

The Chinese Economy: The Way Forward

Lawrence J. Lau, Ph. D.

Vice-Chancellor and Ralph and Claire Landau Professor of Economics
The Chinese University of Hong Kong

and

Kwoh-Ting Li Professor in Economic Development, Emeritus, Stanford University

The National Bureau of Statistics of the People's Republic of China
Beijing, September 25, 2007

Phone: (852) 2609-8600; Fax: (852) 2603-5230

Email: LAWRENCELAU@CUHK.EDU.HK; WebPages: [HTTP://WWW.CUHK.EDU.HK/VC](http://www.cuhk.edu.hk/vc)

A Preview:

- ◆ China in the World Economy
- ◆ The Impact of the Sub-Prime Mortgage Loan Crisis
- ◆ The Risks of Inflation
- ◆ The Asset Price Bubbles
- ◆ The Renminbi Exchange Rate
- ◆ China and the Environment
- ◆ 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

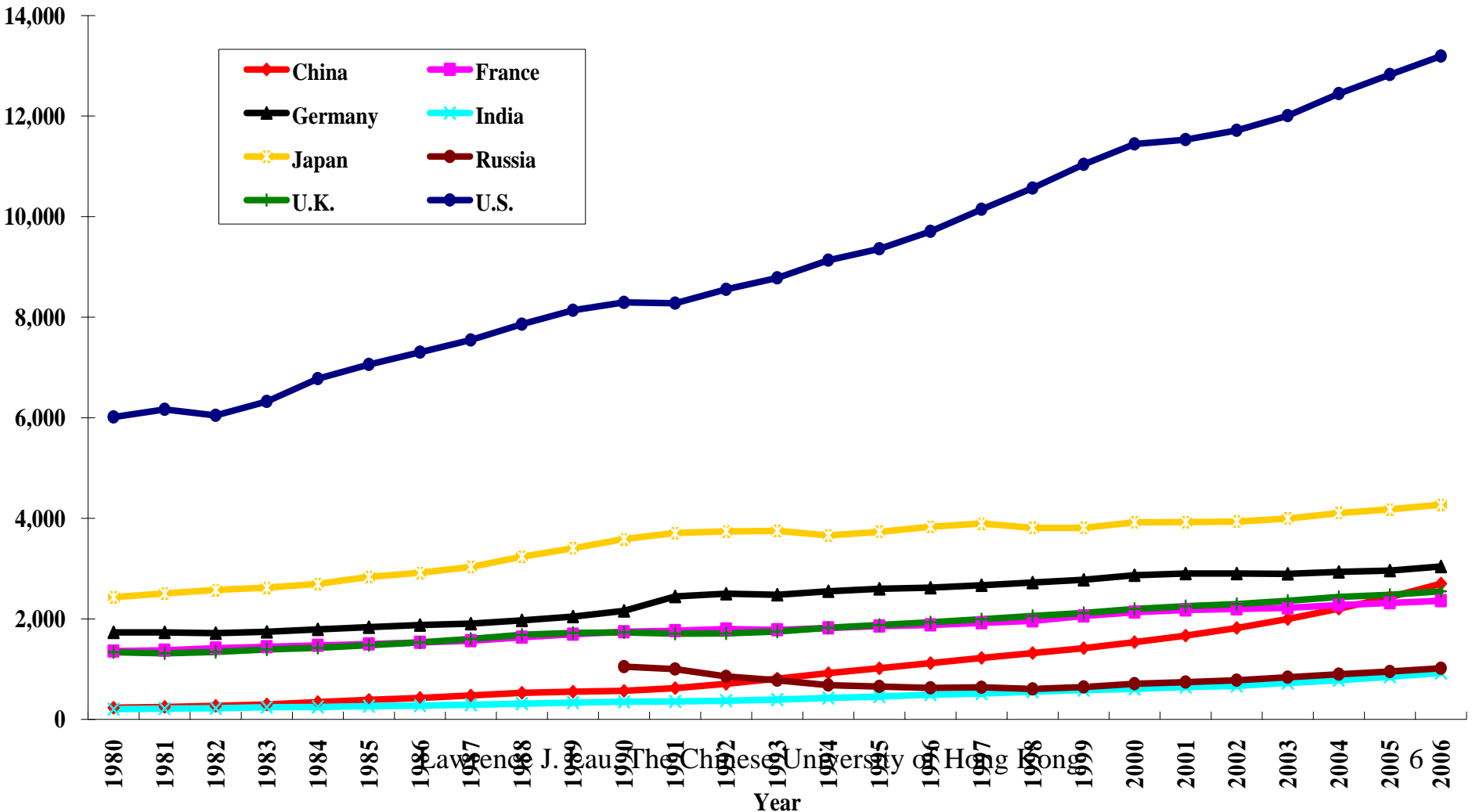
	1978	2006
	US\$	(2006 prices)
Real GDP	180 bill.	2.68 trill.
Real GDP per capita	190	2,026

