low-cost countries and regions. Any job that can be moved away will be moved away.

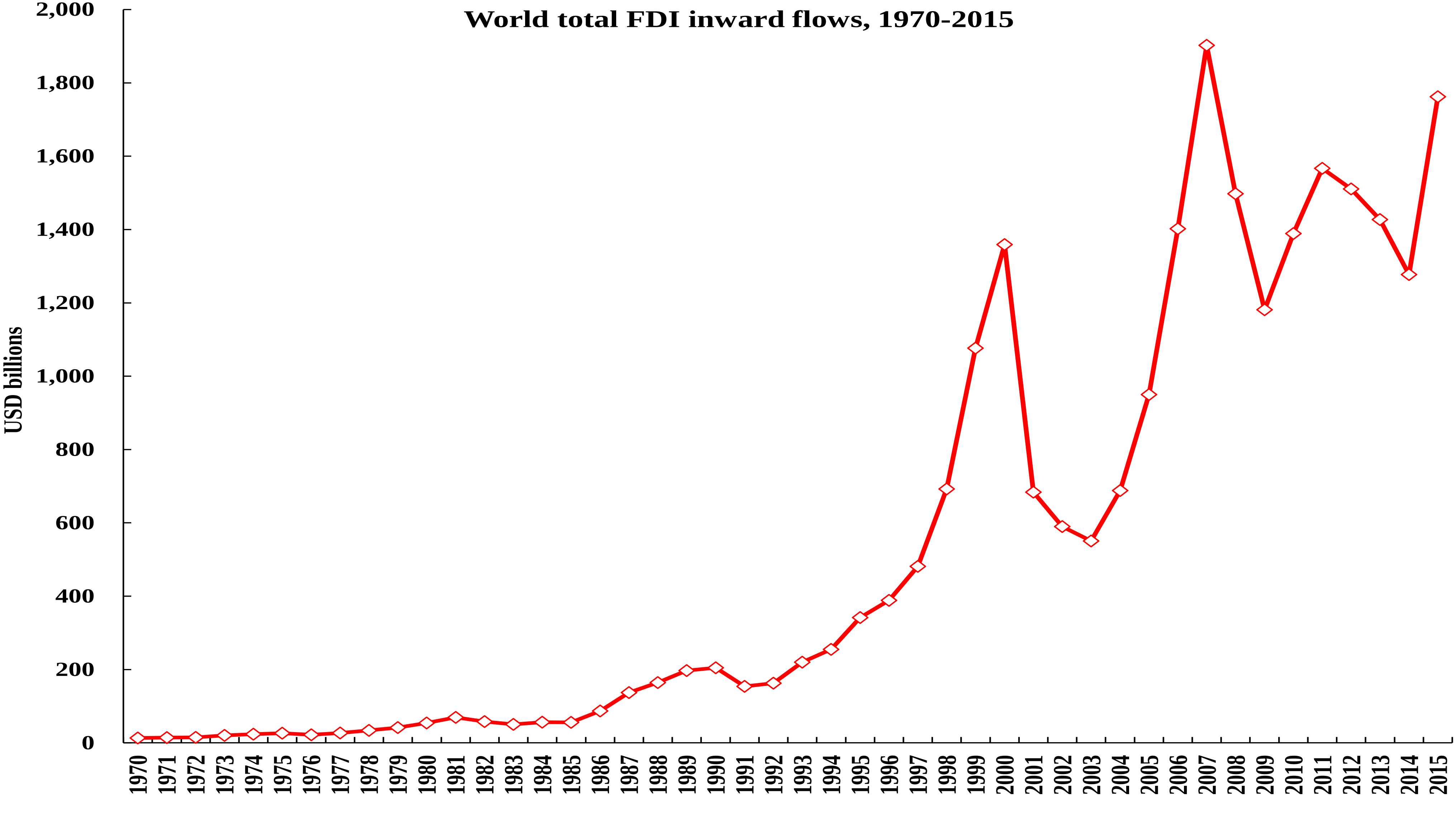
Introduction: The Speed of Economic Globalization

- The worldwide use of English as the language of business communication also facilitates rapid globalization.
- Fragmentation of production is also facilitated by the availability of hedging. What must at one time be internalized in order to reduce risks and uncertainty can now be separated because of the availability of separate risk markets.
- International trade and foreign direct investment permit greater specialization and the exploitation and realization of economies of scale and learning-by-doing, and maximization of returns to intangible capital such as patents and trademarks, by the individual firms.
- And with the growth of the size of the markets, integration as well as segmentation of markets become possible as well as profitable.

Introduction: The Growth of Foreign Direct Investment (FDI)

- Falling barriers to as well as incentives for foreign direct investment (FDI) provided by investee countries have also greatly increased cross-border direct investment. National treatment for foreign direct investment is becoming increasing standard under the World Trade Organisation (WTO) and similar agreements.
- Data from the United Nations Commission for Trade and Development (UNCTAD) show that total world FDI increased at the average annual rate of 14% between 1970 and 2007, the beginning of the global financial crisis. Since 2007 total world FDI has been declining by 1% per year.
- Foreign direct investments (FDI) often follow trade—e.g., to secure long-term supply of raw materials and natural resources; and trade often follows foreign direct investments—e.g., production by captive subsidiaries in foreign markets. A large proportion of world trade consists of intra-industry and intra-firm trade.

Total World Foreign Direct Investment (FDI), US$



Introduction: The Growth of Foreign Direct Investment (FDI)

- FDI permits the leveraging of intangible capital (patents, technology, knowhow, goodwill, brand name, reputation, business methods) over a much larger market. Intangible capital has several characteristics:
  - The creation of intangible capital (e.g., a patented product or process) often requires a high fixed cost, but the expanded application of such intangible capital, once created, has low marginal cost (e.g., Coca-Cola expanding into a new market; introduction of existing drugs into a new market; and the i-phone entering the Chinese market) and hence high marginal revenue and profit.
  - Intangible capital is much more industry-specific than location-specific. It is much easier for an existing firm to enter the same industry in a different geographical market than to enter a different industry in the same geographical market.
  - The protection of the intangible capital in the new market often requires direct supervision, management and control and hence direct investment. Franchising does not work in many economies.

Introduction: The Growth of International Capital Flows

- International capital flows include direct and portfolio investment, foreign aid, foreign loans and short-term capital flows such as “hot money”.
- Total world direct investment has also grown significantly. Annual total world FDI may be estimated at approximately US$1.9 trillion in 2007, prior to the beginning of the global financial crisis.
- The U.S. and Mainland China are the world’s top two leading recipients of foreign direct investment (FDI) with an annual average of approximately US$100 billion currently.

Introduction: The Slowdown in the Growth of World GDP and International Trade

- The growth of world trade led and propelled the growth of world GDP since the 1970s. Japan, the four Newly Industrialized Economies (Hong Kong, Singapore, South Korea and Taiwan), and Mainland China all adopted export-led economic growth policies in the early stages of their economic development.
- However, since the global financial crisis that began with the U.S. sub-prime loan crisis in 2007, the growth of real world trade has slowed significantly to approximately the same rate of growth of world real GDP. (For the decline in value of world trade in nominal terms, the recent fall in the world price of oil is an important factor.)
- At the same time, the growth of world GDP has also slowed down from its historical trend rate in the past few years. Recently the International Monetary Fund projected that world real GDP would grow at 3.5% in 2017 and 3.6% in 2018.

Introduction: The Slowdown in the Growth of World GDP and International Trade

- The IMF forecast of U.S. economic growth for 2017 is 2.3%. Growth forecasts for Europe and Japan have remained at between 1% and 2%. The outlook for the developing economies is slightly better, with China projected to grow at 6.5% (6.6% by the IMF) and India to grow at 7% or higher.
- The ratio of world trade to world GDP has stalled since 2007 and has begun a gradual decline. The IMF forecast the growth of world trade in 2017 to be 4%, slightly higher than the projected rate of growth of world GDP.
- For both the U.S. and China, the two largest trading economies in the world, total value of trade has fallen in both 2015 and 2016.

The Effects of Economic Globalization

- Economic globalization has resulted in the center of gravity of the world economy shifting to East Asia from North America and Europe.
- Economic globalization has also partially de-coupled the East Asian economies from the U.S. and Western European economics, meaning that they can continue to grow even as the U.S. and Western European economies go into recession, albeit at slower rates.
- Economic globalization has led to massive short-term cross-border capital flows seeking higher yields.
- Economic globalization has also enhanced the rate of return to investment in intangible capital by enlarging the potential markets.
- Economic globalization has also led to the partial integration of the factor markets in the world, especially the capital markets and the markets for professional and technical personnel.

The Effects of Globalization: The Shift of the Center of Gravity of the World Economy

- The most important development in the global economy during the past four decades is the reform and opening of the Chinese economy and its participation in the world.
- As a result, the center of gravity of the global economy, in terms of both GDP and international trade, has been gradually shifting from North America and Western Europe to East Asia, and within East Asia from Japan to China.
- The shift is still on-going. With both China and India being currently the fastest-growing economies in the world, the share of the U.S. and Europe in world GDP will continue to decline over time.

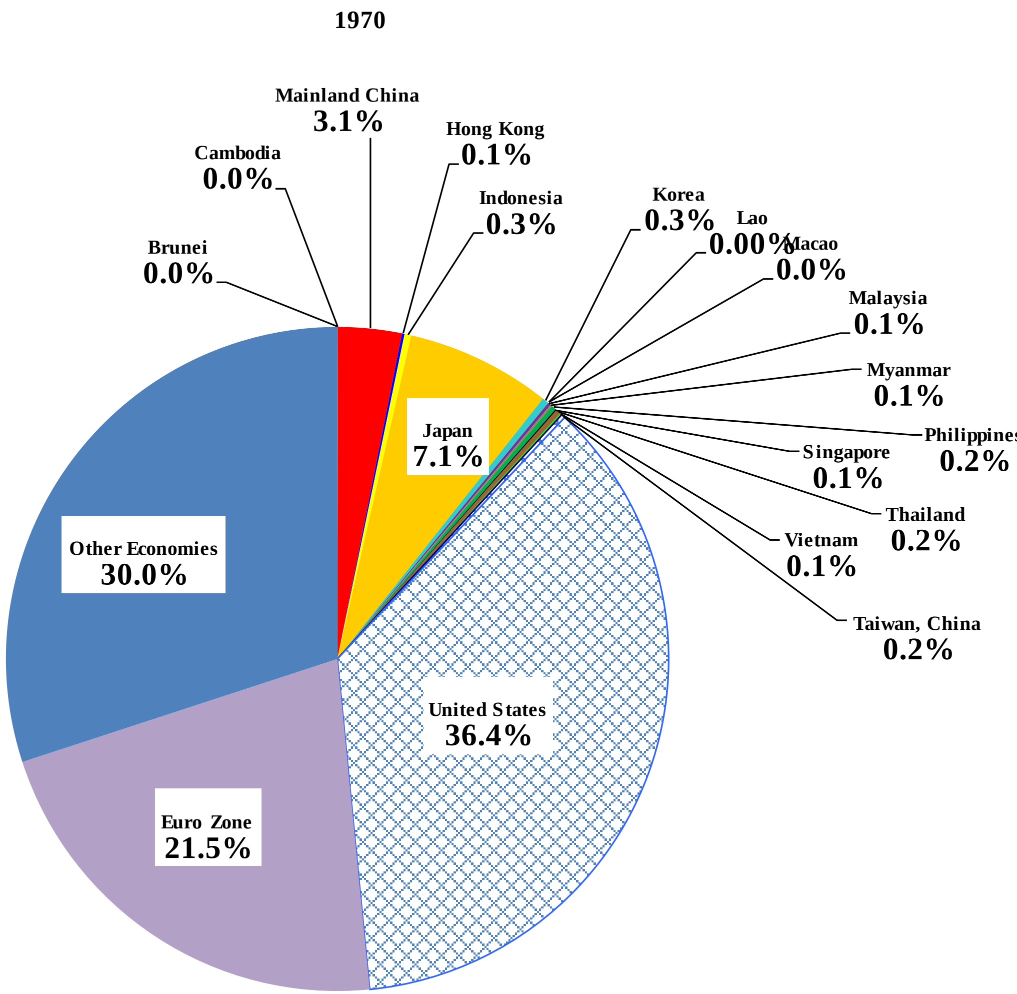
The Effects of Globalization: The Shift of the Center of Gravity of the World Economy

