

China and the World Economy

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A Preview

- ◆ China in the World Economy
- ◆ China as the World's Factory and the World's Market
- ◆ China as a Continental Economy
- ◆ China as a Source of Savings and Investment
- ◆ China and the Environment
- ◆ The Renminbi as a Reserve Currency?
- ◆ Concluding remarks

The Chinese Economy Today

- ◆ Mainland China is currently the fastest growing economy in East Asia and the World—averaging approximately 10% per annum since the beginning of economic reform in 1978.
- ◆ Between 1978 and 2006, Chinese real GDP grew from US\$180 billion to US\$2.68 trillion (2006 prices) (4th largest economy in the world) and real GDP per capita grew from US\$190 to US\$2,026. By contrast, the U.S. GDP (approximately US\$13.0 trillion) and GDP per capita (approximately US\$44,000) are respectively 5 and 22 times the comparable Chinese figures in 2006.
- ◆ Despite its rapid growth, China is still a developing economy in terms of its real GDP per capita. An economy is generally considered to be developed if its GDP per capita exceeds US\$10,000. It will probably take another 20-25 years before China joins the ranks of developed economies, and a further 20-25 years before China reaches the same level of per capita GDP as the United States.

The Chinese Economy Today

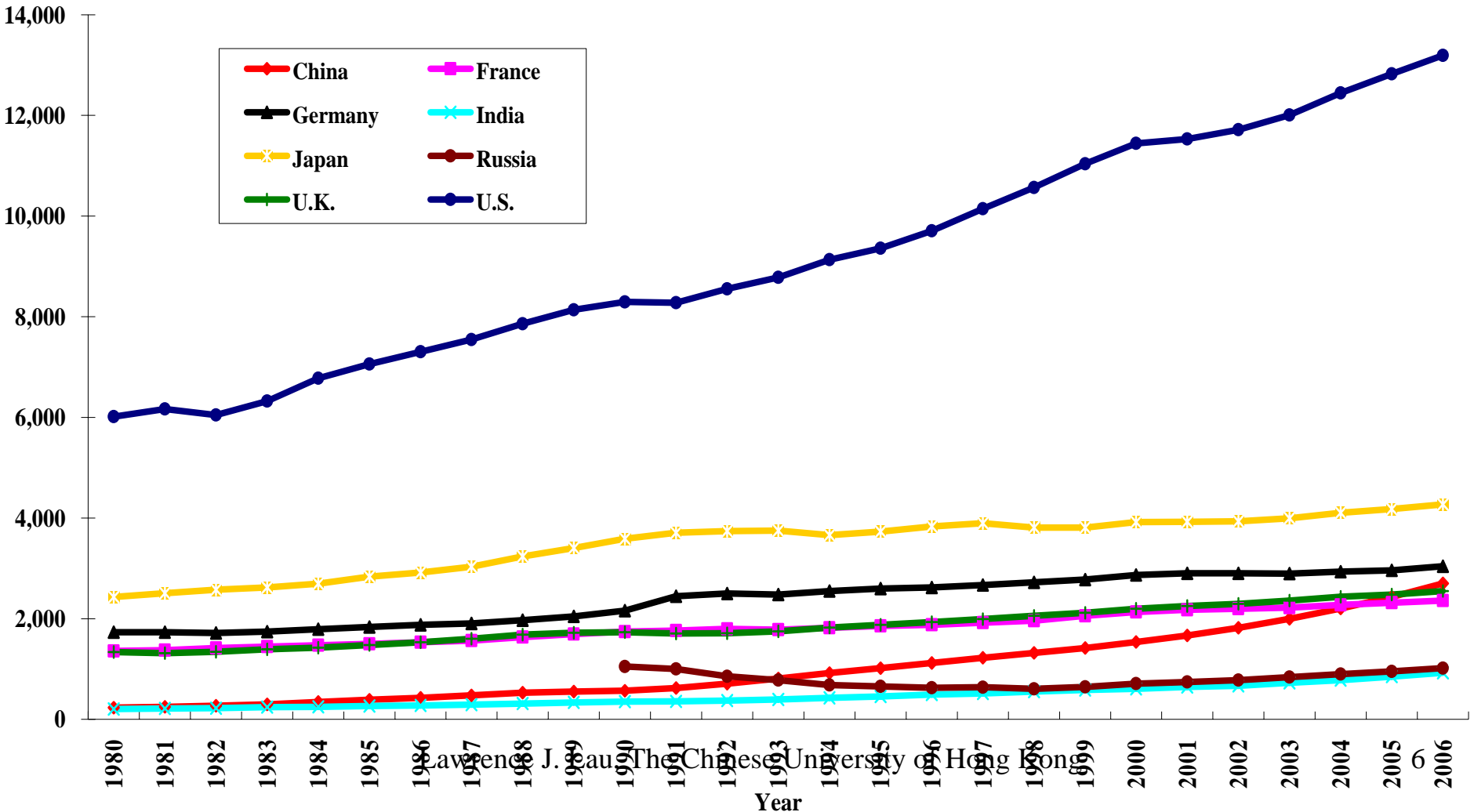
	1978	2006
	US\$	(2006 prices)
Real GDP	180 bill.	2.68 trill.
Real GDP per capita	190	2,026

The Chinese Economy Today

	U.S.	China
	US\$ (current prices)	
2006 GDP	13.0 trill.	2.68 trill.
2006 GDP per capita	44,000	2,026

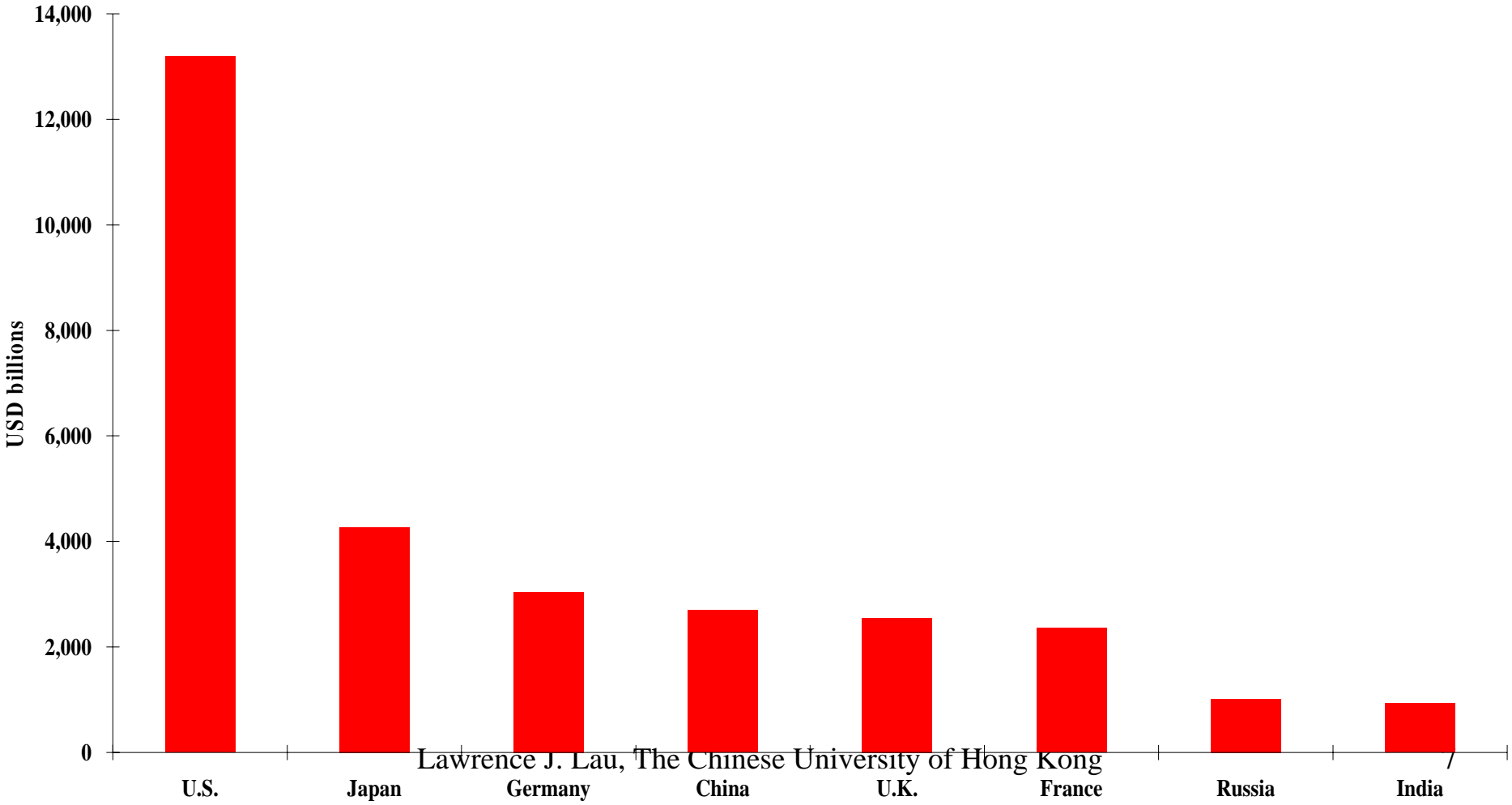
Real GDP of Selected Countries, 2006 Prices