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

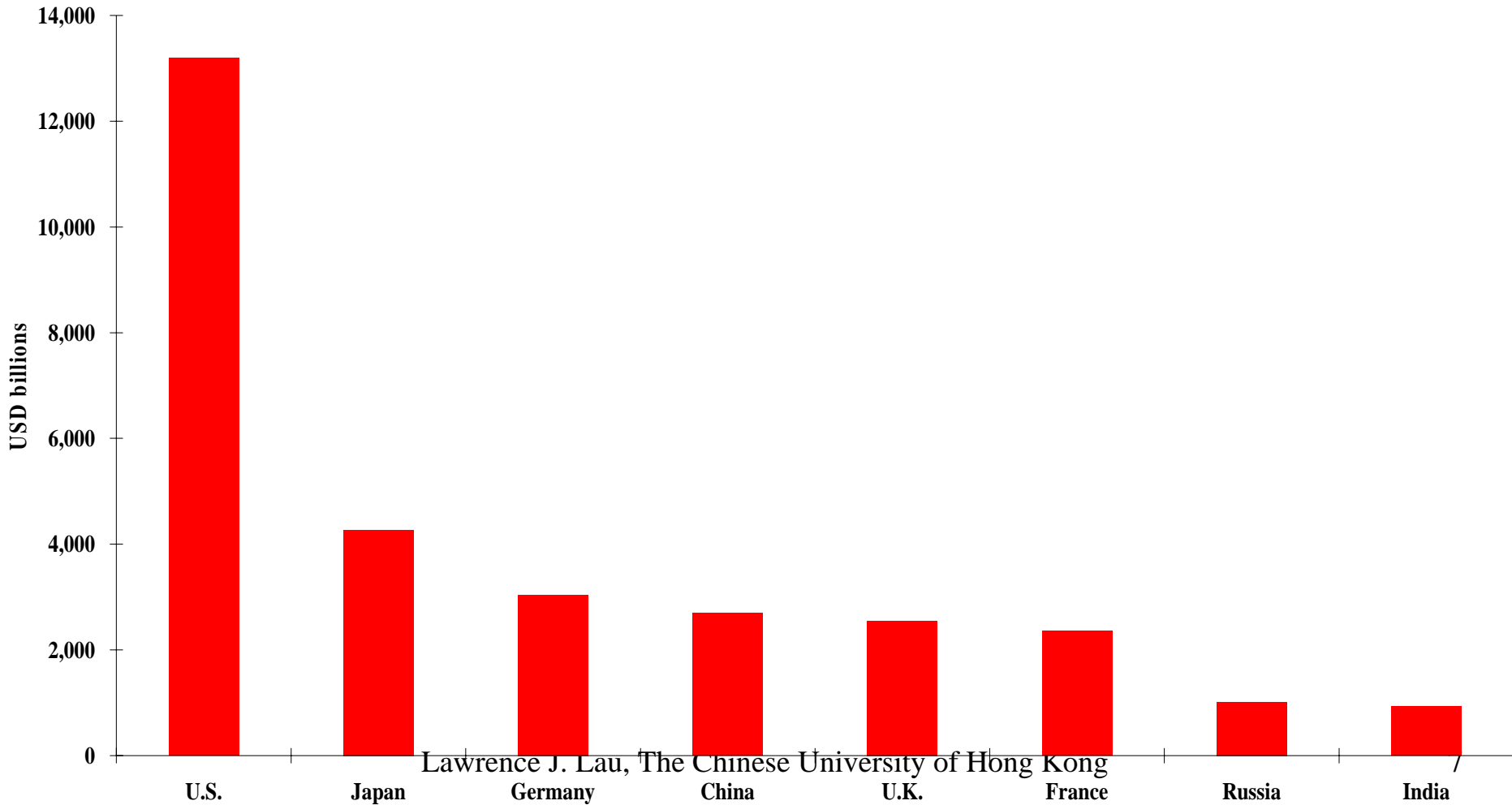
Real GDP of Selected Countries, 2006 Prices