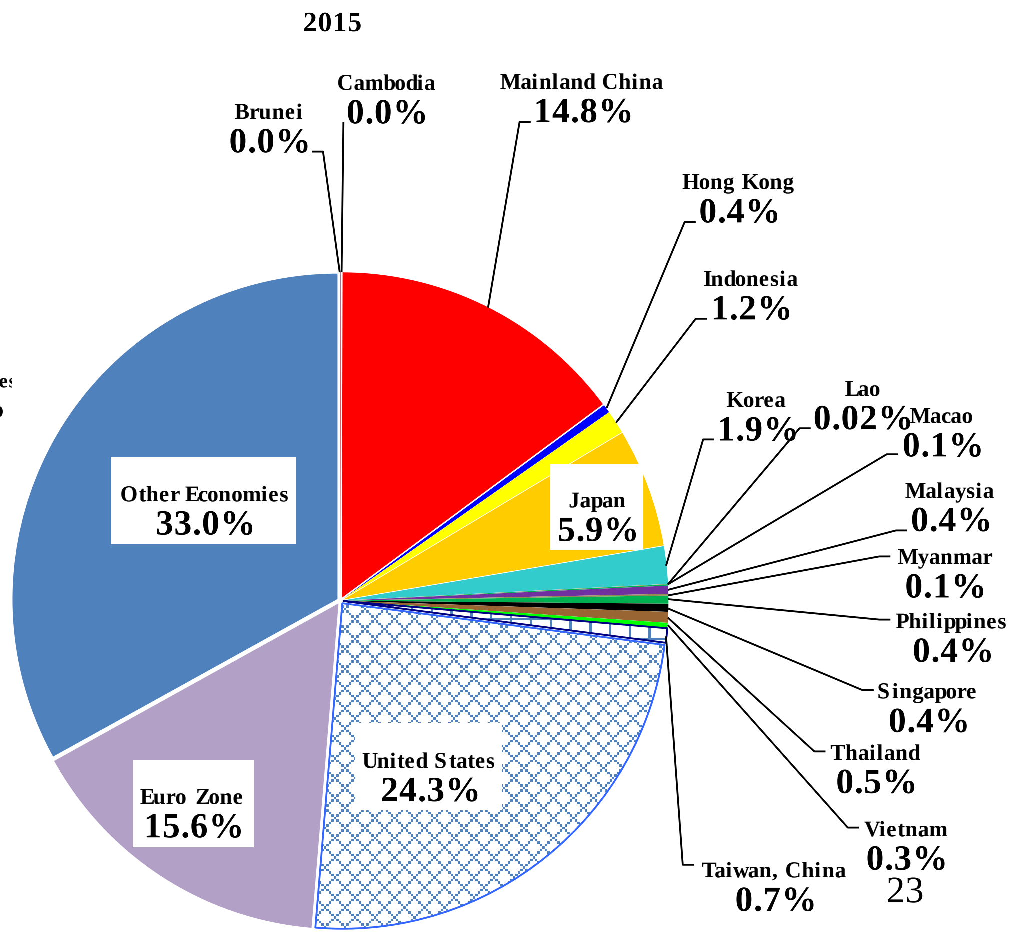
- In 1970, the United States and Western Europe together accounted for almost 60% of world GDP. By comparison, East Asia (defined as the 10 Association of Southeast Asian Nations (ASEAN)--Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam--+ 3 (China including Hong Kong Macau and Taiwan, Japan and the Republic of Korea)) accounted for only approximately 10% of world GDP.
- Hong Kong, Republic of Korea, Singapore and Taiwan are also known collectively as the East Asian "Newly Industrialised Economies (NIEs)".

The Effects of Globalization: The Shift of the Center of Gravity of the World Economy

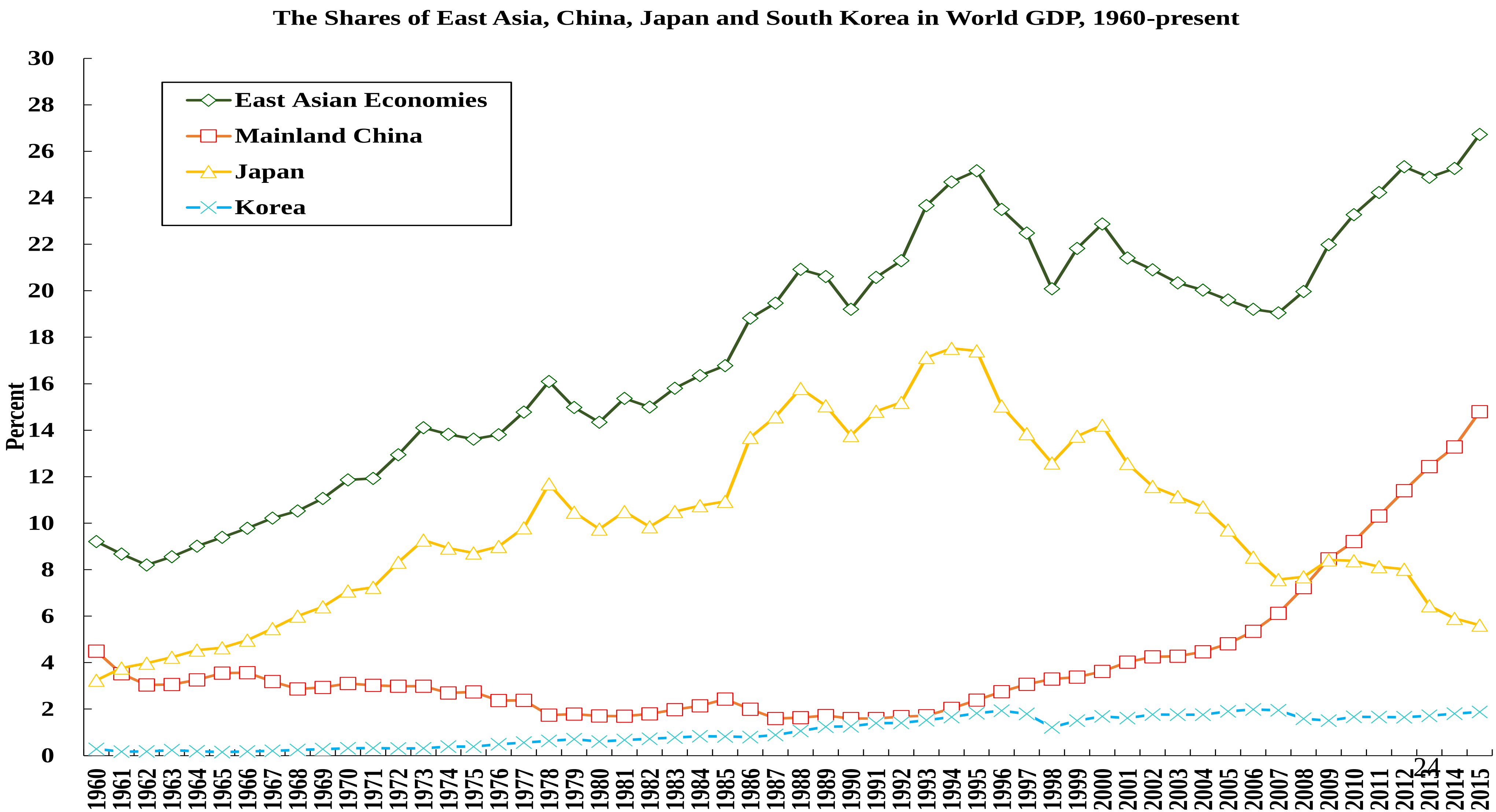
- By 2015, the share of United States and Western Europe in world GDP has declined to approximately 40% whereas the share of East Asia has risen to around 27%.
- The Japanese share of world GDP declined from a peak of almost 18% in the mid-1990s to 5.9% in 2015 while the Mainland Chinese share of world GDP rose from 3.1% in 1970 and less than 4% in 2000 to over 14.8% in 2015.