Real GDP of Selected Countries, in 2006 prices



Real GDP of Selected Countries, 2006

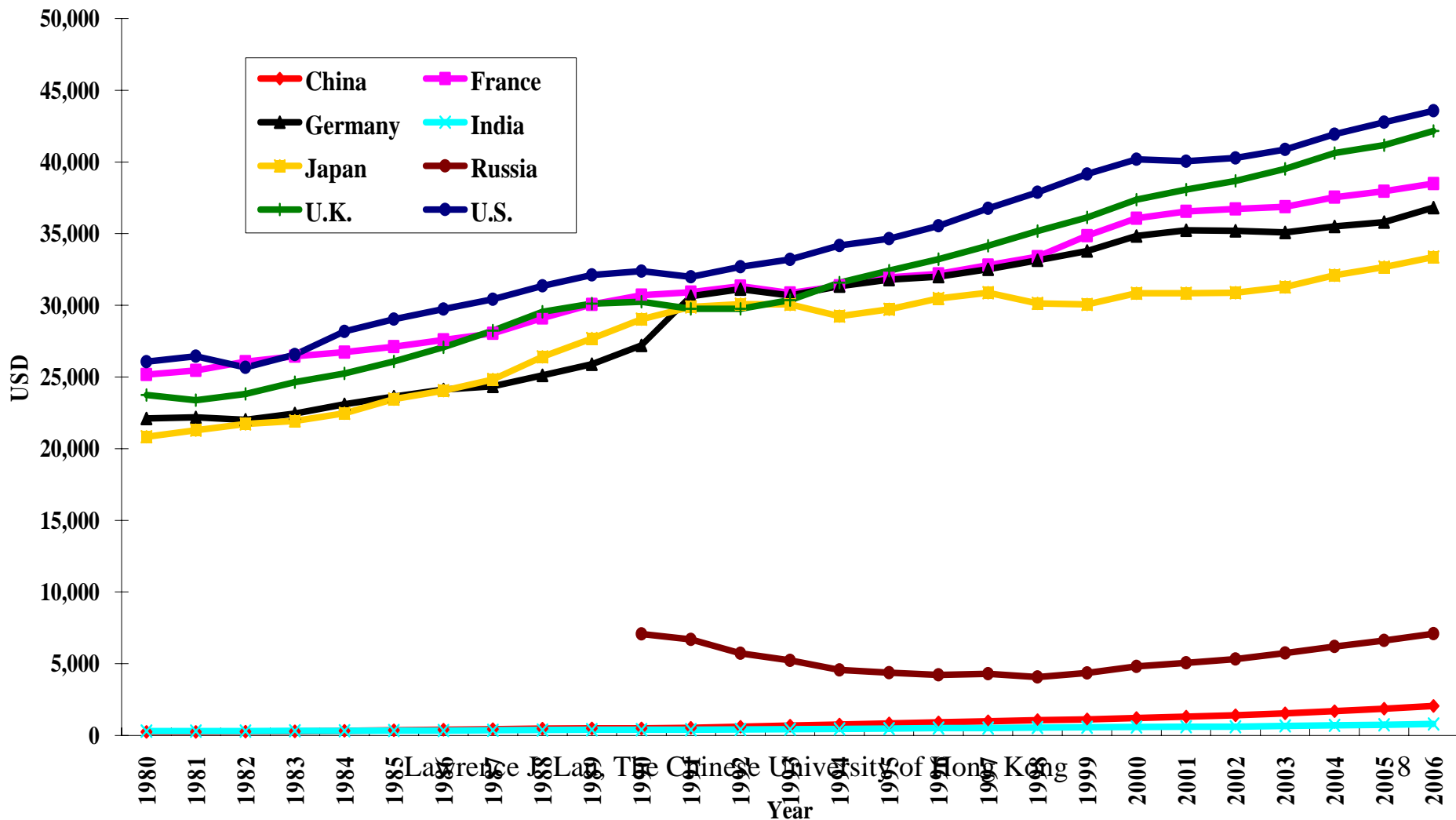
Real GDP of Selected Countries in 2006, in 2006 prices



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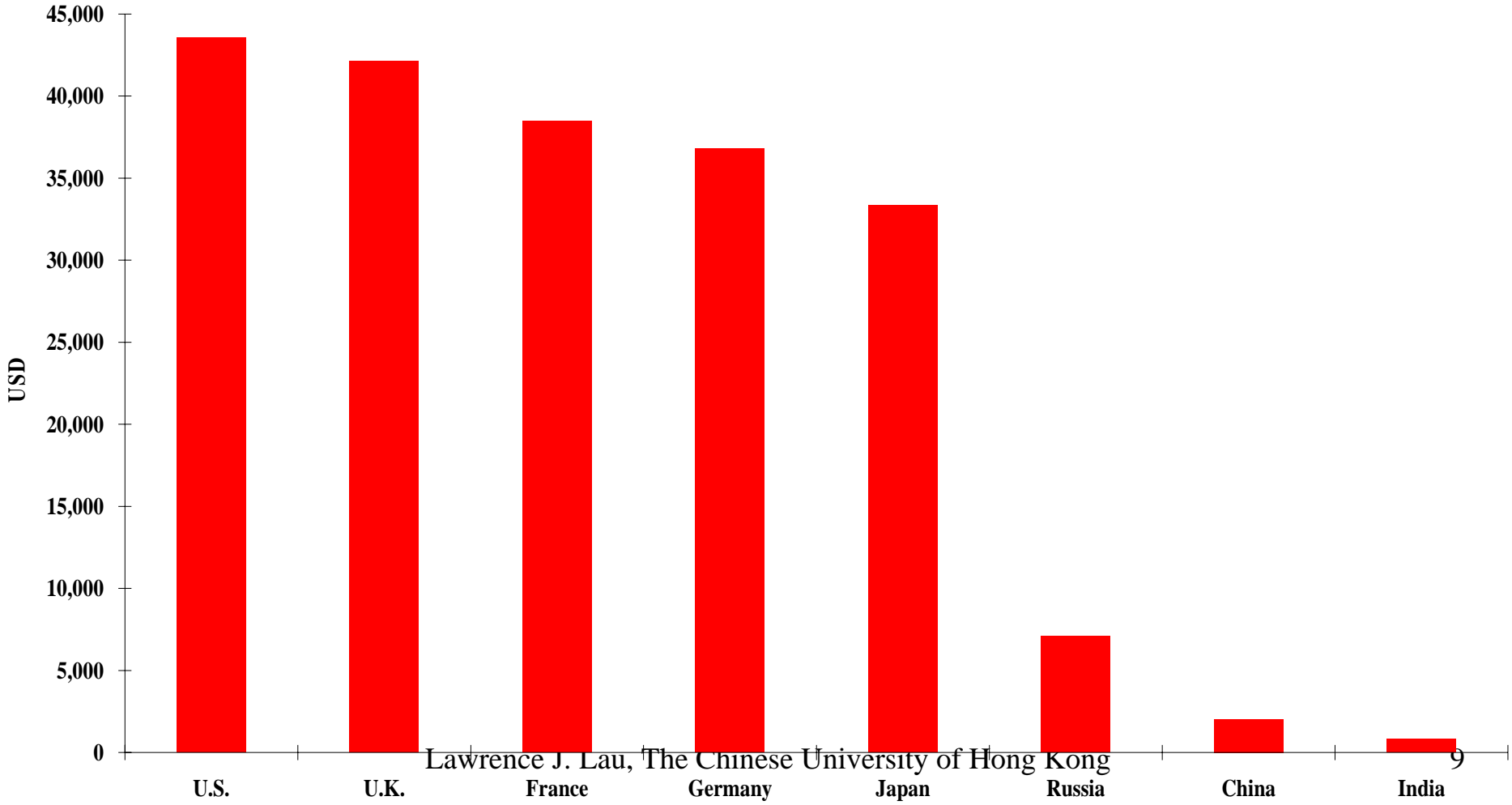
Real GDP per Capita of Selected Countries, 2006 prices