Real GDP of Selected Countries, in 2006 prices



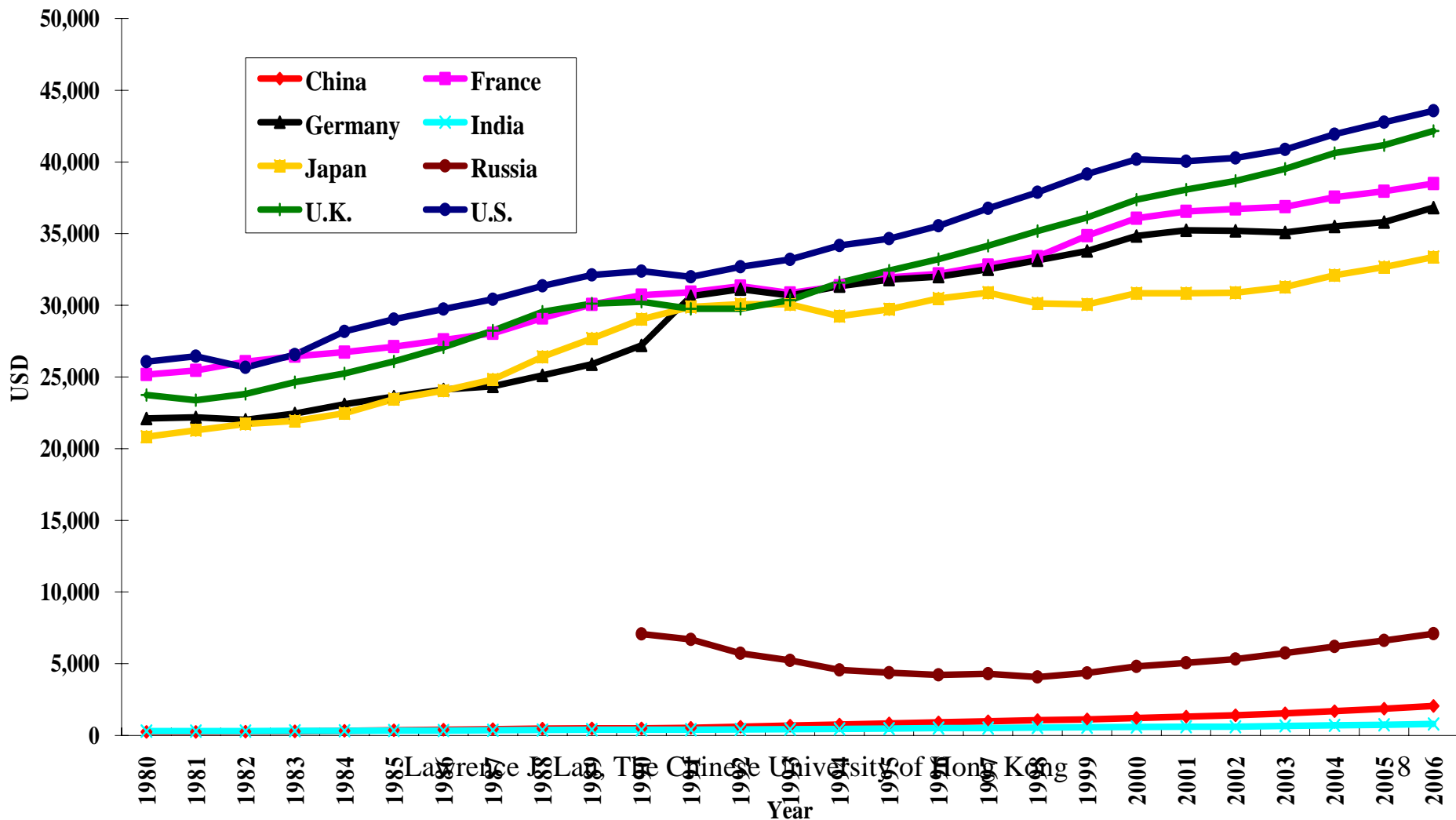
Real GDP of Selected Countries, 2006

Real GDP of Selected Countries in 2006, in 2006 prices



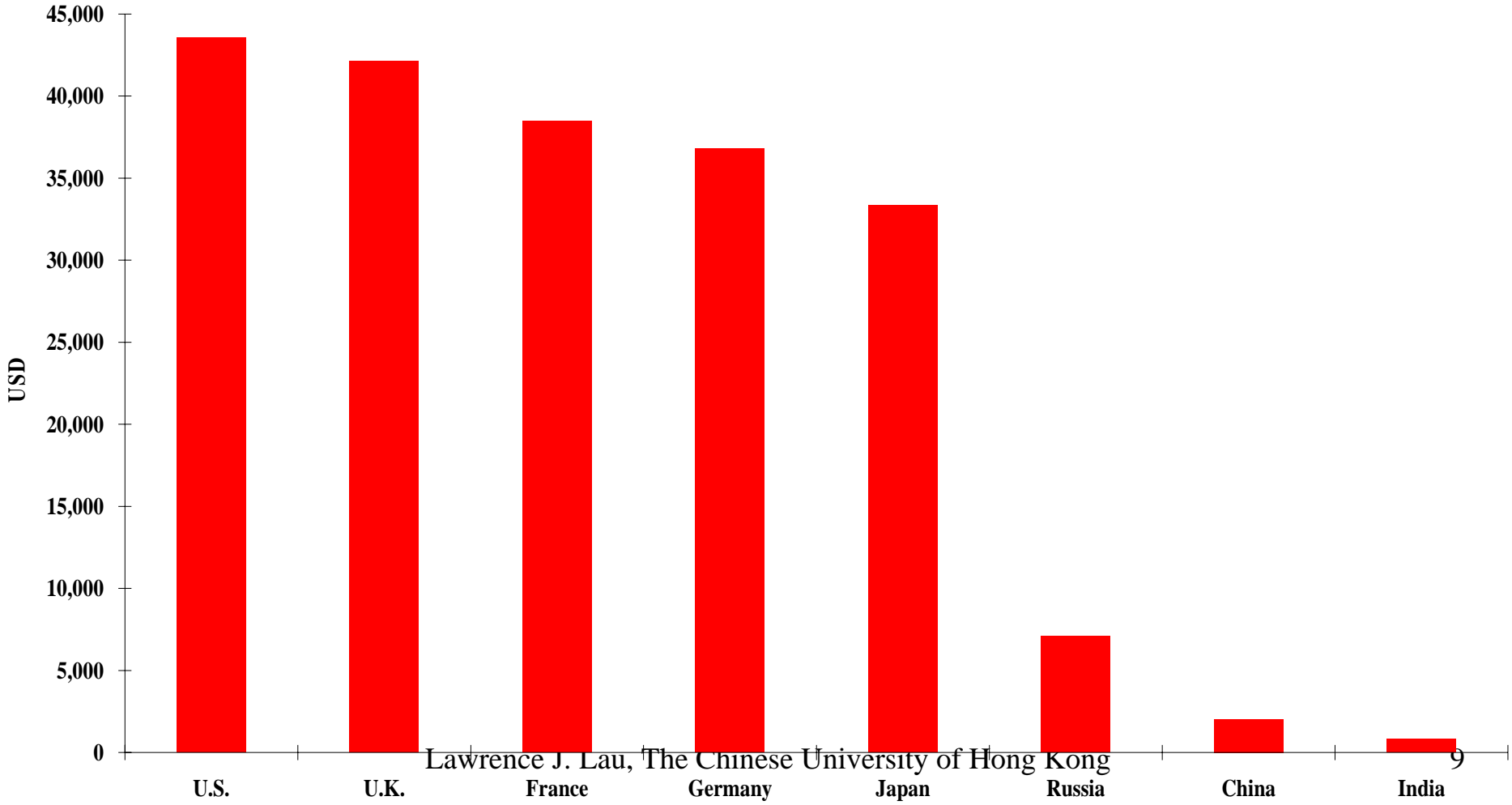
Real GDP per Capita of Selected Countries, 2006 prices