The Distribution of World GDP, 1970 and 2015, US$

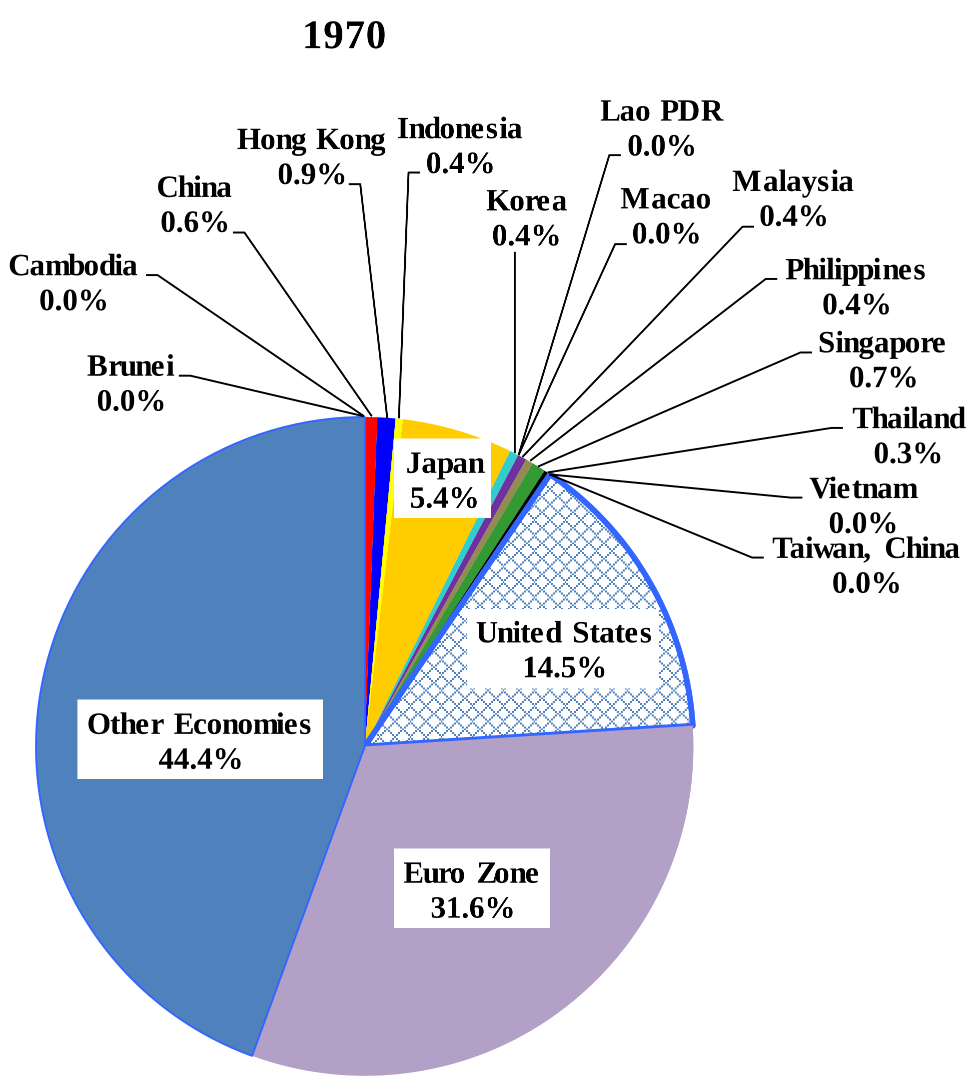


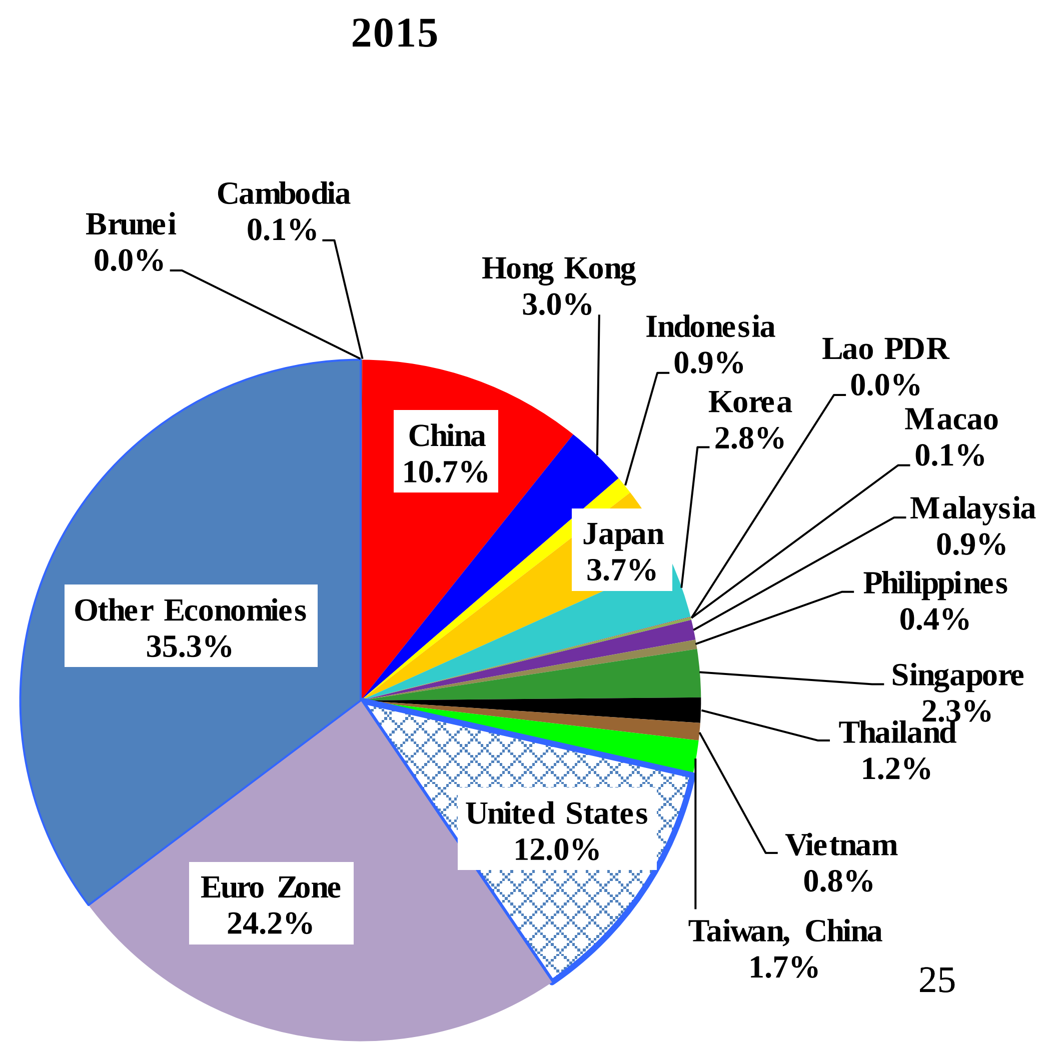


The Shares of East Asia, China, Japan and South Korea in World GDP, 1960-present



The Distribution of International Trade in Goods and Services, 1970 and 2015





The Effects of Globalization: The Shift of the Center of Gravity of the World Economy

- In 1970, the United States and Western Europe together accounted for almost 46% of world trade in goods and services. By comparison, East Asia accounted for 9.5% of world trade.
- By 2015, the share of United States and Western Europe in world trade has declined to 36.2% whereas the share of East Asia has risen to almost 28.6%.
- The Mainland Chinese share of world trade rose from 0.6% in 1970 to 10.7% in 2015. The growth in Chinese international trade may be attributed in part to adoption of current-account convertibility of the Renminbi by China in the early 1990s, accompanied by a significant devaluation of the Renminbi, and to Chinese accession to the World Trade Organisation in 2001.
- In 2015, Mainland China has also become the largest trading-partner country of the U.S., surpassing Canada.

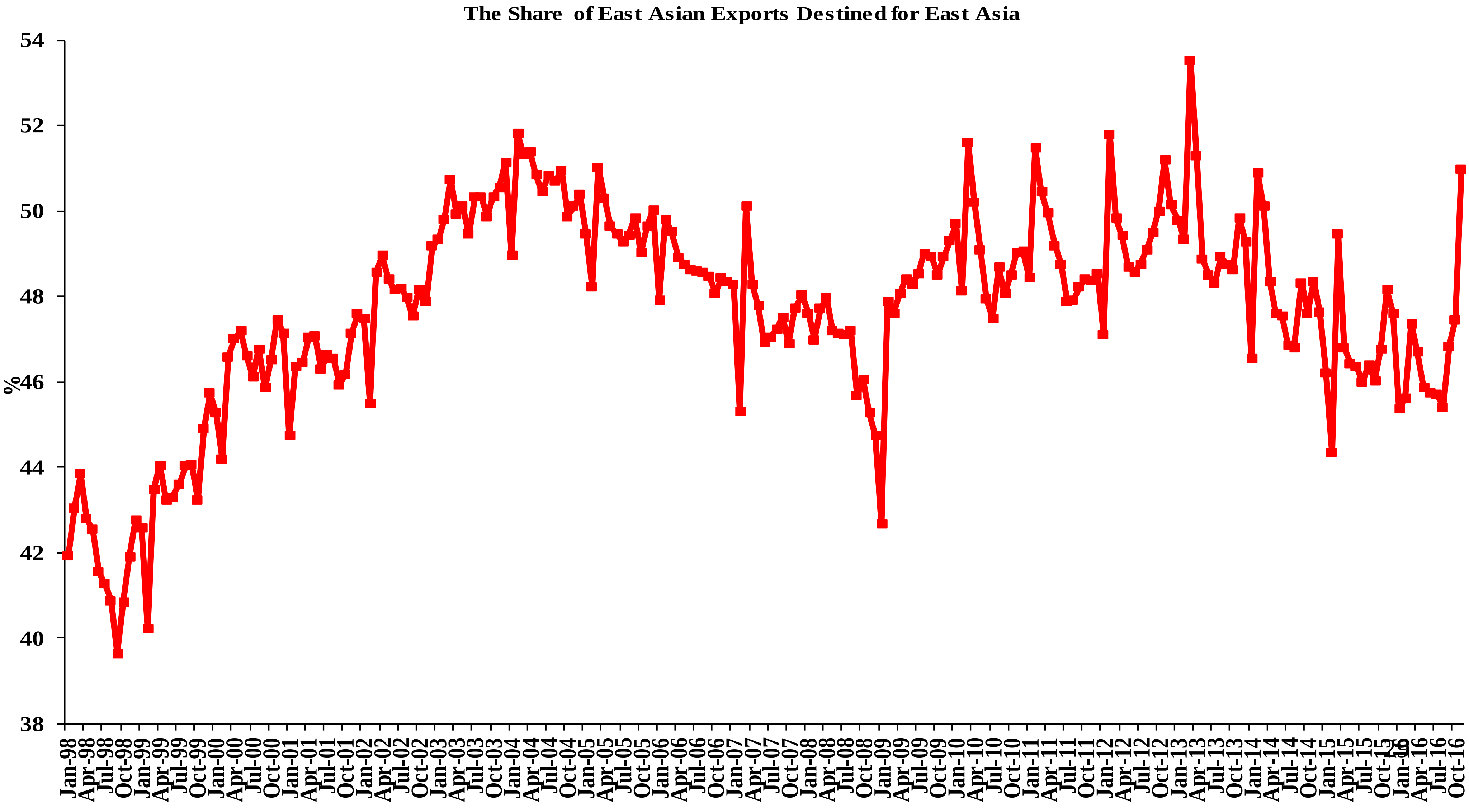
The Effects of Globalization: The Partial De-Coupling of E. Asia from America & Europe

- Throughout the 2007-2009 global financial crisis, as well as the subsequent European sovereign debt crisis, the East Asian economies continued to do reasonably well. Mainland China, in particular, has been able to maintain its real rate of growth above 6.5% since 2007, lending credence to the "Partial De-Coupling Hypothesis", that is, the East Asian economies can continue to grow, albeit at lower rates, even as the U.S. and European economies go into economic recession.
- This partial de-coupling can occur because of the gradual shift of the economic center of gravity of the world from the United States and Western Europe to Asia (including both East Asia and South Asia) over the past four decades.

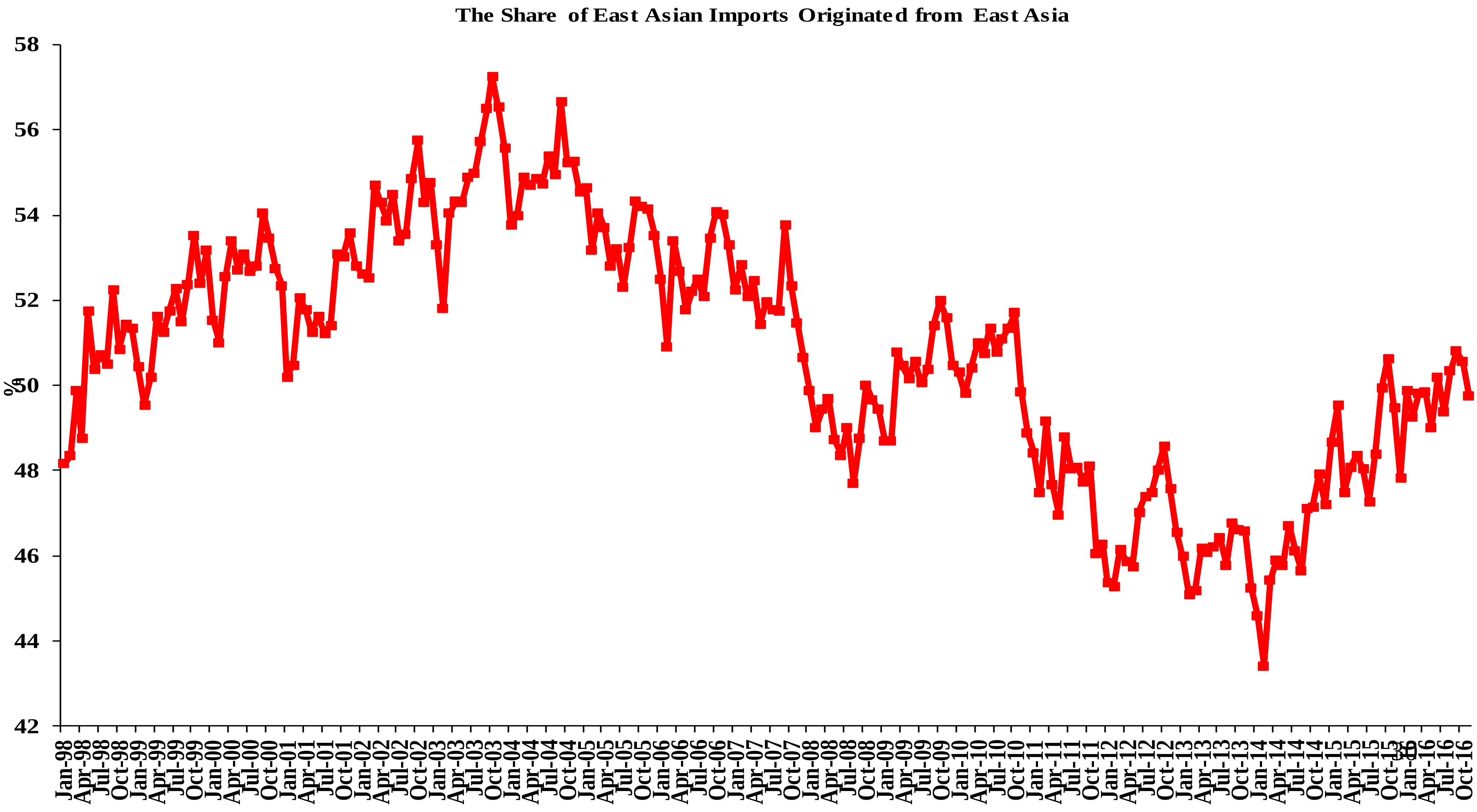
The Effects of Globalization: The Partial De-Coupling of E. Asia from America & Europe

- A particularly interesting development is the rise in intra-East Asian international trade. The share of East Asian exports destined for East Asia accounts for 50 percent of total East Asian exports at the present time. This is a sea-change compared to 30 years ago when most of the East Asian exports were destined for either the United States or Western Europe.
- Similarly, the share of East Asian imports originated from East Asia has also stayed around 50 percent.

The Share of East Asian Exports Destined for East Asia



The Share of East Asian Imports Originated from East Asia



The Integration of Factor Markets

- The world capital markets have also begun to integrate, with large short-term capital flows looking for higher yields around the world. This is especially true since the global financial crisis of 2008 and the beginning of the quantitative easing policies of the U.S. Federal Reserve Board, the Bank of Japan and the European Central Bank.
- The world labor markets have also become more integrated, especially for professional and technical personnel (skilled labor).
- However, jobs for unskilled labor continue to move to lower-wage economies, except for tourism-related jobs. Any job that can be moved away will be moved way.

The Benefits of Economic Globalization

- The creation of winners on a global basis—voluntary international trade is always win-win for both trading-partner countries.
- The more efficient allocation of capital--Investors everywhere are moving their capital around the world to seek the highest rates of return.
- The enlargement of markets--The entire world is the potential market and the entire world population have become potential customers.
- The huge potential of both technological and market economies of scale can be realized through expansions, mergers, acquisitions, consolidations, and formation of strategic alliances and partnerships.
- Economic globalization enhances the returns to intangible capital.