Real GDP per Capita of Selected Countries, in 2006 prices



Real GDP per Capita of Selected Countries, 2006

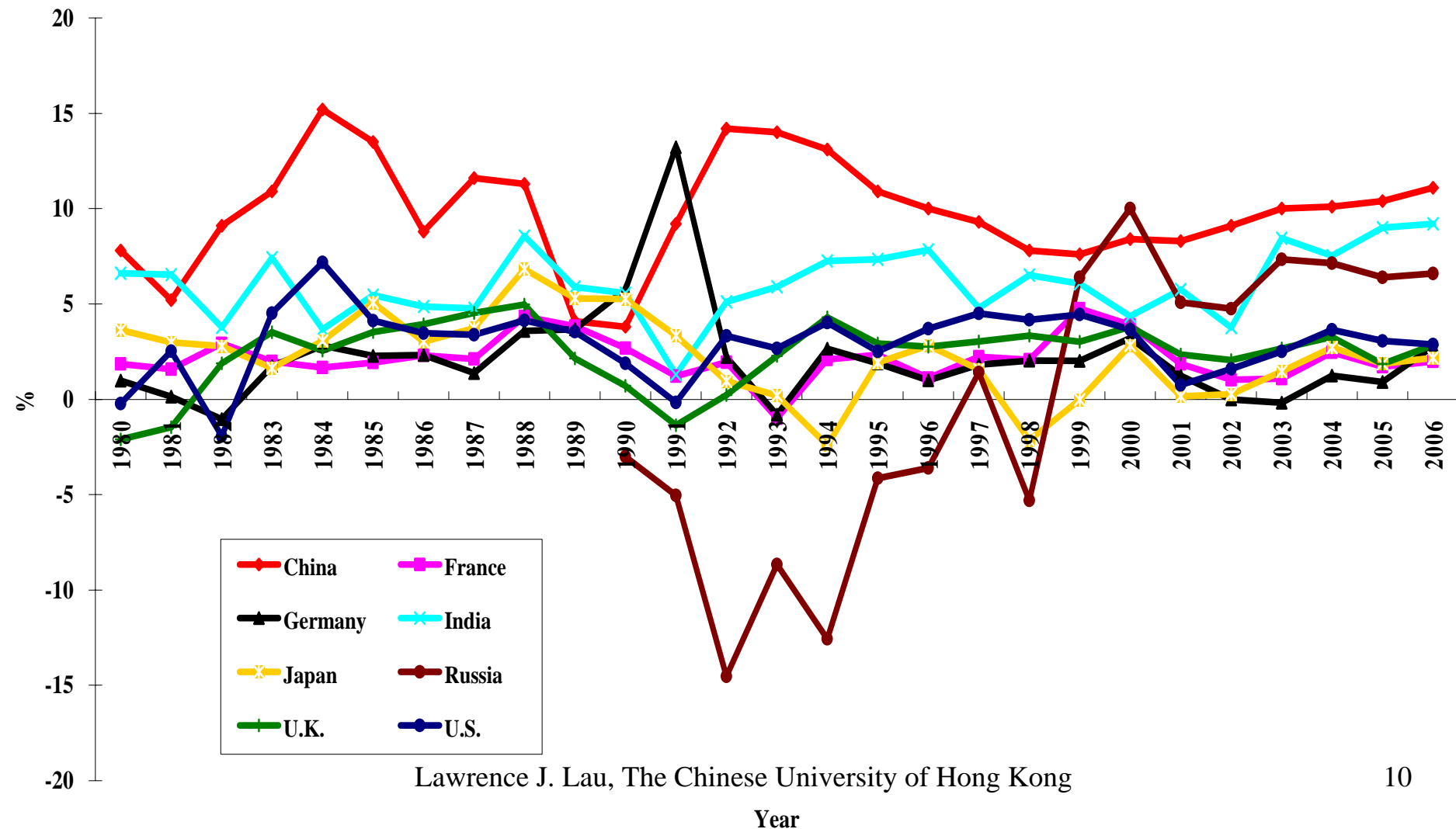
Real GDP per Capita of Selected Countries in 2006, 2006 prices



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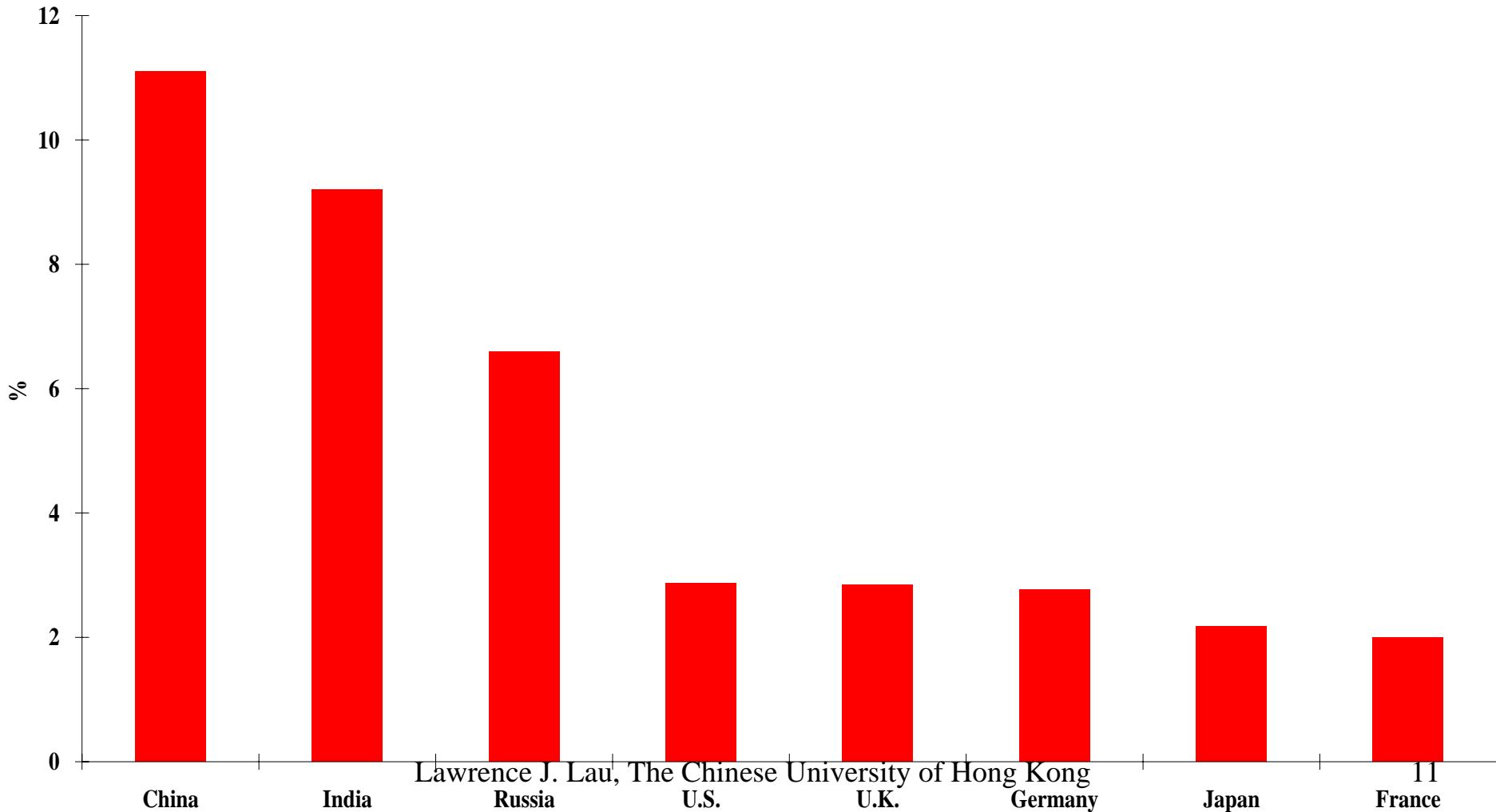
Rates of Growth of Real GDP of Selected Countries