Real GDP per Capita of Selected Countries, in 2006 prices



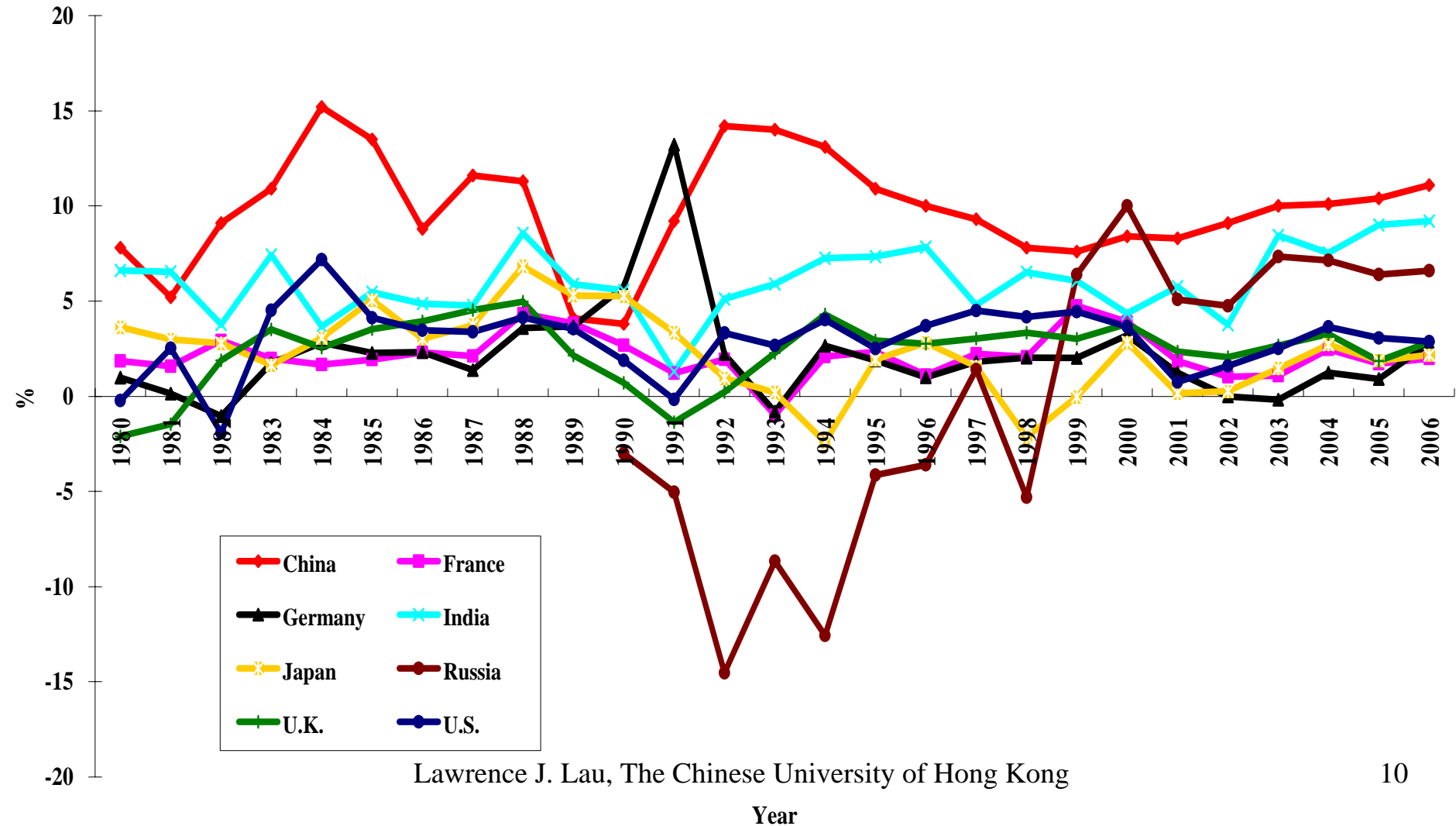
Real GDP per Capita of Selected Countries, 2006