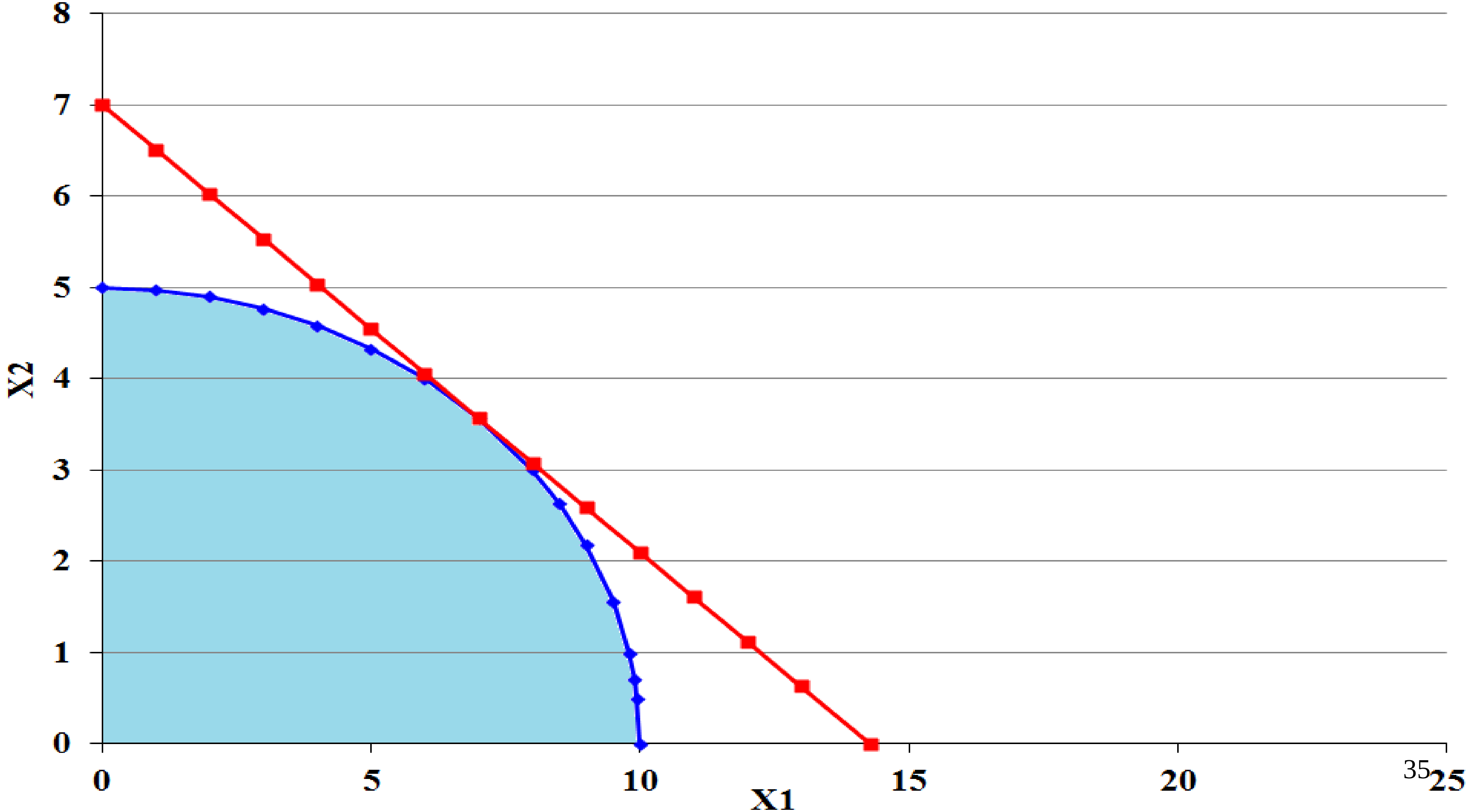
The Benefits of Economic Globalization

- The transfer of technology and knowledge across borders.
- The widespread exchange of people through tourism and education abroad.
- The mobility of capital has reduced the necessity for cross-country migration—bringing capital to labor rather than labor to capital.
- The U.S. as the leading provider of the global medium of exchange reaps significant benefits from the seigneurage.
- The possibility of global cooperation and coordination is enhanced (e.g., on the prevention of global warming).

The Benefits of Economic Globalization: International Trade

- Economic theory tells us that whenever a new economy joins the world economy, aggregate economic welfare of the world should increase. Moreover, the aggregate economic welfare of each country that participates in the world economy should also increase.
- The basic idea is a simple one: With voluntary international trade, if there is no gain for any of the trading partner countries, no trade will take place. In any such trade, both partner countries must gain. And the gains are sufficient to compensate the potential losers within each trading partner country.
- When a previously autarkic economy begins to participate in the world, international trade can only increase, and not decrease.
- However, the introduction of new international trade transactions will necessitate domestic adjustments in each of the trading partner countries, as some domestic industries will expand while other domestic industries will contract.

The Sets of Consumption Possibilities under Autarky and with International Trade



The Set of Consumption Possibilities under Autarky

- The set of production possibilities of an economy is the set of all possible combinations of goods (and services) that it can produce. In the chart we show the set of production possibilities of an economy with two goods, X1 and X2, shaded in blue.
- The solid blue line is the frontier of the set of production possibilities. An efficient economy always operates on the frontier of its set of production possibilities. We note that in order to produce more of X1, the economy will have to produce less of X2 and vice versa. Moreover, the more X1 that the economy has already been producing, the more X2 it has to give up on the margin in order to produce even more of X1. (This is the convexity assumption.)
- In the absence of international trade, the set of consumption possibilities of an economy is precisely the same as its set of production possibilities. It can only consume what it can produce.

The Expansion of the Sets of Consumption Possibilities with International Trade

- With international trade, the set of consumption possibilities can be expanded even with the set of production possibilities remaining the same.
- The red straight line represents the international price line. Its slope is the ratio at which a unit of X2 can be exchanged for a unit of X1 in the world market. It is drawn at its point of tangency to the set of production possibilities. (It is assumed that the economy is small, so that it is a price-taker in the world market, and thus the price line is a straight line.)
- With international trade, the set of consumption possibilities becomes the triangle bounded by the red line and the two axes.
- To see this, suppose the economy operates at the point of tangency of the set of production possibilities and the international price line, then by trading X1 and X2 internationally, it can achieve every other point on the red line, which are not attainable in the absence of international trade.
- Clearly the set of consumption possibilities with international trade is significantly expanded—it now properly contains the set of consumption possibilities under autarky. Thus, the economy must be better off because not only does it have all the previously available consumption possibilities to choose from but it also has choices previously unavailable to it.

The Benefits of International Trade

- Thus, voluntary trade between two countries is always beneficial to both--it is always win-win for both countries. (However, the distribution of the gains from trade between the two trading- partner countries is in general indeterminate and depends on a variety of factors including the relative bargaining power of the trading-partner countries.)
- If one country is more efficient in the production one good (in terms of requiring less resources per unit of output) and the other country is more efficient in the production of the other good, then it seems obvious that specialization with trade can then make both countries better off.
- But even if one country is more efficient than another country in the production of every good, both countries can still gain from trading with each other. This is the core concept of the theory of comparative advantage.

The Benefits of Economic Globalization: Integration of Labor Markets

- The labor force has become increasingly mobile. Foreign labor is very common in many countries and regions, e.g., Taiwan, Hong Kong, Germany and the Middle East. And human capital in the form of skilled labor and professionals has also become very mobile. There is now a world market in professional and technical personnel such as accountants, engineers, scientists, managers and professors.

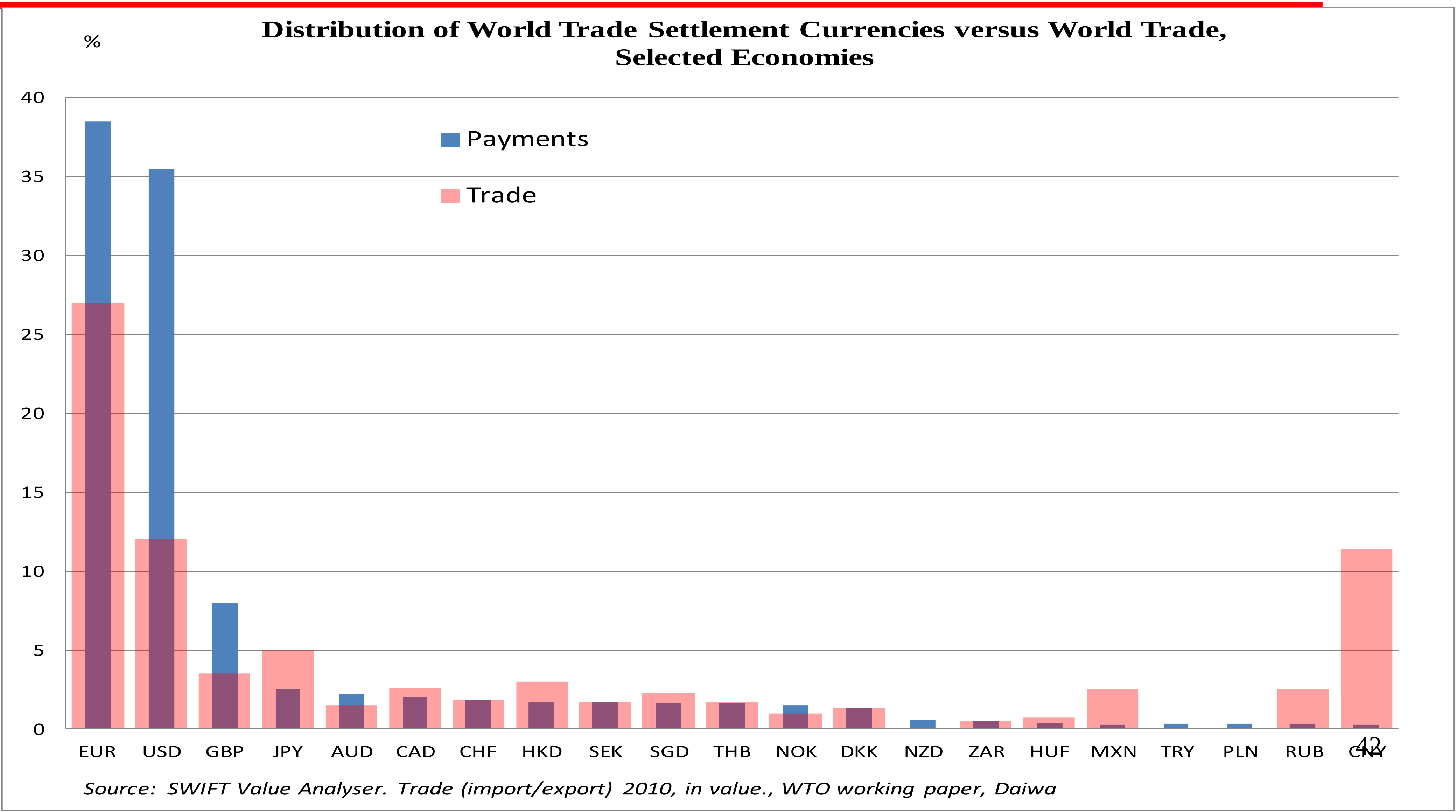
The Creation of Domestic Winners (and Losers)

- The benefits to an economy from international trade can occur in two principal ways. First, its exporters can produce more goods and export them, and thereby create more GDP, profits and employment for the economy. Second, its importers also benefit as the demands for imports augment their revenues and profits as well as generate additional employment; and its consumers can enjoy more, cheaper imported consumer goods and services of greater variety, and its producers can enjoy more and cheaper imported inputs, including equipment, energy, material and service inputs.
- However, even though for the economy as a whole, there is always a positive net benefit, imports can potentially disrupt domestic industries through its competition with domestically produced goods, changing the relative prices between different goods in the economy, and displacing workers employed in these domestic industries. Losers will be created in the economy unless appropriate compensation and redistribution policies are adopted by the government. The market on its own cannot compensate the losers from international trade.