Rates of Growth of Real GDP of Selected Countries, percent



Rates of Growth of Real GDP of Selected Countries, 2006

Rates of Growth of Real GDP of Selected Countries, 2006, percent

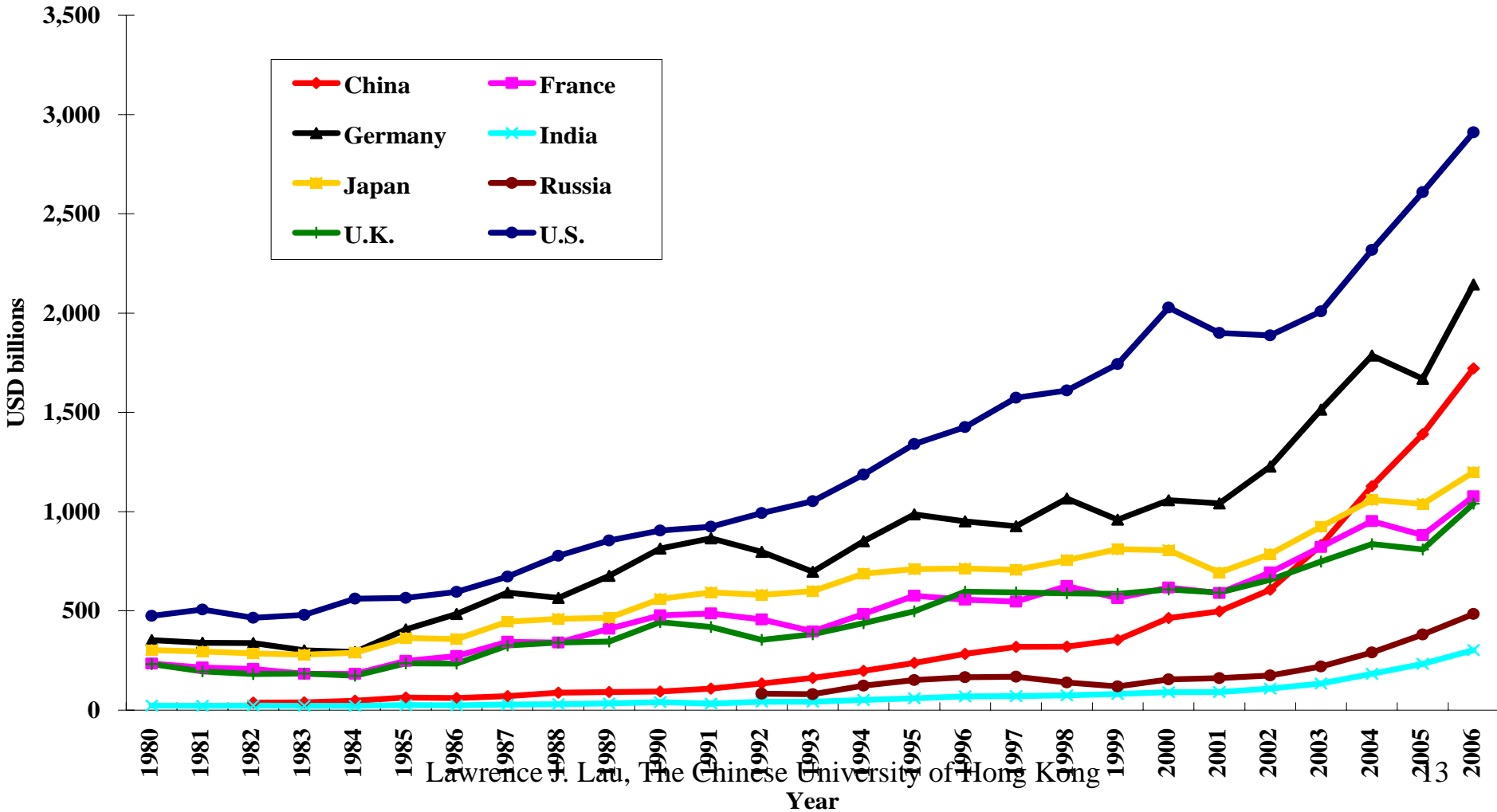


Chinese Economic Growth

- ◆ However, such high rates of economic growth is not unprecedented. The Japanese economy grew just as fast between 1955 and 1975 and the South Korean economy also grew just as fast between 1965 and 1985.
- ◆ The Chinese economy has two principal advantages:
 - ◆ A high national savings rate of currently in the mid-40s. China is therefore self-sufficient in capital and not dependent on foreign direct investment or foreign loans to maintain its high rate of investment.
 - ◆ An almost unlimited supply of surplus labor—there will not be any upward pressure on the real wage rate of unskilled entry-level labor for decades to come.

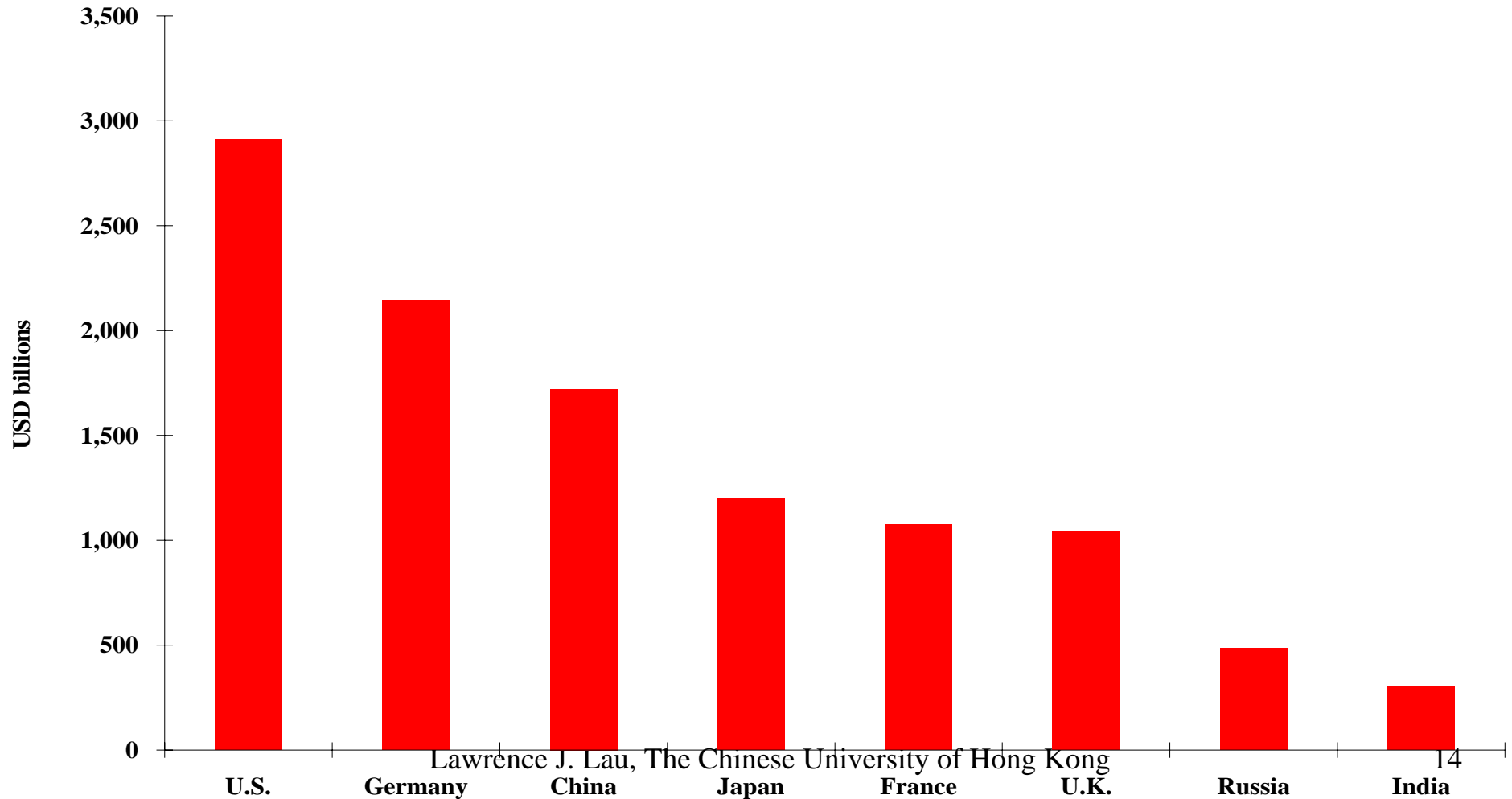
Total International Trade, Selected Countries

Total International Trade of Selected Countries



Total International Trade, Selected Countries, 2006

Total International Trade of Selected Countries in 2006



China as the World's Factory

- ◆ China is often referred to as the “World’s Factory” because of the dominant position of its exports in the markets for light manufactured goods such as textiles, apparel, shoes, electrical and electronic appliances, and furniture around the world, on the basis of its low real wage rate (surplus labor).
- ◆ However, the Chinese domestic value-added on these exports remains low, averaging 20.4%. In part this is because more than 50% of total exports are “processing” exports, that is, production for exports only based on imported intermediate inputs, raw materials, and equipment.
- ◆ Thus a 10% revaluation of the Renminbi will result in a 2% net increase in the direct costs of Chinese exports in US\$ terms, and hence a very limited impact on the volume of Chinese exports.
- ◆ Moreover, almost 60 percent of Chinese exports is conducted by foreign-invested enterprises. Thus, a high proportion of the “profits” from the Chinese export trade accrues to foreign rather than Chinese nationals.