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



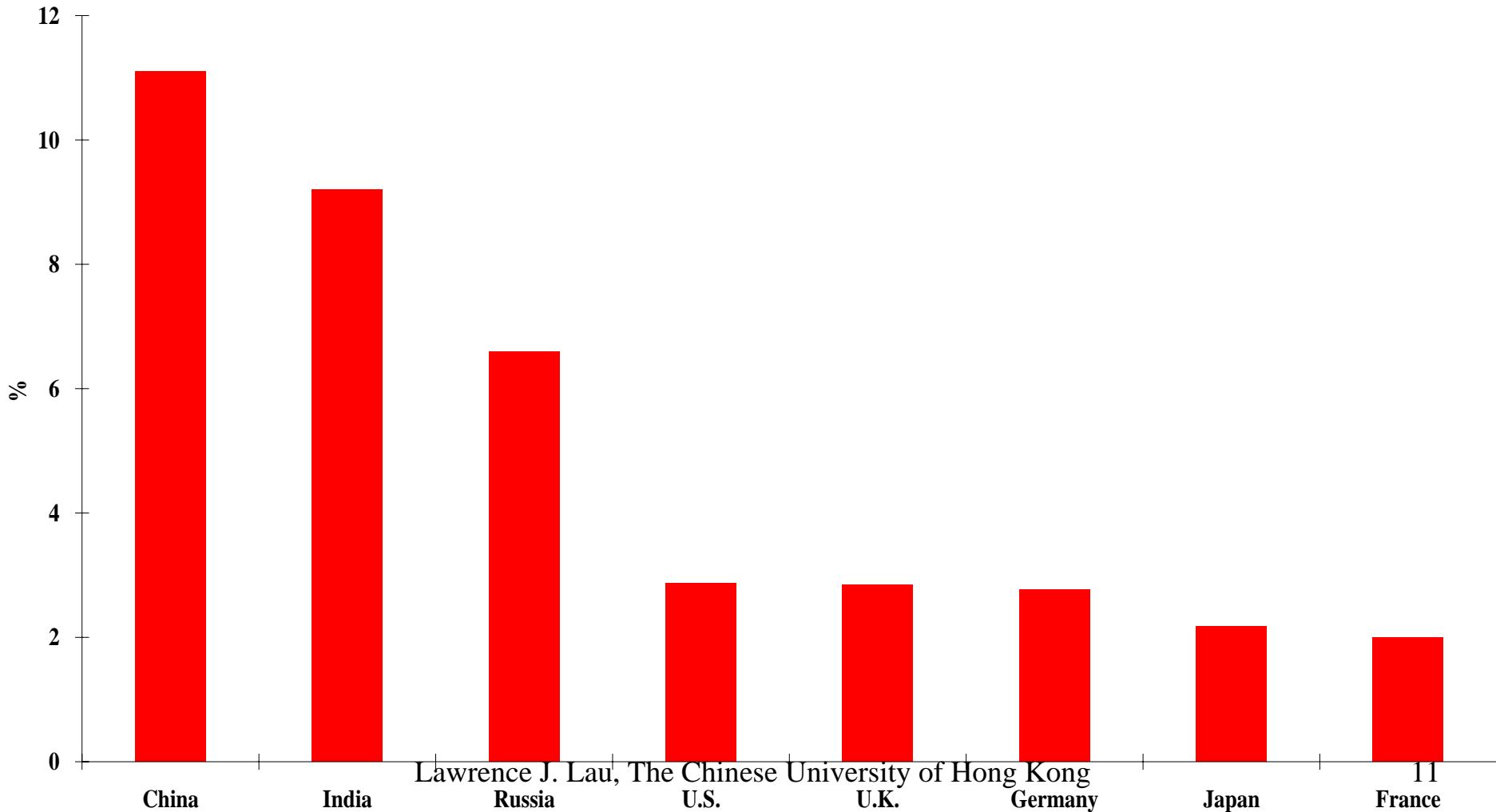
Rates of Growth of Real GDP of Selected Countries