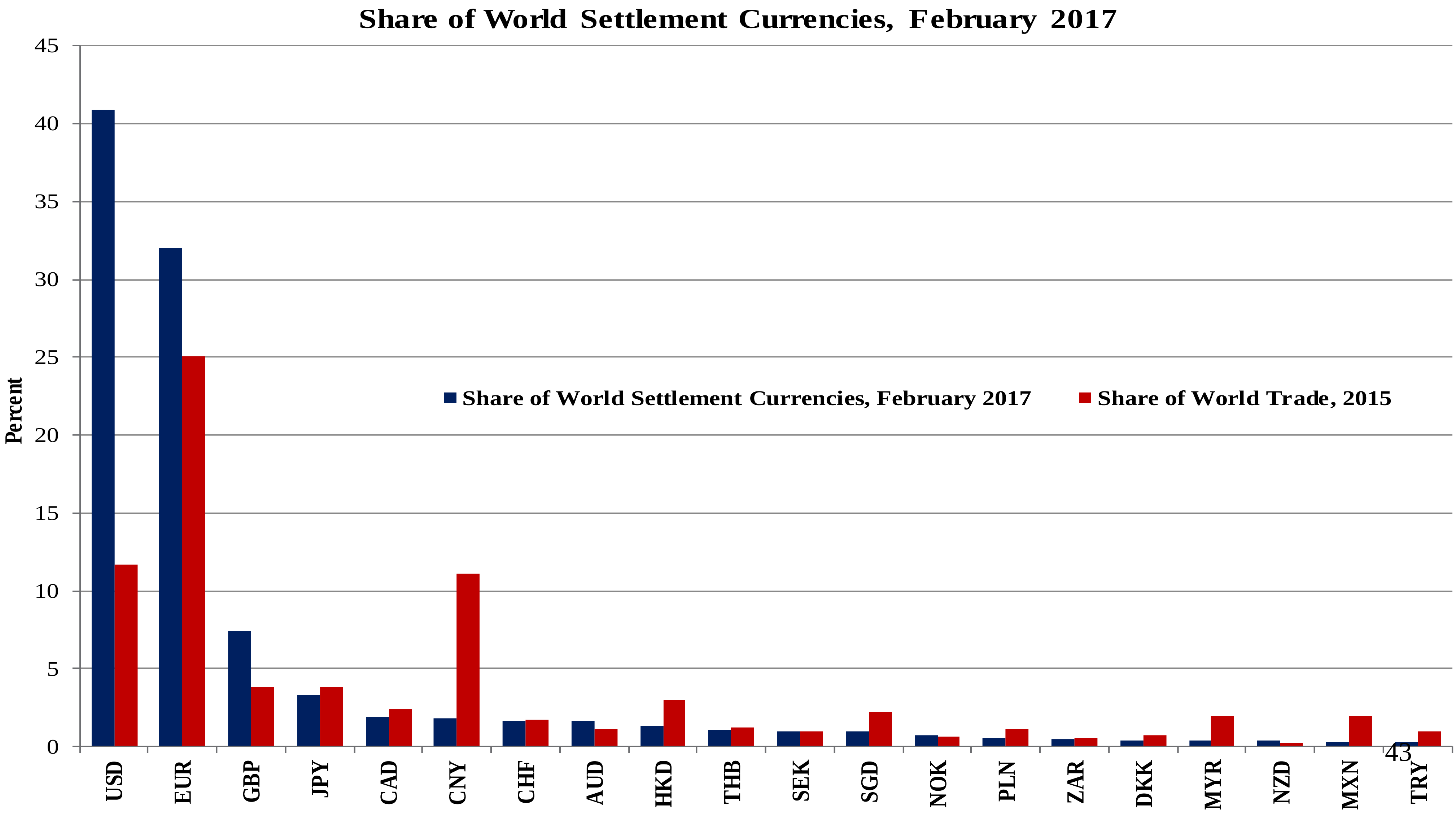
The Benefits of Globalization: Seigneurage for Providing the Global Medium of Exchange

- The provider of international "money"—the international medium of exchange—will reap the benefits of seigneurage in the same way that a domestic government will reap seigneurage from supplying the domestic money.
- The U.S. is the leading, if not the sole, provider of an international medium of exchange—the U.S. Dollar—that is acceptable to all, or almost all, countries and regions. Without an international medium of exchange, many international trade transactions may not take place, as many countries do not trust the currencies of one another.

Distribution of World Trade Settlement Currencies versus World Trade, 2010



Distribution of World Trade Settlement Currencies versus World Trade, Feb 2017



The Benefits of Globalization: Seigneurage for Providing the Global Medium of Exchange

- The U.S. Dollar now accounts for more than 40 percent of the world payments even though the U.S. itself accounts for only slightly more than 10 percent of world trade, followed by the Euro, which accounts for 30 percent of world payments, while the Euro Area accounts for 25 percent of world trade.
- The benefit to the U.S. as the provider of international "money" is that it can pay for its imports by simply printing U.S. Dollars or U.S. bonds and can therefore run a persistent trade deficit (US$500 billion in 2016; cumulatively US$10 trillion since 1980). The current value of the seigneurage may be estimated at approximately US$300 billion a year based on the assumption of a 3% spread between short-term U.S. Treasury securities and the rate of return earned by U.S. assets abroad.

The Costs of Economic Globalization

- The Creation of Domestic Losers
- The Intensification of Global Competition
- Factor-Price Equalization
- Increased Domestic Income Inequality
- The Potential of Monopolization
- Increased Vulnerability to External Economic Disturbances
- The Risks of Short-Term Cross-Border Capital Flows

The Costs of Economic Globalization: The Creation of Domestic Losers

- However, even though the economy of every trading country is better off as a whole with than without international trade, winners and losers will be created in the economy as a result of trade. The losers will not be automatically compensated by the winners through the markets. Government intervention is necessary to make sure that there are no net losers.
- The social costs of disruptions of industries and job displacements can be high.
- They can lead to the rise of protectionism and isolationism as a reaction to the costs of globalization if not appropriately mitigated.
- However, there should be sufficient gain in the economy as a whole for all the losers to be potentially compensated by the winners.

The Costs of Economic Globalization: The Intensification of Global Competition

- There will be intensification of competition in the world markets from both domestic and foreign firms for goods (including natural resources), services, and factors (capital and human resources).
- There will be increased uncertainty and unpredictability (footlooseness of suppliers, customers and investors and the possibility of external shocks).
- Comparative advantages are dynamic. The entry of a new player may cause major re-alignment of comparative advantages. For example, a lower-cost producer of shoes may emerge, forcing the existing producers to cut costs or to relocate. Adjustments, for example, cost-cutting, relocation, entry into a new industry, etc., will be necessary.

The Costs of Economic Globalization: Factor-Price Equalization

- The “Factor-Price Equalization Theorem” of the late Prof. Paul A. Samuelson (Nobel Laureate in Economic Sciences) states that the prices of identical factors of production, such as the wage rate of unskilled labor, or the user cost of capital, will be equalized across countries as a result of international trade in goods.
- The theorem suggests that the wage rate of unskilled labor will fall to the lowest level in the world under free international trade (in the absence of transport costs). This has actually occurred in many economies, including the U.S., Taiwan and Hong Kong. Any job that can be moved away will be moved away.
- Samuelson, P. A. (1948). "International Trade and the Equalisation of Factor Prices", Economic Journal, June, pp. 163-184.

The Costs of Economic Globalization: Increased Domestic Income Inequality

- Since the wage rate of unskilled labor declines and the wage rate of skilled labor rises (in the expanding export industries), the domestic income inequality can be expected to increase, absent any government intervention.
- This can lead to political polarization if not properly mitigated.
- However, the increase in domestic income inequality can be accompanied simultaneously by increased international income equality, that is, increased equality among countries. In fact, this is also what has happened in the world.

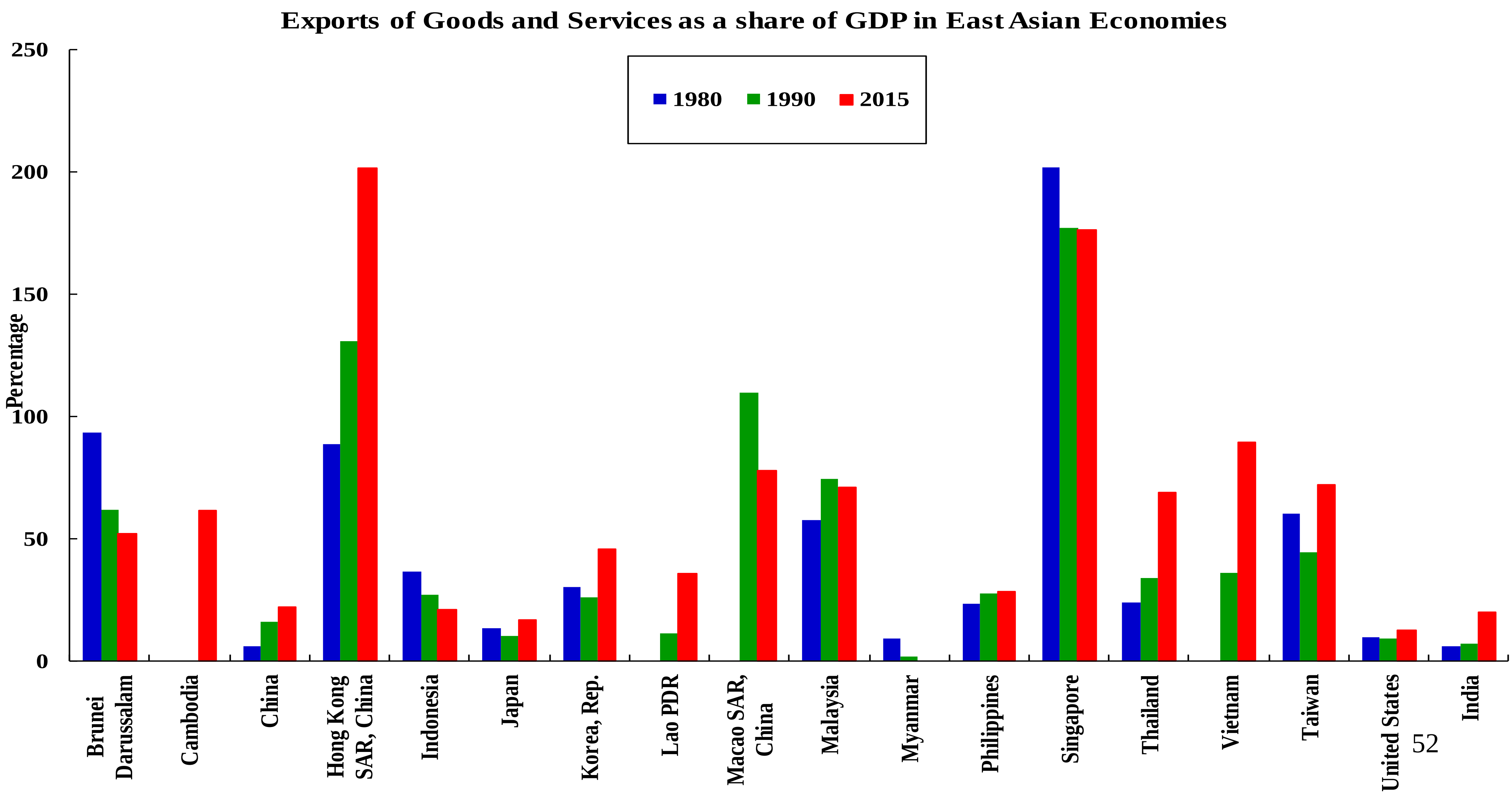
The Costs of Economic Globalization: The Potential of Monopolization

- Monopolization and cartelization are the natural outcomes of a completely free and unregulated (global) market economy. They tend to result in higher prices and poorer qualities for goods and services and less innovation.)
- Economies of scale (the network effect) and globalization together also enable the rise of global monopolies or quasi-monopolies such as Alphabet (Google), Apple and Microsoft.
- It is fair to say that without the IBM consent degree in the U.S. there might not have been a Microsoft, and that without the legal restrictions on Microsoft there might not have been an Apple or a Google.
- Governments around the world must remain vigilant on anti-competitive behavior of the part of large firms.