China as the World's Market

- ◆ China is also rapidly becoming the “World’s Market” because of its increased demands for goods and services around the world:
 - ◆ It is the World’s major user and importer of oil, minerals, and other natural resources and primary raw materials.
 - ◆ It has also become the World’s fastest-growing market for consumer goods, such as automobiles, cell phones, and tourism services, and producer goods such as aircrafts, computers, mass-transit systems, nuclear power plants and specialty steel.
- ◆ It has been an engine of growth for the Asia-Pacific region (Northeast Asia, Southeast Asia, Australia and New Zealand) since 2000. China runs a trade deficit vis-à-vis almost all countries in East Asia. It has become the most important trading partner for Hong Kong, South Korea and Taiwan.

Additional Advantages of the Chinese Economy: A Large Domestic Market

- ◆ A large domestic market permits the realization of economies of scale.
- ◆ A large domestic market also allows China a significant influence on the development and setting of technological standards for the domestic as well as the world markets.
- ◆ A large domestic market also enhances the returns to R&D and other forms of intangible capital. Economies of scale in the creation and utilization of intangible capital imply that the rate of return increases more than proportionally with the size of the market. The fixed development costs of innovative technologies can be more easily recovered from a large base of domestic demand.

The Growth of the Chinese Economy and the Pattern of World Trade

- ◆ Because of the rapid economic growth of China, and the demand and supply that such economic growth has generated, the economies of East Asia now trade more with one another than with economies outside of East Asia, including the United States. This is a sea change compared to twenty-five years ago. Interdependence of the East Asian economies has been rising over the years and dependence on the United States and Western Europe has declined.
- ◆ China has become the most important export market for most East Asian economies and runs trade deficits vis-à-vis almost every one.
- ◆ China has been a staunch supporter of the ASEAN Free Trade Area and has offered “early harvest” to ASEAN countries to foster the ASEAN-China Free Trade Area and the ASEAN + 3 (China, Japan and South Korea) Trade Area.

China as a Continental Economy

- ◆ China is a large continental economy. While individual provinces and regions can pursue an export-led strategy (including exports to not only foreign countries but also other provinces/municipalities/regions), the country as a whole cannot pursue a solely export-led strategy. International trade will never be as important as other, smaller countries and regions and China must rely on domestic demand for further economic growth.
- ◆ Chinese economic growth would be quite similar to the experience of the United States in the 19th century. The United States grew largely on the basis of domestic demand. There was some foreign investment, but by and large exports was not important. The shares of exports in GDP in the United States and Japan are quite low. The share of Chinese exports in GDP will eventually decline to similar levels.

China as a Continental Economy

- ◆ The "wild-geese-flying pattern" metaphor of East Asian industrial migration over time, first introduced by Akamatsu, can apply to Chinese provinces and regions. East Asian industrialization started in Japan in the 1950s and successively migrated to Hong Kong, Taiwan, South Korea and Southeast Asia as the real wage rates in these economies rose and sometimes also as export quotas were imposed by developed economies, and then to Mainland China. But industrialization can continue to migrate and spread within Mainland China just as it did before, from the coastal region gradually to the inland region, province by province, region by region, until most of China becomes industrialized.

Vulnerability to External Disturbances

- ◆ Despite fluctuations in exports and imports, the rate of growth of Chinese real GDP has remained remarkably stable at the high single digits and low double digits. This is due to the combination of two factors: the relatively low share of exports in GDP, and the relatively low domestic value-add content of Chinese exports.
- ◆ Chinese economic growth to date has also been investment-led, as opposed to consumption-led or export-led, with the bulk of the investment domestically financed with domestic savings. Foreign direct investment accounts for less than 10% of aggregate domestic gross fixed investment.

Vulnerability to External Disturbances

- ◆ Exports constitute approximately 35-40% of Chinese GDP; however, the direct domestic value added content of Chinese exports is low. It averages 20.4% on exports to the world, and 17.7% on exports to the United States.
- ◆ Thus, the GDP originating from exports is only approximately 8% (40% times 20% = 8%).
- ◆ 8% of GDP is a very significant amount that will result in hardships if lost overnight; however, even if the 8% of the economy does not grow, the economy as a whole will do fine if the remaining 92% continues to grow.
- ◆ Even if we include both direct and indirect domestic value-added, which amount to 46.6% of exports, the GDP originating from exports would constitute less than 20%. Even if 20% of the economy does not grow, the rest of the economy can still grow healthily.

Vulnerability to External Disturbances

- ◆ China might, however, be vulnerable to interruption of foreign energy supplies. Thus China must pursue a policy of:
 - ◆ (1) Energy conservation;
 - ◆ (2) Imposition of a gasoline tax so that the retail price of gasoline approaches the levels comparable to those of Western Europe and Japan to encourage both conservation and efficiency;
 - ◆ (3) Intensified development of coal resources and clean coal technologies;
 - ◆ (4) Establishment of strategic petroleum reserves;
 - ◆ (5) Development of renewable energy.

China as a Source of Savings and Investment

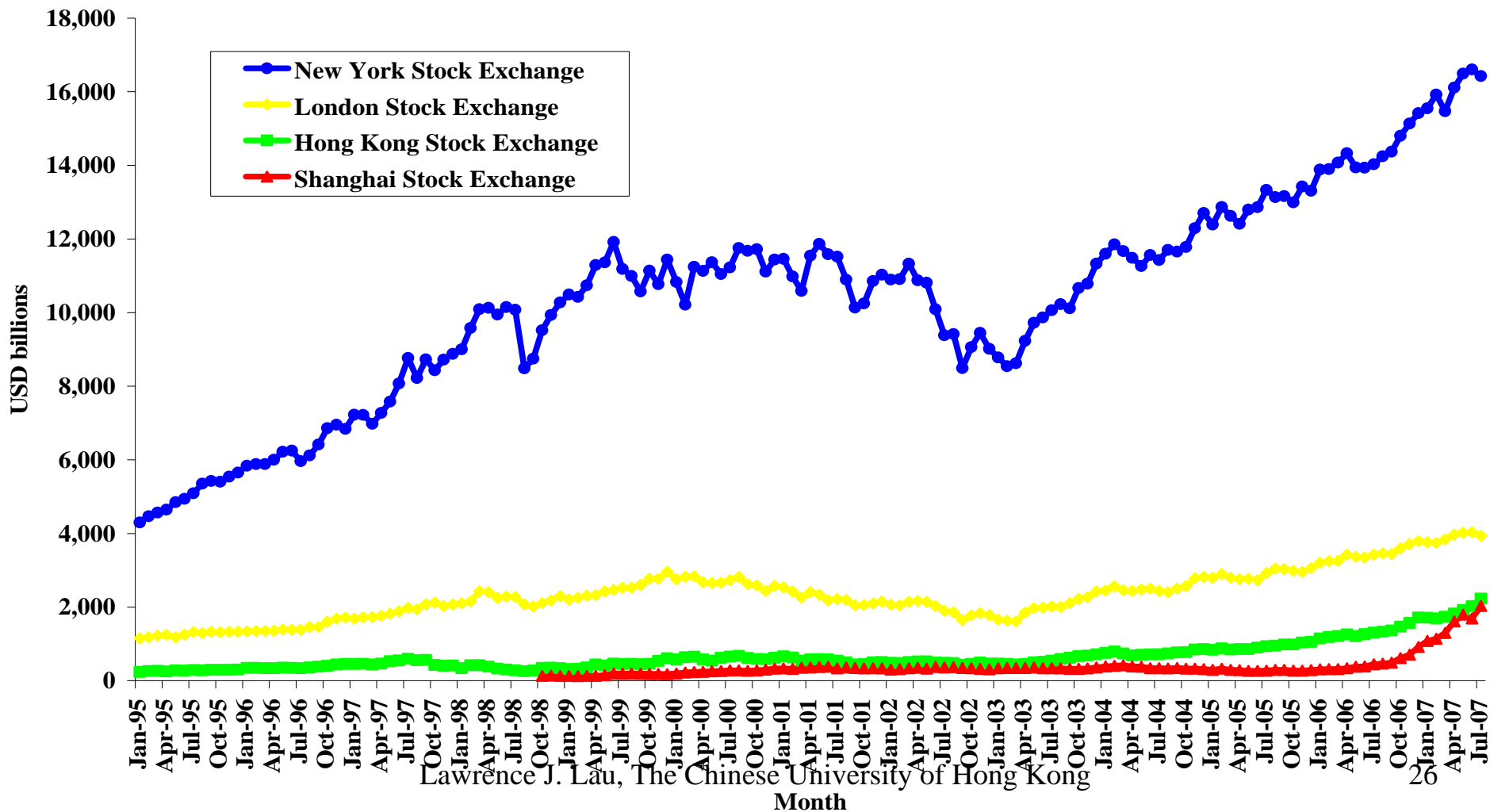
- ◆ With national savings and investment rates in excess of 40%, China no longer needs foreign capital per se. In fact, additional foreign capital inflows create pressure on the Renminbi to appreciate as well as excess liquidity in China, driving up prices of assets.
- ◆ China should still welcome foreign direct investment (FDI), but not because it needs the money, but because FDI brings with it technology, know-how, designs, markets, business models and methods that China does not have.
- ◆ China is poised to become a major capital-exporter because its domestic savings far exceed domestic investment that can be made profitably.