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

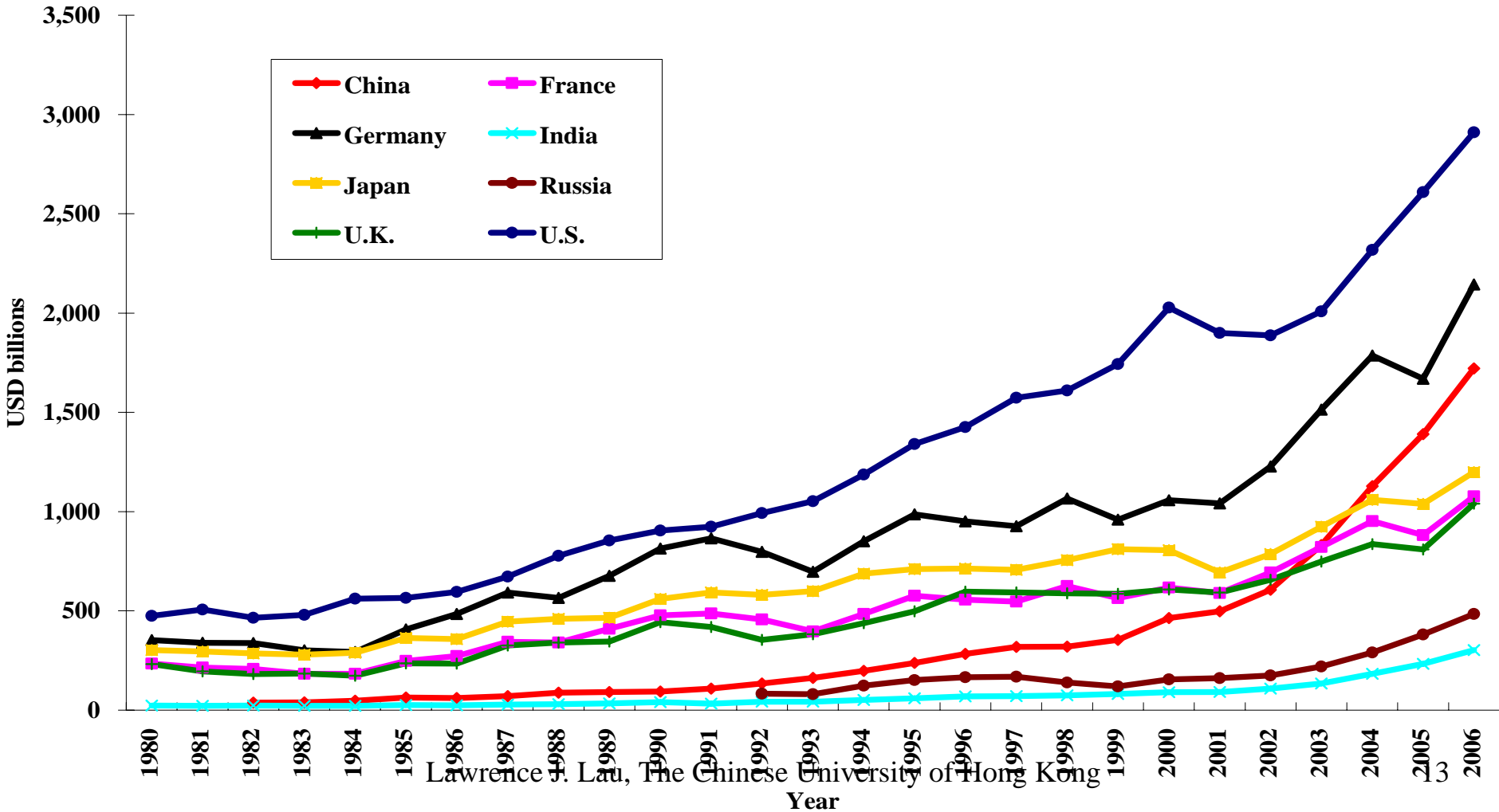


Chinese Economic Growth

- ◆ 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.