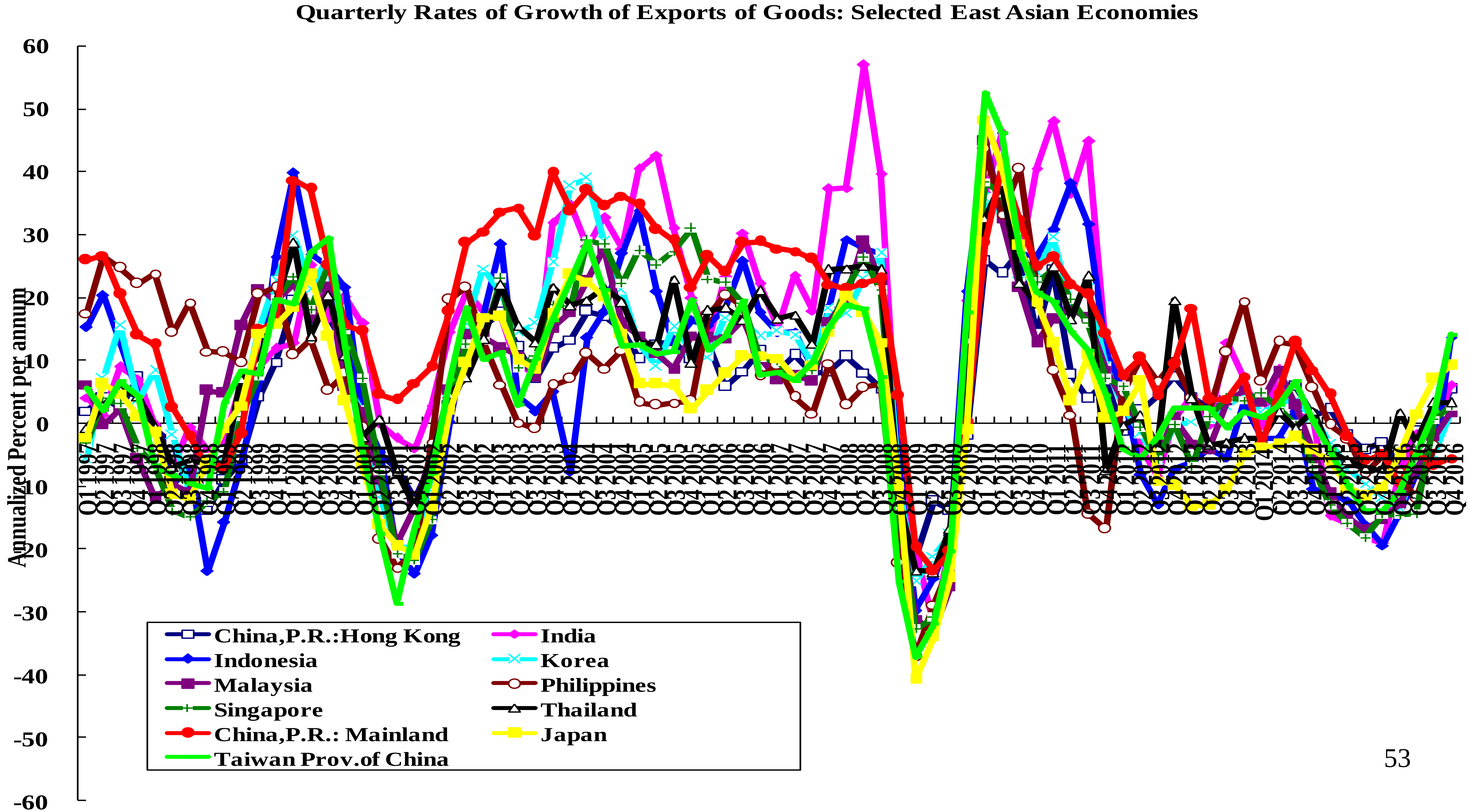
The Costs of Economic Globalization: Increased Vulnerability to Ext. Disturbances

- Increased globalization of the markets for goods, services and factors (capital and labor) also implies that the world economies will tend to move up and down more or less simultaneously. There is therefore increasing synchronization of business cycles, resulting in higher correlation of real rates of growth, rates of interest, rates of inflation, and rates of increase in the prices of assets among economies.
- It is no longer possible for small economies to rely solely on diversification to reduce the impact of external disturbances and shocks. Large economies, which are not so dependent on exports, are more immune from external economic disturbances (for example, the U.S., China, Japan and India).
- However, it also implies that economic recovery is also likely to be more simultaneous, and hence more rapid and robust, with the aggregate demands of each of the economies feeding into one another (as was experienced during the 1997-1998 East Asian currency crisis).
- There is, however, also evidence of partial de-coupling of East Asian economies from the rest of the world.

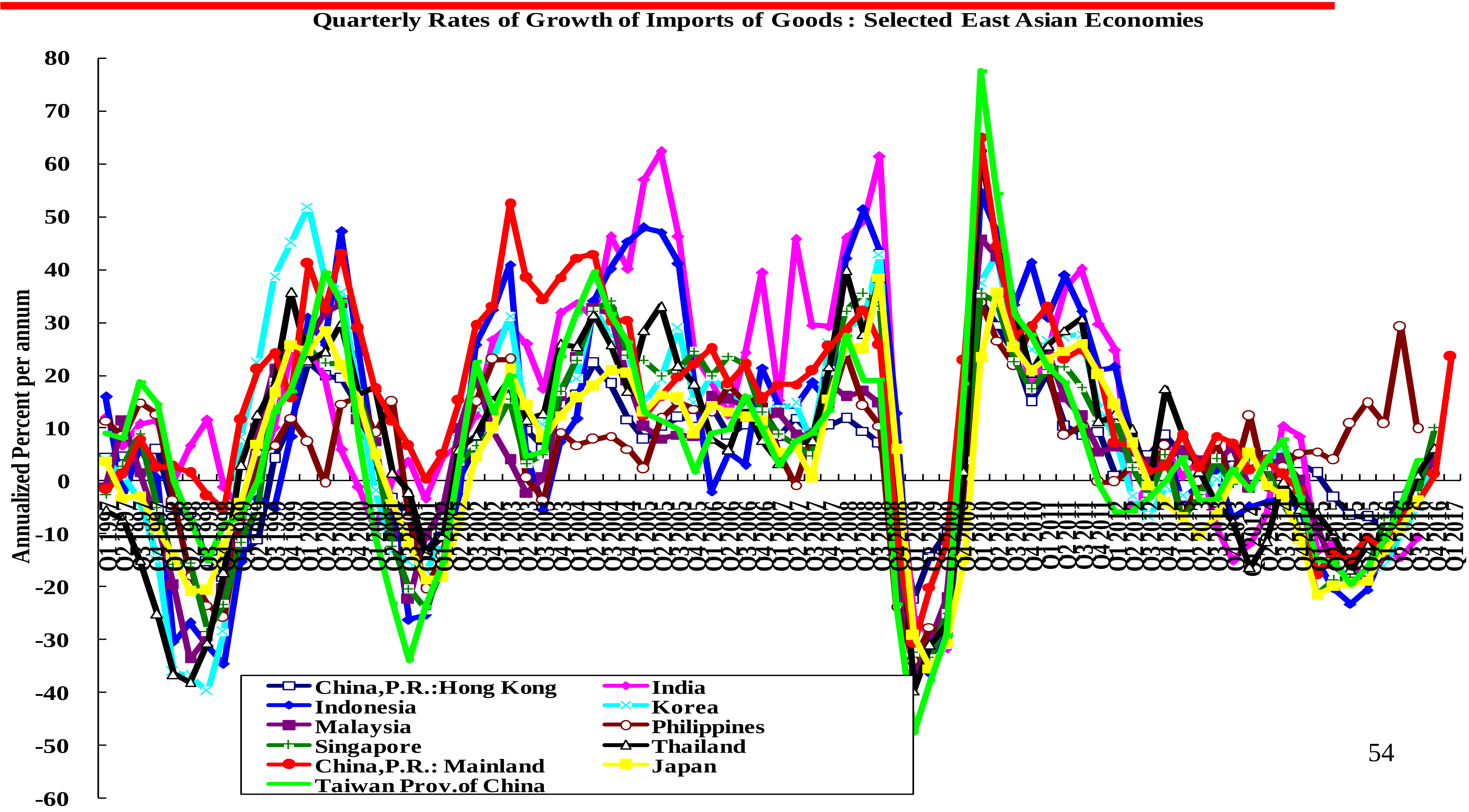
Exports of Goods and Services as a Share of GDP in East Asian Economies, India & U.S.



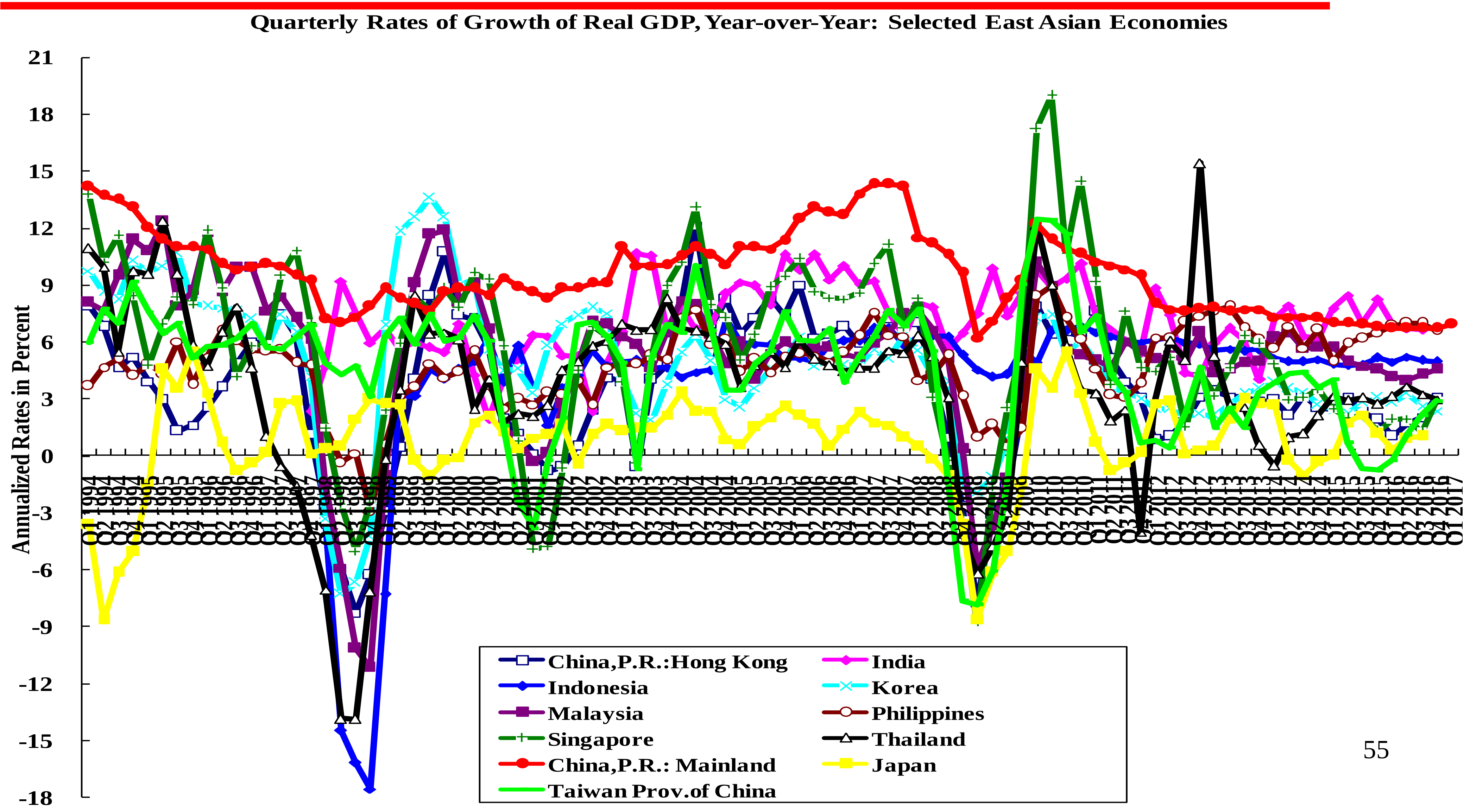
Quarterly Rates of Growth of Exports of Goods: Selected Asian Economies



Quarterly Rates of Growth of Imports of Goods: Selected Asian Economies



Quarterly Rates of Growth of Real GDP, Y-o-Y: Selected Asian Economies



The Costs of Economic Globalization: The Risks of Short-Term Capital Flows

- While economic theory tells us that voluntary international trade benefits both trading-partner countries and voluntary foreign direct investment benefits both the investor- and the investee-countries, there is no theory which says that short-term capital flows are necessarily good for either the origin or the destination country.
- Exporters, importers and long-term cross-country direct and portfolio investors all prefer relative stability of the exchange rate. Short-term capital flows can cause significant volatility of the exchange rate and asset price bubbles and disrupt international trade.
- Moreover, when short-term foreign capital is utilized in an economy, it invariably leads to problems down the road because of maturity mis-match and currency mis-match.

The Costs of Economic Globalization: The Risks of Short-Term Capital Flows

- Foreign exchange transactions nowadays total approximately US$5 trillion a day. The total value of international trade, including trade that does not require currency conversions such as trade within the Euro Zone or other common currency areas, is approximately US$40 trillion a year.
- The net payments from the importers to the exporters may therefore be estimated at approximately US$20 trillion a year, an amount that can be covered with just four days of foreign exchange trading!
- Are all these foreign exchange transactions necessary for the world economy to function? While these foreign exchange transactions are clearly beneficial to and profitable for the commercial banks, are they helpful or harmful to the world economy as a whole?