China as a Source of Savings and Investment

- ◆ More and more Chinese enterprises will be making foreign direct investments overseas, much as their Japanese counterparts did in the 1970s and 1980s.
- ◆ The investment by the China Investment Corporation (CIC) of US\$3 billion in the Blackstone Group is only 1.5% of its total expected capitalization of US\$200 billion.
- ◆ The Chinese objective is to maintain an overall balance of payments equilibrium (of zero) going forward. With its official foreign exchange reserves standing at US\$1.066 trillion at year-end 2006 (and more than 1.3 trillion today), China has overtaken Japan to become the country with the largest official foreign exchange reserves and certainly does not need more foreign reserves.

Market Capitalization of Stock Exchanges

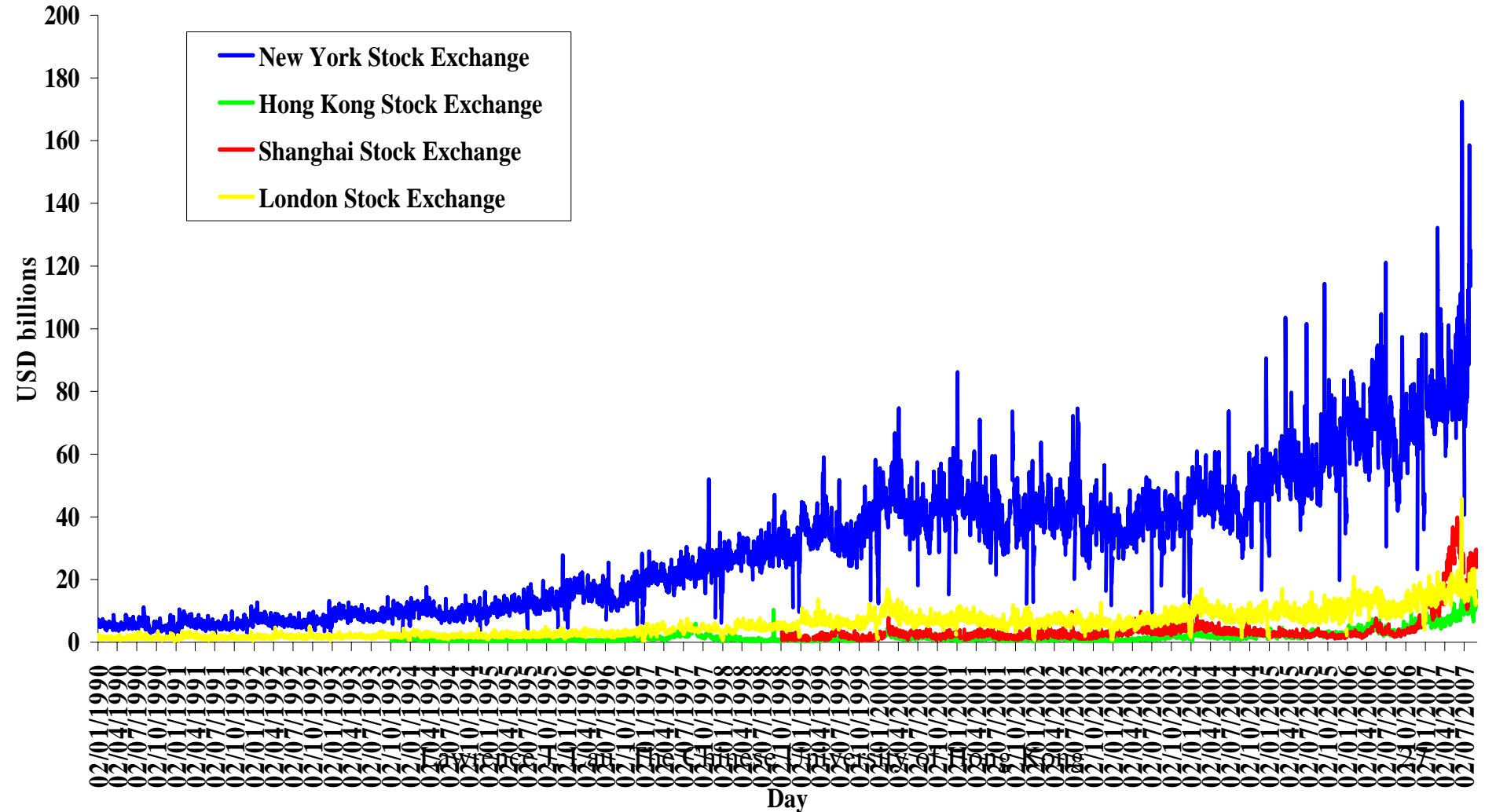
Market Capitalization of Four Stock Exchanges



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Daily Turnover of Stock Exchanges

Comparison of The Daily Turnovers of Four Stock Exchanges



The Through Train of Chinese Investment from Tianjin

- ◆ This is an extension of the programme of “Qualified Domestic Institutional Investor (QDII)”.
- ◆ It is win-win for both Mainland China and Hong Kong.
- ◆ For Hong Kong, there is the additional purchasing power and liquidity injected into the market. The higher the liquidity of a stock market, the better and more attractive it is to investors and enterprises looking for a stock market to do an initial public offering.
- ◆ For Mainland China, three objectives are achieved by the through train:
 - ◆ (1) It helps the economy of Hong Kong by increasing demand at the Hong Kong Stock Exchange;
 - ◆ (2) It provides Mainland Chinese investors with more choice;
 - ◆ (3) It reduces the accumulation of foreign exchange reserves and consequently the increase of excess liquidity in the Chinese economy.

The Through Train

- ◆ The first stage of the capital outflow from the Mainland is likely to be focused on arbitrage opportunities on stocks listed in both Mainland and Hong Kong.
- ◆ The price equalization of these dually listed shares (elimination of the premium or discount between the two markets) will mean the creation of a single virtual market and greatly increased liquidity for both stock exchanges.
- ◆ The second stage of the capital flow is likely to be focused on stocks not available in Mainland China and only available in Hong Kong, preferably blue-chip stocks, such as HSBC.
- ◆ Hong Kong should support the dual listing of Hong Kong-listed China-related enterprises in China; it will raise the price of the Hong Kong listed shares and greatly enhance liquidity because of the possibility of arbitrage. It is win-win. Hong Kong should not focus too narrowly on its own short-term interests.

The Through Train

- ◆ Eventual division of labour—trading in Renminbi in the Mainland, and in U.S. Dollars in Hong Kong.
- ◆ There may be some reluctance on the part of Mainland Chinese investors to commit their capital to Hong Kong because of expected appreciation of the Renminbi. It is possible to use a completely secured loan arrangement to help Mainland investors hedge against losses due to exchange rate changes. For example, the Mainland investor can deposit Renminbi funds in the Bank of China on the Mainland, and using these deposits as collateral, borrow U.S. Dollars or Hong Kong Dollars in Hong Kong to purchase shares on the Hong Kong Stock Exchange. The principal is thus perfectly hedged against any change in the exchange rate of the Renminbi.

China and the Environment--

Early Awareness

- ◆ Early awareness relative to other developed economies. China, with a per capita GDP of only US\$2,026, is to be congratulated for focusing on environmental quality at this stage of its economic development. The U.S. did not begin to clean up the air in Los Angeles until the 1970s, when its per capita GDP was already well in excess of US\$20,000. And Japan did not begin to clean up the pollution in Tokyo Bay and Osaka until the early 1970s.
- ◆ It is definitely true that the earlier an economy begins the environmental clean-up and protection process, the less costly, both monetarily and socially, it is.
- ◆ Enforcement of environmental protection laws on air and water against polluters.
- ◆ Promotion and encouragement of the use of renewable and non-polluting energy sources—solar energy, wind energy, and geothermal energy, co-generation.
- ◆ Promotion of a recycling economy (e.g., making an enterprise responsible not only for the quality of its products but also for their ultimate disposal).