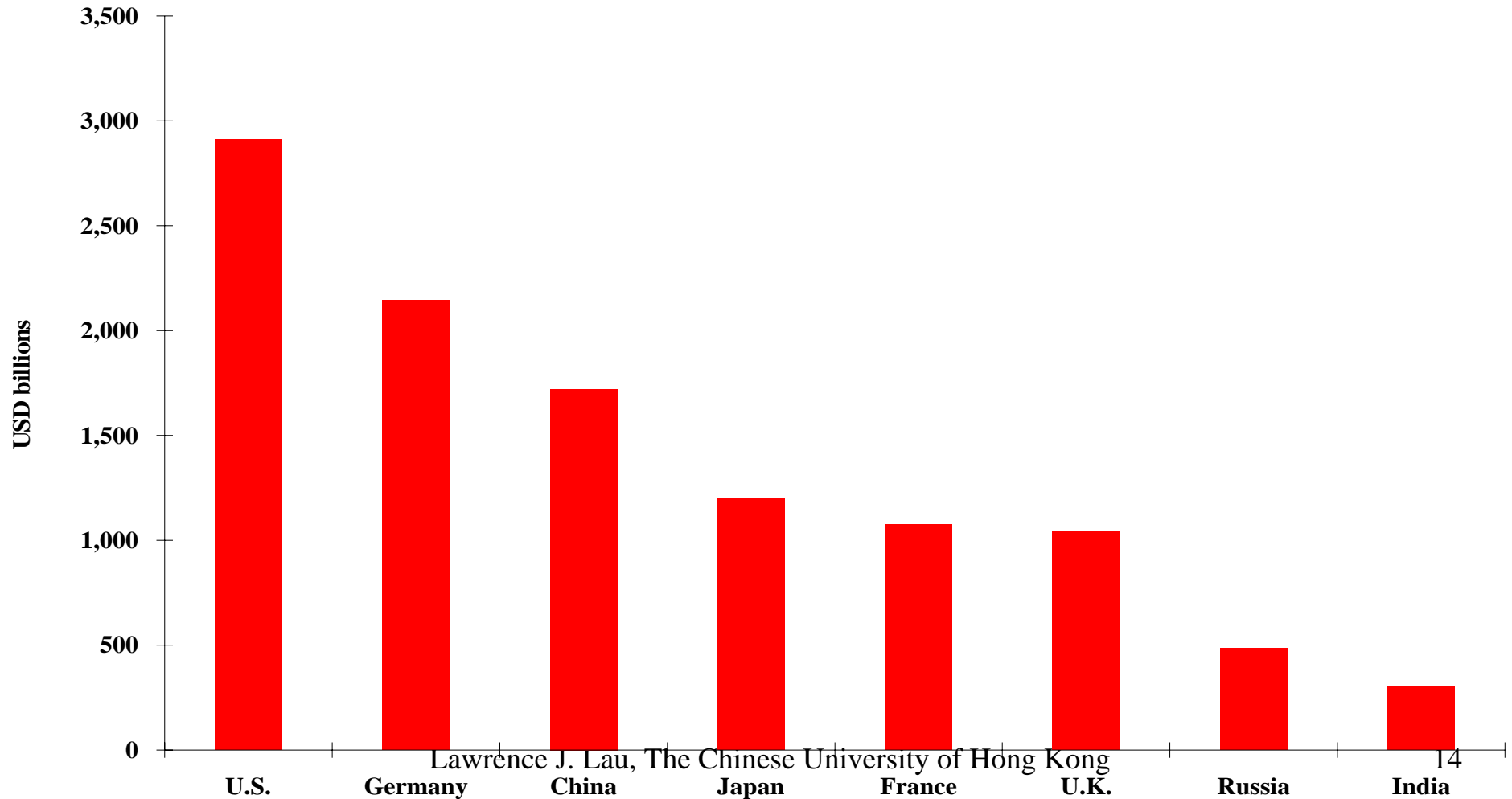
Total International Trade, Selected Countries

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.
- ◆ To realize the full benefits of a large domestic market and a continental economy, China must take steps to outlaw local protectionism within China itself.

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.

The Impact of the Sub-Prime Mortgage Loan Crisis

- ◆ The basic problem is that no amount of financial engineering can transform a poor credit completely into a good credit. So someone or some institution somewhere must be assuming the risk, knowingly or unknowingly.
- ◆ The rise of hedge funds is a contributing factor to the taking of excessive risks because of the structure of compensation. The hedge fund manager shares in the upside in the form of carry interest but not the downside because he or she often has negligible direct investment in the fund. Thus, he or she has every incentive to take higher risks than are in the interests of the investors in the fund.
- ◆ The effects of the sub-prime mortgage loan crisis on the financial markets in the U.S. and Europe have yet to play out fully but the credit markets have already tightened as a result.

The Impact of the Sub-Prime Mortgage Loan Crisis

- ◆ The owners of residential property (and the potential mortgage lenders) in the U.S. no longer expect a continued high rate of appreciation. This will have a significant impact on their demands for a “better” house, for refinancing, and their personal consumption in general.
- ◆ The U.S. demand for imports will likely decline with the reduced household consumption, or at a minimum the rate of growth will decline.
- ◆ Such decline will have a negative effect on the rate of growth of Chinese exports to the U.S. and hence on Chinese GDP, but the effect is expected to be marginal.

The Impact of the Sub-Prime Mortgage Loan Crisis

- ◆ Chinese exports to the U.S. constitute between 8% (Chinese estimate) and 12% (U.S. estimate) of Chinese GDP; however, the direct domestic value added content of Chinese exports to the U.S. is quite low, averaging 17.7%. Thus, the Chinese GDP originating from Chinese exports to the U.S. is only approximately 2.2% (12% times 18% = 2.16%).
- ◆ 2.2% of GDP is reasonably significant and will result in hardships in some localities if completely lost. However, even if Chinese exports to the U.S. falls by 10% (which is considered unlikely), it will cause Chinese GDP to fall by only 0.22%, which is clearly tolerable, especially if the remaining 97.8% of the Chinese economy continues to grow.
- ◆ If the indirect domestic value added of Chinese exports to the U.S. is also taken into account, a 10% decline in Chinese exports to the U.S. may result in a decline of Chinese GDP of no more than 0.5%.
- ◆ However, the impact may be quite severe on certain localities where most of the economy is dependent of exports, e.g., the City of Dongguan in the Province of Guangdong, where the value of exports is greater than the local GDP. Measures must be put in place in these localities to take care of expected lay-offs of workers as a result of the slowdown in export demand.