Possible Policies for Mitigating the Costs of Economic Globalization

- A Universal Tax on Both Exports and Imports
- Reducing Short-Term Capital Inflows and Outflows
- Enhancing the Social Safety Net
- Investment in Intangible Capital

A Universal Tax on Both Exports and Imports: Taxing the Winners to Compensate the Losers

- A universal tax can be imposed on both exports and imports of an economy, with the proceeds being used to compensate the "losers". The justification is that the major beneficiaries of international trade (economic globalization) in each country are its exporters (higher quantities of production, exports and profits) and its importers and consumers and users of imports. Thus, a tax to be levied on both exports and imports seems to be fair. This will also help to avoid any domestic price distortion between export and imports.
- The tax rate can be 1% or 0.5% but should basically be revenue-neutral, that is, sufficient revenues should be raised from the "winners" to compensate the "losers", no more and no less.
- If such a tax is adopted by all countries, or all WTO members, there will be no distortion of the international prices.
- One advantage of such a tax is that the proceeds can be used to protect the income of workers who lose their jobs because of imports. For those who are young, they should be re-trained with income support during the re-training period. For those who are say past 55 years of age, for whom the probability of their being able to adapt to re-training to qualify for a better paying job is low, they should simply be provided income support until they reach retirement age. So the tax revenue can be used as a kind of transitional and if necessary long-term income assistance.

Reducing Short-Term Capital Inflows and Outflows

- Free and unregulated short-term capital flows, both outbound and inbound, can be greatly de-stabilizing to the foreign exchange market, the exchange rate, and the capital market of an economy.
- Short-term capital inflows and outflows pose particular risks to developing economies because they unnecessarily increase the degree of volatility of the exchange rate and therefore discourage international trade and long-term foreign direct and portfolio investment.
- A freely floating exchange rate regime potentially attracts speculators and is subject to speculative attacks as the 1997-1998 East Asian currency crisis has shown.
- Reduction of the permissible leverage in currency speculation can discourage currency speculators and help stabilize the foreign exchange market and the exchange rate.

Reducing Short-Term Capital Inflows and Outflows

- One way to discourage and reduce short-term capital flows is the imposition of a Tobin tax on both inbound and outbound capital flows, but not current account flows. This is, in effect, a currency conversion tax on the entry and exit of capital.
- The Tobin tax was introduced by the late Prof. James Tobin, Nobel Laureate in Economic Sciences, as a currency transaction tax. Tobin suggested his currency transaction tax in 1972 in his Janeway Lectures at Princeton, shortly after the Bretton Woods system of monetary management ended in 1971. It can be applied to cross-border capital account currency exchange transactions.
- A typical rate for the Tobin tax is on the order of 1% or 0.5%.

Reducing Short-Term Capital Inflows and Outflows

- The Tobin tax can function as a device for discriminating between long-term and short-term capital flows. Suppose a Tobin tax of 1% is imposed on all capital account inflows and outflows. Then a one-month round-trip from U.S. Dollars into Renminbi and vice versa will imply a cost of 24% per annum, which should be sufficient to discourage most currency speculators. But for a long-term direct investor with a horizon of five years, the cost would only be an affordable 0.4% per annum.
- The tax rate of the Tobin tax can also be varied as necessary, providing additional flexibility—it can vary within a continuum from 0 to infinity—with infinity amounting to no inflow or outflow. It is also possible to impose the Tobin tax asymmetrically, that is, on either inflows or outflows, for example, in a real crisis.

Reducing Short-Term Capital Inflows and Outflows

- Moreover, a Tobin tax can enable the so-called "Impossible Trinity". The "Impossible Trinity", a concept due to Prof. Robert Mundell, Nobel Laureate in Economic Sciences, states that it is impossible for an economy to have all three of the following at the same time:
- (1) A fixed exchange rate;
- (2) Free capital movement (absence of capital controls);
- (3) An independent monetary (i.e. interest rate) policy.
- However, the imposition of a Tobin tax makes it possible to maintain an interest rate differential between domestic capital and international capital, allowing the domestic central bank or monetary authority to have some degree of flexibility in its monetary, and in particular, interest rate policy.

Reducing Short-Term Capital Inflows and Outflows: A Tobin Tax

- Mundell, Robert A. (1963). "Capital mobility and stabilization policy under fixed and flexible exchange rates". Canadian Journal of Economic and Political Science, 29 (4): 475–485. doi:10.2307/139336. Reprinted in Mundell, Robert A. (1968). International Economics. New York: Macmillan.
- Fleming, J. Marcus (1962). "Domestic financial policies under fixed and floating exchange rates". IMF Staff Papers, 9: 369–379. Reprinted in Cooper, Richard N., ed. (1969). International Finance. New York: Penguin Books.
- James Tobin (July/October 1978). "A Proposal for International Monetary Reform". Eastern Economic Journal, (Eastern Economic Association): 153–159.

Enhancing the Social Safety Net

- Global competition can cause temporary as well as permanent disruptions in employment and economic growth.
- Under economic globalization, there can be two types of external economic disturbances that impact the domestic economy. The first type is of a cyclical nature, for example, the U.S. economy goes into a recession. For this type of economic disturbances, the best defense is a social safety net that provides unemployment benefits for a transitional period with the expectation that a cyclical downturn will be followed by a cyclical recovery.
- The second type is of a structural nature, for example, a domestic industry may need to contract as a result of imports, and workers are displaced. This will require re-training of younger workers and the provision of long-term income support for older workers.
- In both cases, the social safety net must be enhanced, refined and strengthened. A universal tax on both exports and imports can provide the necessary revenue for dealing with the structural problem.
- There should also be continuing education and training programs for workers.

Investment in Intangible Capital

- Technological obsolescence, whether domestic or imported, can also cause similar disruptions in employment and economic growth (e.g., Amazon.com wipes out mom-and-pop bookstores in the U.S. and elsewhere).
- In order to survive these disruptions and disturbances, the comparative advantages of an economy have to be continually created, maintained, preserved and renewed in addition to enhancement of the social safety net.
- The East Asian economic development experience provides an example of created as opposed to natural comparative advantage (human capital and R&D capital can substitute for natural resources).

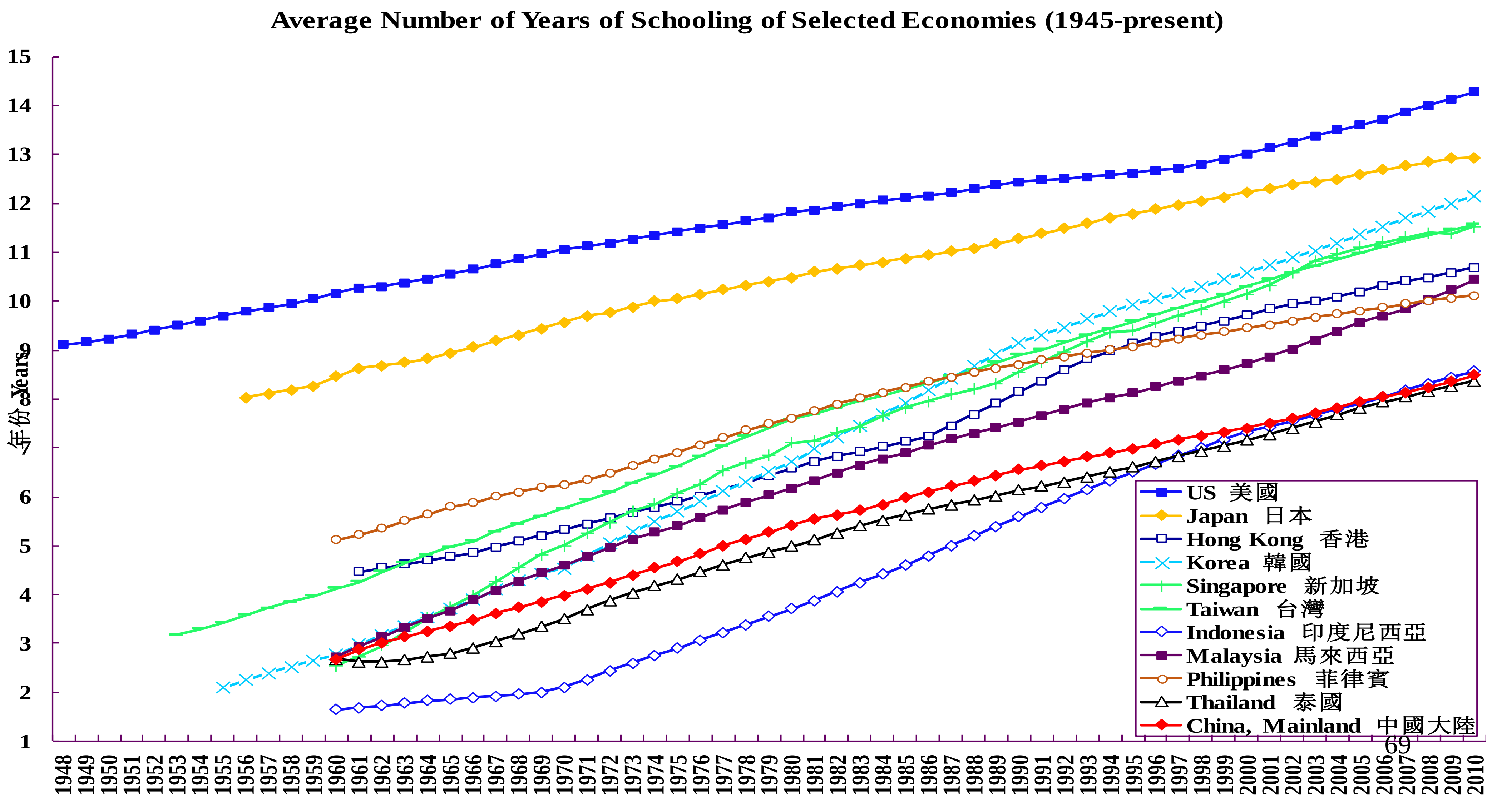
Investment in Intangible Capital

- Intangible capital enables the creation of new comparative advantages. Economies must adjust as new competitors emerge in the process of economic globalization. Taiwan used to be the largest shoe manufacturer in the world, but it is no longer, and it is unlikely that Taiwan will ever have cheap enough labor to make shoes again.
- Innovation is the most important driving force of economic growth today, especially for mature economies with their already-high capital-labor ratios and little growth in labor.
- Sustained investment in intangible capital such as human capital and research and development (R&D) is essential for the occurrence of technical progress or growth in total factor productivity in an economy.