China and the Environment-- Prevention of Global Warming

- ◆ All countries, developed and developing, must work out a formula for a fair sharing of the costs of preventing global warming.
- ◆ Simply setting a ceiling based on current usage is unfair and unreasonable as far as the developing economies are concerned. Any goal for controlling carbon emissions must involve both the developed economies reducing their emissions per capita and for the developing economies controlling the increases of their emissions per capita.
- ◆ Developing economies must price carbon fuels taking into account their external effects on global warming and adopt the latest most efficient technologies.
- ◆ China can contribute its part by providing leadership to craft such an agreement.

Environmental Degradation

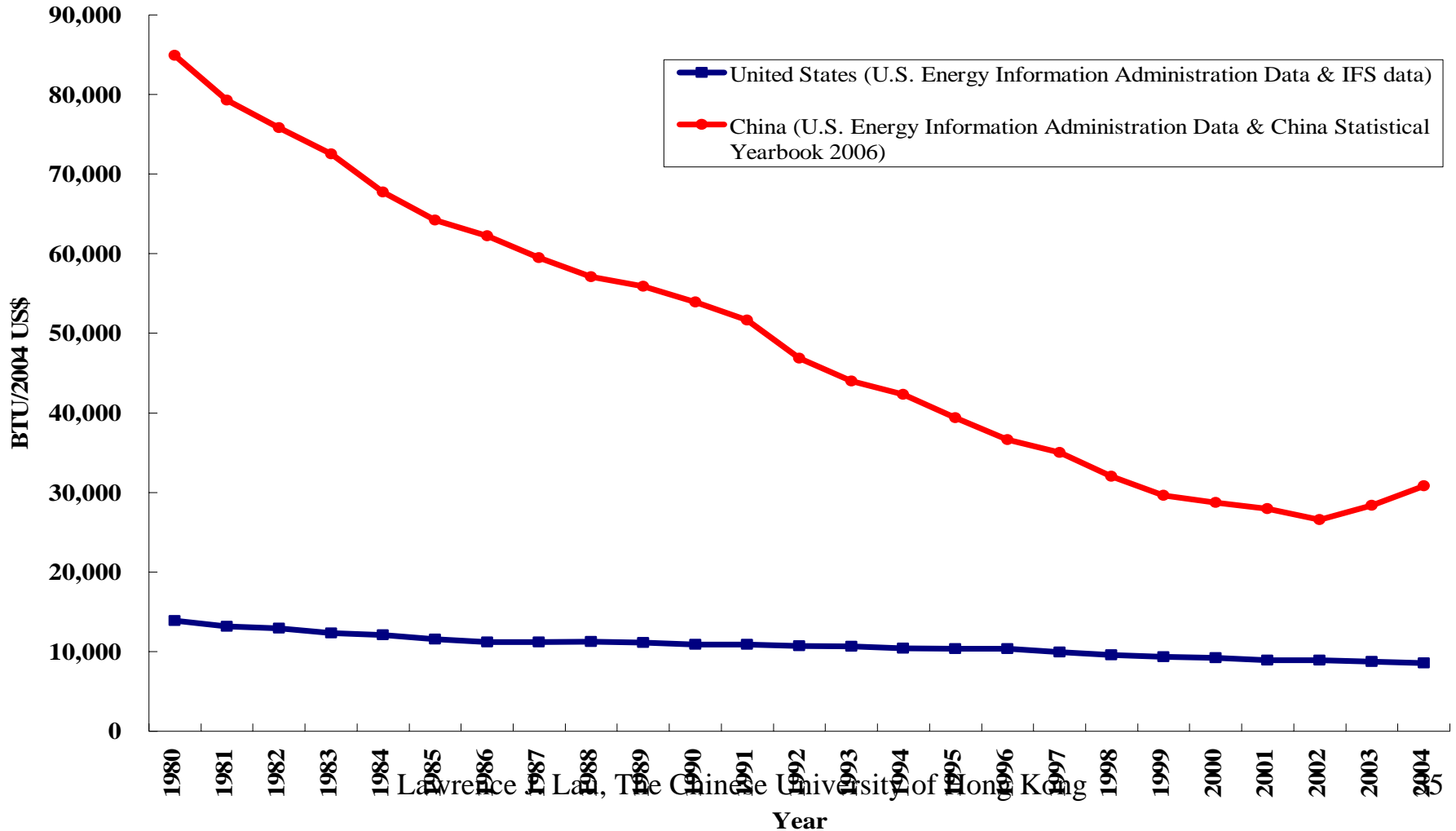
- ◆ Energy consumption in China has been growing more slowly than real GDP until 2002.
- ◆ Energy efficiency, in terms of energy consumption per unit GDP, has actually improved significantly during the past two decades, until the last couple of years.
- ◆ It is, however, still considerably higher than those of the United States, Japan, and other developed economies. This is due, in part, to the lower price of energy to the end users; but also, in part, to the different sectoral composition of GDP originating—which in turn also depends on the domestic consumption patterns (e.g., the distribution between goods and services).

Energy Efficiency

- ◆ It is also affected by differences in life-styles: locational patterns, including residential patterns, densities, types of housing, types of transportation, temperature preferences, etc.
- ◆ It is also affected by the differences in the energy efficiency of the existing capital stocks of both the enterprises and the households—structure and equipment, housing, automobiles—which are legacies of the historical actual and expected prices of energy.
- ◆ But this also indicates considerable room for further improvements in energy efficiency in China.

Primary Energy Consumption-GDP Ratios (China and the United States), 1980-2004

Primary Energy Consumption-GDP Ratio (China and United States)



Incentives—Appropriate Pricing and Taxation of Energy

- ◆ Pricing must reflect economic scarcities. Thus the prices of the different forms of energy--oil, natural gas, coal-- should be set at world levels. Low-income households can be protected through lifeline rates on different forms of energy, e.g., electricity. Similar rate structures can be used to protect the existing enterprises and their employment without encouraging expansion of uneconomical and inefficient uses of energy.
- ◆ One can also use peak-load pricing for electricity which lowers the capital costs of providing electricity through higher utilization rates.
- ◆ Renewable energy and nuclear energy must also be part of the solution.

Incentives—Appropriate Pricing and Taxation of Energy

- ◆ Pricing must also reflect externalities. Externalities can also be priced in through the imposition of taxes on specific industries and/or products. For example, the price of gasoline, if left to the market, may not reflect the (social) costs of congestion, air pollution and global warming. Thus, a gasoline tax can be justified.
- ◆ Also, for certain investments, the private rate of discount may be higher than the appropriate social rate of discount and thus may require public subsidies or regulation.
- ◆ Wherever possible, the externalities should be internalized so that the total social costs are fully reflected.