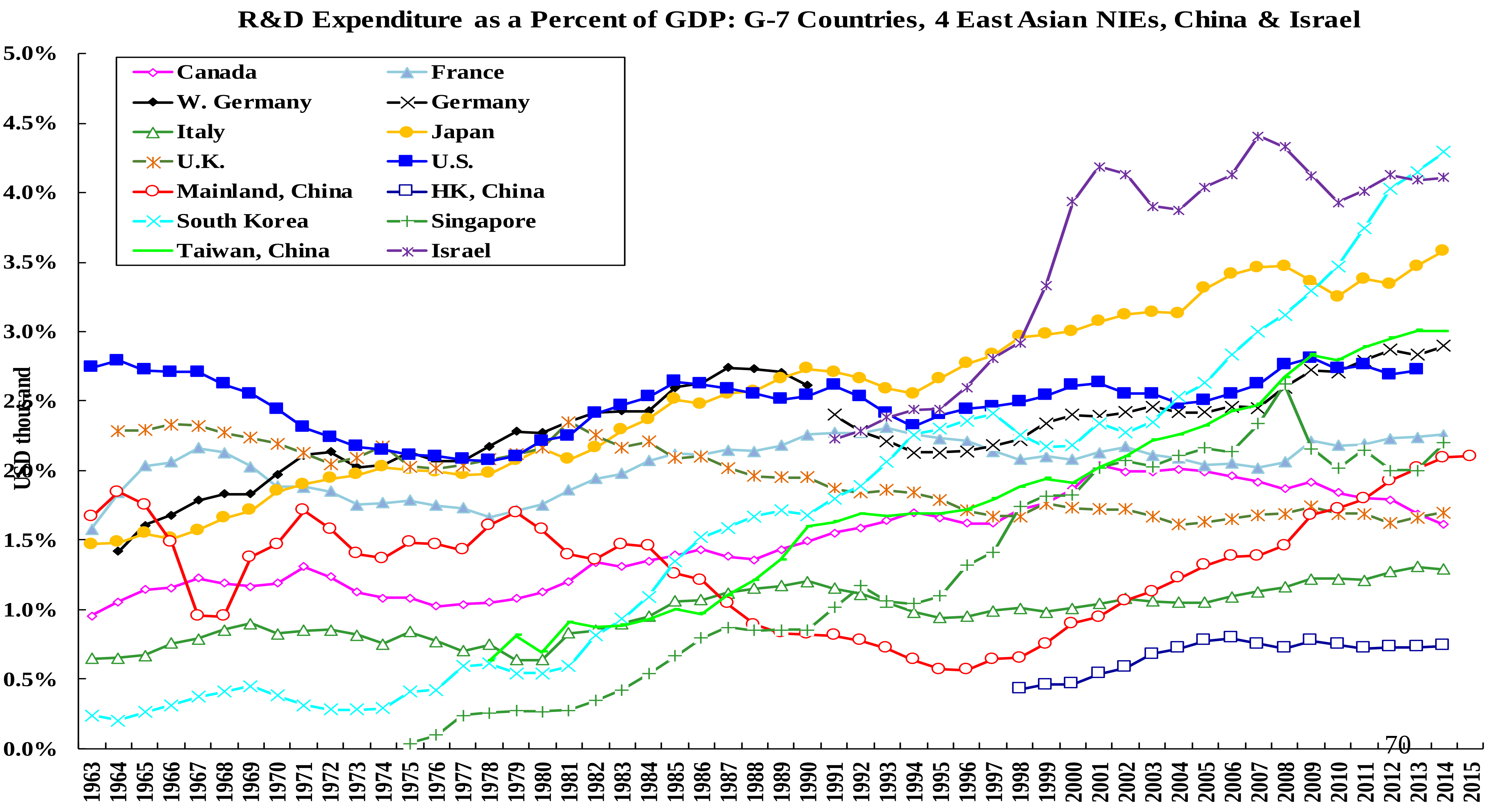
Investment in Intangible Capital

- One indicator of the level of human capital in an economy is the average number of years of schooling per person in the working-age population. In the following chart, the average number of years of schooling is compared across selected economies.
- By this measure, the United States and Japan are clearly the global leaders. South Korea and Taiwan have also been catching up fast. Most of the other East Asian economies also have quite rapidly increasing levels of human capital but it will take a while before they can catch up with the levels of human capital in the developed economies.
- R&D expenditure as a percent of GDP also shows similar trends.

Average No. of Years of Schooling per Person in the Working Age Pop., Selected Economies



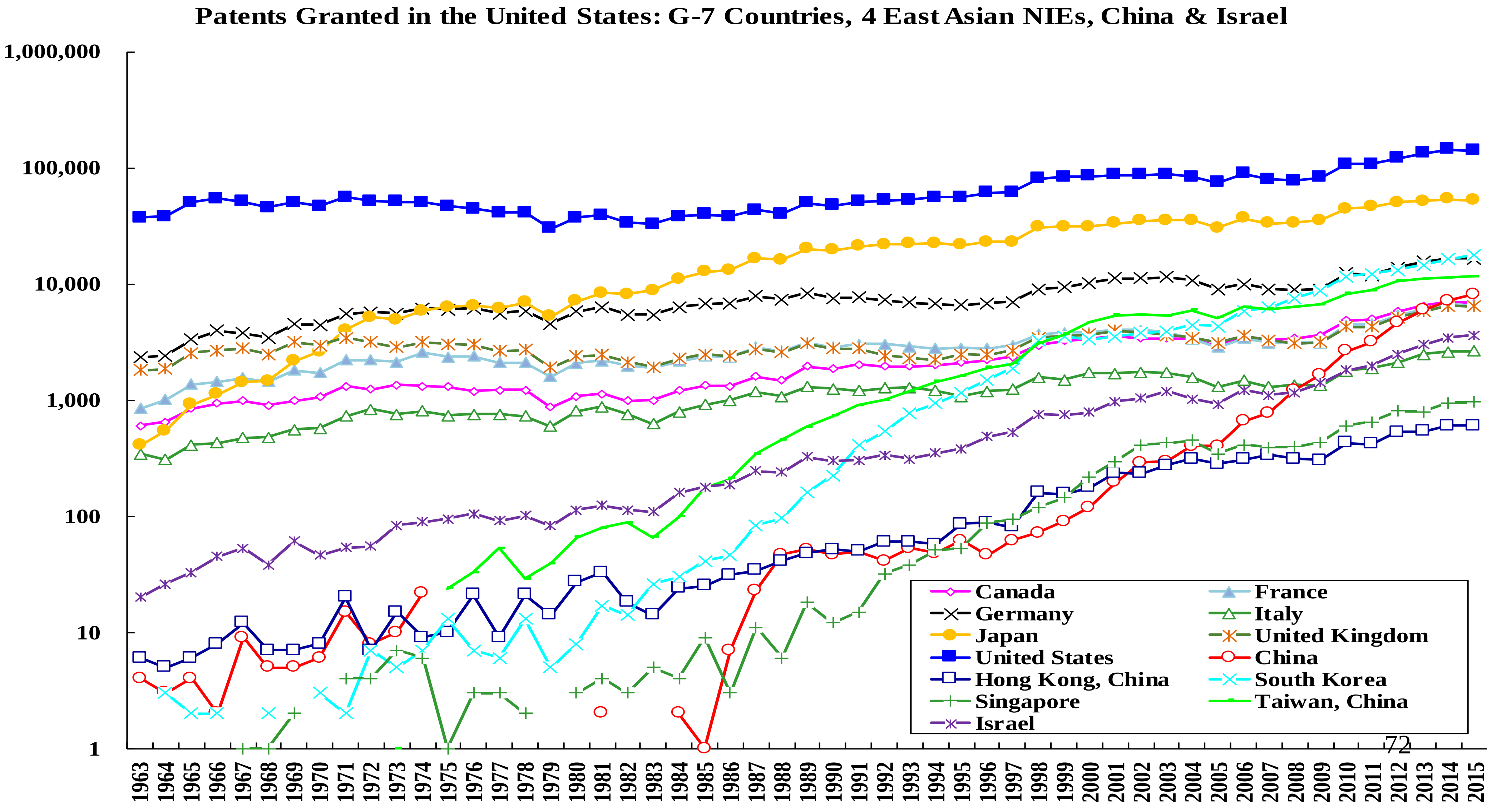
R&D Expenditures as a Ratio of GDP: G-7 Countries, 4 East Asian NIES, China & Israel



Global Economic Trends and Uncertainties: The Rising Importance of Intangible Capital

- One indicator of the potential for technical progress (national innovative capacity) is the number of patents created each year. In the following chart, the number of patents granted in the United States each year to the nationals of different countries, including the U.S. itself, over time is presented.
- The U.S. is the undisputed champion over the past forty years, with 140,969 patents granted in 2015, followed by Japan, with 52,409. (Since these are patents granted in the U.S., the U.S. may have a home advantage; however, for all the other countries and regions, the comparison across them should be fair.)
- The number of patents granted to Mainland Chinese applicants each year has increased from the single-digit levels prior to the mid-1980s to 8,166 in 2015.
- The economies of South Korea and Taiwan, granted 17,924 and 11,690 U.S. patents respectively in 2015, are still far ahead of Mainland China. In contrast, the number of U.S. patents granted to Hong Kong nationals was only 601 in 2015.

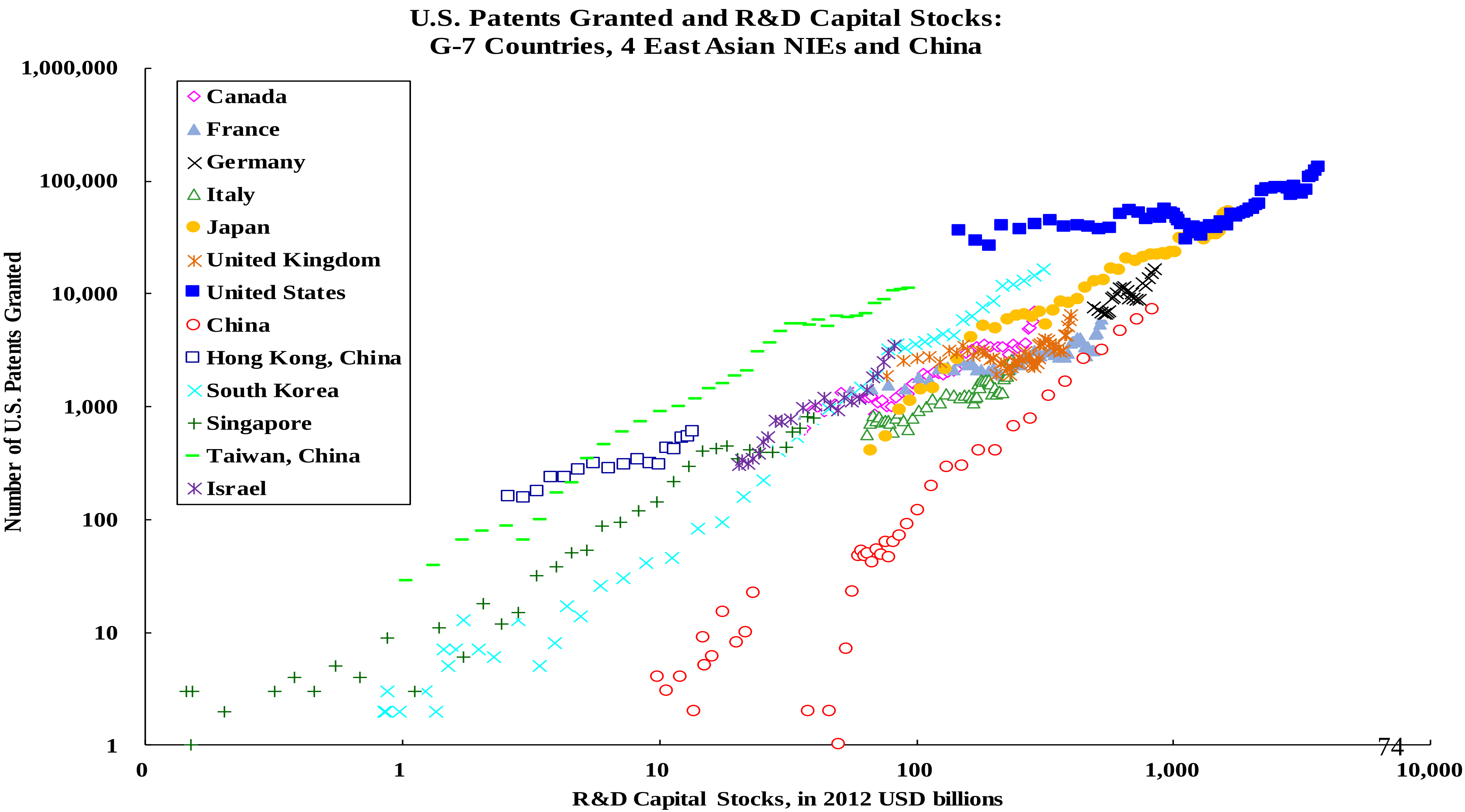
Patents Granted in the United States: G-7 Countries, 4 East Asian NIEs, China & Israel



Global Economic Trends and Uncertainties: The Rising Importance of Intangible Capital

- The R&D capital stock, defined as the cumulative past real expenditure on R&D less depreciation of 10% per year, is an useful indicator of innovative capacity. It should quite properly be treated as capital since R&D efforts generally take years to yield any results.
- It can be shown to have a direct causal relationship to the number of patents granted (see the following chart, in which the annual number of U.S. patents granted is plotted against the R&D capital stock of that year for each country).
- The chart shows clearly that the higher the stock of R&D capital of an economy, the higher is the number of patents granted to it by the U.S.

U.S. Patents Granted and R&D Capital Stocks: G-7 Countries, 4 EANIEs, China & Israel



Concluding Remarks

- Economic globalization brings benefits to all economies, even to those that are already active participants in the world economy. In particular, it has the potential of bringing benefits to the poorest people in the world and has actually done so (e.g., in Taiwan in the 1960s and 1970s and in Mainland China since 1979). India and in time Africa are potential beneficiaries of a continuing robust globalization.
- The potential aggregate benefits to the world and to the individual economies are always positive, provided that the markets are competitive, that is, not monopolized by one seller or monopsonized by one buyer, and the transactions are voluntary.

Concluding Remarks

- The principal problem of economic globalization is one of the domestic distribution of the gains within each country and region. (Of course there is also the issue of the distribution of gains among the trading-partner countries, but that is a different problem altogether.)
- It is the government's responsibility to try to redistribute part of the gains from the winners to the losers. This will include the provision of transitional and if necessary long-term income support to the displaced workers and of re-training and re-employment assistance.

Concluding Remarks

- If the government can ensure that that everyone wins under economic globalization, that no net losers are created under continuing globalization, and that the gains are equitably distributed, there will be popular support for continuing globalization.
- The economy of Taiwan has been a significant beneficiary of globalization both directly and indirectly. It is in the interests of Taiwan to adopt policies that will enable it to support continuing economic globalization.