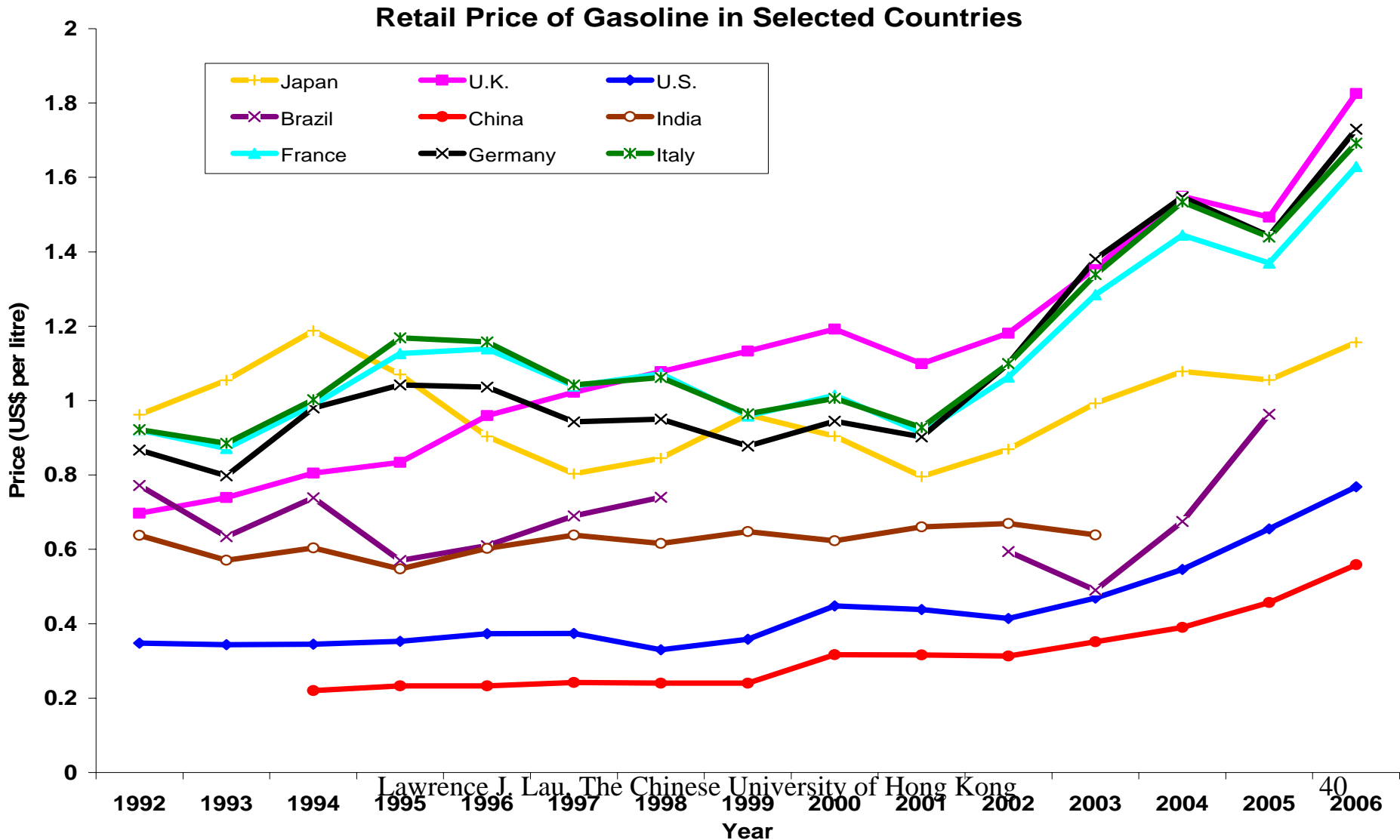
Incentives

- ◆ Incentives for capital cost-operating cost substitution—for examples: better insulation and construction of buildings lead to lower energy consumption for the useful life of the building; energy-efficient light bulbs are more expensive; more durable products; buildings with higher ceiling height per floor for better natural ventilation and reduced demand for air conditioning; solar heating systems. The government can provide credit subsidies for financing these incremental capital expenditures.
- ◆ (For example, triple-paned windows are more expensive but houses equipped with them consume much less energy. Without incentives the developers are likely to opt to use single-paned windows to lower the up-front capital cost.)
- ◆ The government can also mandate energy efficiency standards. For example, the government can mandate double-paned windows in regions where the average winter temperature is below a certain level.

Incentives—The Gasoline Tax and the “Gas Guzzler Tax”

- ◆ The retail price of gasoline in China is among the lowest in the world, even lower than in the United States. China can impose a tax on gasoline that is similar in order of magnitude to that in the Western Europe and Japan.
- ◆ It is a myth that the high price of domestic gasoline deters the development of the automobile industry. Both Japan and Western Europe have long had high retail prices of gasoline and both have prosperous automobile manufacturing firms.
- ◆ China can also impose a gas guzzler tax (license fee) linked to the fuel efficiency of the automobile that penalizes inefficiency.
- ◆ The gasoline tax and the “gas guzzler” tax can reduce the externalities generated by the use of the automobile (e.g., congestion and public health (including loss of productive time), local and global environmental pollution, as well as global warming).

Retail Prices of Gasoline in Selected Countries



The Gasoline Tax and the “Gas Guzzler” Tax

- ◆ The best time to impose and/or raise gasoline taxes and other user taxes is before there are too many automobile owners, not afterwards. It becomes politically difficult or even impossible to do so once the majority of the households own and depend on automobiles for their daily transportation needs.
- ◆ The gasoline tax does not necessarily discourage automobile ownership—it does change the relative demands for different types of automobiles by making it more advantageous to acquire more “fuel-efficient” automobiles. It does have impact on the usage of automobiles, especially if a good alternative mode of transportation is available.
- ◆ Such taxes as the gasoline tax and the “gas guzzler” tax are likely to be progressive in China because only high-income people are likely to have private automobiles. It may therefore be viewed as another means of “redistribution”

The Implementation of the Gasoline Tax and Other Measures

- ◆ The gasoline tax can be flexibly structured so as to maintain the retail price of gasoline (in real terms) at a stable level, independently of the short-term fluctuations in the world price of oil.
- ◆ The proceeds of the gasoline tax can be used to finance public investment in mass transportation. But it can also be done in a revenue-neutral manner, reducing the income taxes of the low income households, providing some compensation for the increase in the retail price of gasoline.
- ◆ Access fees to the central business districts during peak periods, as used in Singapore, are also an option.
- ◆ The promotion of a car rental industry and the encouragement of ride-sharing and car-pooling.

The Dynamic Processes

- ◆ It takes time for the energy-consumption characteristics of the capital stock of both the enterprises and households to change—it can be five years or even longer—one has to await the replacement or retrofitting of the existing capital stock with new investment. But early signaling is essential to the users.
- ◆ Even the announcement of planned future price/tax increases, holding current price/tax constant, can have a substantial impact because they affect directly the expectations and hence the choice of new capital equipment in terms of its energy efficiency in the future.
- ◆ For example, one can announce today an increase in the gasoline tax to take effect three years from now. It will have a large impact as users turn over their stock of automobiles over the next three years. However, it will not have an immediate impact on the owners of existing automobiles, there by smoothing the adjustment processes of both the automobile owners and the automobile industry.

The Dynamic Processes

- ◆ The experience of the oil shocks in 1973 and 1980 showed that while there was little adjustment in the short run, there would be substantial adjustment in the long run, so much so that the oil price had to come back down in the early to mid-1980s.
- ◆ An early announcement or phasing in of a future increase in the gasoline price permits smooth and orderly adjustment by enterprises and households so that any transitional hardship can be minimized.

The Renminbi as a Convertible Currency

- ◆ The exchange rate is allowed to fluctuate within a daily band, originally set at 0.3% in either direction. The band has recently been widened to 0.5%.
- ◆ Revaluation, if any, is likely to continue to be gradual and modest.
- ◆ Full convertibility is likely within ten years although its net impact on the exchange rate is uncertain. Many observers expect the Renminbi exchange rate to fall with the introduction of full convertibility, at least initially, because of the one-off effect of portfolio diversification and re-allocation and because of possible capital flight on the part of the wealthy private entrepreneurs.
- ◆ China has also revised its international trade policy recently and is no longer aiming at a trade surplus or further increases in its official foreign exchange reserves. Going forward, it will try to achieve basically balanced trade vis-à-vis the whole world, removing one source of pressure for appreciation of the Renminbi.

The Renminbi as a Reserve Currency?

- ◆ Acceptance of and willingness to hold the Renminbi has been spreading not just in Hong Kong and in Southeast Asian in general and in other countries/regions as well.
- ◆ The question is whether the Renminbi will be held as a reserve currency by the central banks of other countries/regions.
- ◆ If and when the Hong Kong Dollar is pegged to the Yuan, after the Yuan becomes fully convertible, the reserves held by the Hong Kong Monetary Authority will undergo a shift to the Renminbi from the U.S. Dollar. The shift may not be 100%, but a shift is inevitable if the peg is based on the Yuan.

The Renminbi as a Reserve Currency?

- ◆ Other central banks may decide to hold the Renminbi as an additional reserve currency, both from the point of view of diversification, and also because of the significant trade linkages. Moreover, many East Asian economies, by virtue of their trade surpluses with Mainland China, will have a ready access to Renminbi. All that is required is that their exporters accept Renminbi as payment.
- ◆ The Renminbi is also likely to be more generally accepted in East Asia than a country's own currency so that it can be used to settle other trade surpluses/deficits within East Asia.
- ◆ China will have to decide whether it wishes the Renminbi to be held and used as a reserve currency by other countries. It would mean that China may have to begin running a trade deficit and/or be a major investor in the domestic assets of other countries. Those are the only ways for foreign countries to acquire net positions in the Renminbi.

Concluding Remarks

- ◆ Chinese economic growth during the next several decades will depend mostly on internal factors and be largely unaffected by the policies of other countries or events outside of China (a disruption of the oil supply may be an exception).
- ◆ There are numerous serious internal problems confronting the Chinese economy—however, these problems are not intractable.
- ◆ On the margin, foreign involvement in the Chinese economy will make some, but not a critical, difference; but it can be mutually beneficial for both China and the foreign countries.

Prospects for Economic Growth

- ◆ Chinese GDP per capita will remain low relative to the industrialized economies (G-7) for at least three or more decades.
- ◆ The share of Chinese GDP produced by the non-state-owned sector will rise to 80% in another decade.
- ◆ There is significant complementarity between the Chinese and industrialized economies such as the Group-of-Seven--the industrialized economies do not export anything that China exports (and have not done so for decades) and China does not export anything that the industrialized economies export. It is this complementarity that maximizes the potential gains from free trade between the two sides.