The Risks of Inflation

- ◆ Inflation is becoming a real risk. Inflation has two components—the prices of goods and the prices of assets, including real estate.
- ◆ Agricultural and food prices depend on the weather and often have their own dynamics because of the necessary period of production—for example, the hog cycle and the Christmas tree cycle.
- ◆ Domestic energy prices have yet to reflect true scarcity prices and negative externalities on the environment and quality of life (e.g., congestion) in general.
- ◆ Inflation must be nipped in the bud. Once inflationary expectations set in, it will take a long time to change.
- ◆ However, price controls typically have little effect and only encourage a black market.

The Risks of Inflation

- ◆ Excess capacity in manufacturing, resulting from too low a cost of capital, have kept prices of goods from rising in China. But enterprises cannot keep on losing money forever. The rise in the price of raw materials, energy and commercial real estate must eventually be reflected in the price level, even though the real wage rate of entry-level unskilled labor has remained relatively stable because of the abundance of surplus labor in China.
- ◆ Paradoxically, raising the prices of energy to reflect their true scarcity value (and the reduction/elimination of value-added tax rebates on exports), will lead to a decline in the exports of some manufactured goods and thereby a decline in the domestic prices of these goods.

The Risks of Inflation

- ◆ Real interest rates for bank deposits are now negative in China. If allowed to persist over time, it may cause massive withdrawals of deposits from the Chinese commercial banks, leading to disintermediation.
- ◆ One solution is for the commercial banks to offer as an option indexed bank deposit accounts, the rate of interest on which is linked to the rate of change of the Consumer Price Index (CPI) during the period the funds are on deposit. Indexed deposit accounts have been previously introduced in China twice--once in 1949 and the early 1950s, and once in 1988 until the early 1990s, both in response to high and accelerating inflation. They both proved to be effective in stopping the flight of bank deposits from the commercial banks and in lowering the expectation of inflation.

The Risks of Inflation

- ◆ But how can Chinese commercial banks hedge against the changes in the CPI? Securities similar to the Treasury Inflation Protected Securities (TIPS) issued in the United States by the U.S. Treasury should be introduced in China. This enables commercial banks to offer indexed deposit accounts linked to the Consumer Price Index (CPI) without assuming the risks themselves. They can simply purchase inflation protected bonds issued by the Chinese Ministry of Finance with the funds they have in indexed bank accounts.
- ◆ Chinese lending rates are becoming negative in real terms, that is, the rate of interest after subtracting off the rate of inflation, is negative. Negative real interest rates encourage moral hazard and hence indiscriminate and reckless borrowing since the borrower has to repay less in real terms than what he or she has borrowed.

The Risks of Inflation

- ◆ Reduction of the rate of growth of money supply should help to slow down the rate of inflation. However, this is of course also related to the net inflow of capital and the exchange rate and sterilization policies of the People's Bank of China.
- ◆ There is clearly excess liquidity in China today. The China Investment Corporation, the new sovereign wealth management agency of China, should be funded through the issuance of Renminbi denominated bonds equivalent to US\$200 billion by the Chinese Ministry of Finance, if not to the public then at least to the commercial banks so as to absorb some of the excess liquidity. China Investment Corporation can then use the proceeds to purchase US\$200 billion worth of foreign exchange from the People's Bank of China. The transaction should then result in the reduction of 1.5 trillion Yuan of liquidity and US\$200 billion of official foreign exchange reserves.

The Asset Price Bubbles

- ◆ Real estate prices have stabilized or begun to decline gradually in many cities in China. However, Beijing may be an exception.
- ◆ There is a crying need for longer-term fixed-rate (as opposed to variable- or adjustable-rate) mortgage loans. Long-term fixed-rate mortgage loans allow home-owners and home-buyers the ease of mind as their interest and principal repayment obligations are fixed and predictable over time.
- ◆ However, since commercial banks do not have access or at least do not have sufficient access to long-term fixed rate deposits, they cannot make long-term fixed-rate mortgage loans without assuming a significant risk of maturity mismatch. The U.S. Savings and Loan Association crisis, caused by these lenders lending long and borrowing short, in the early 1980s is a lesson that should be taken seriously.

The Asset Price Bubbles

- ◆ In order to mitigate the risk of maturity mismatch, a market in mortgage-backed securities should be developed as soon as possible. Institutions such as China Development Bank can bundle qualified mortgage loans and issue tradable fixed-rate bonds backed by these mortgage loans and sell them to long-term investors such as life insurance companies and pension funds. They will play a role similar to Fannie Mae and Freddie Mac in the United States. Creation of such instruments and markets will actually lower the cost of borrowing to home-owners and offer long-term investors an attractive, safe instrument for their investments.

The Asset Price Bubbles

- ◆ To safeguard the quality of these mortgage loans, one should have relatively high equity (down-payment) requirements, reliable third-party appraisals of the value of the property, and rigorous standards on the ability to service the loan. One is not doing the borrower a favour by granting him or her a mortgage loan that he or she is unable to service.
- ◆ Most potential Chinese buyers will have sufficient liquid assets in terms of their own savings so that a ceiling cap on the amount of the mortgage loan, to, say 70% of the lower of the appraised value or sale price of the property, is not likely to cause hardships and may in fact be helpful to buyers to have a constraint on what they can offer for the properties.

The Asset Price Bubbles

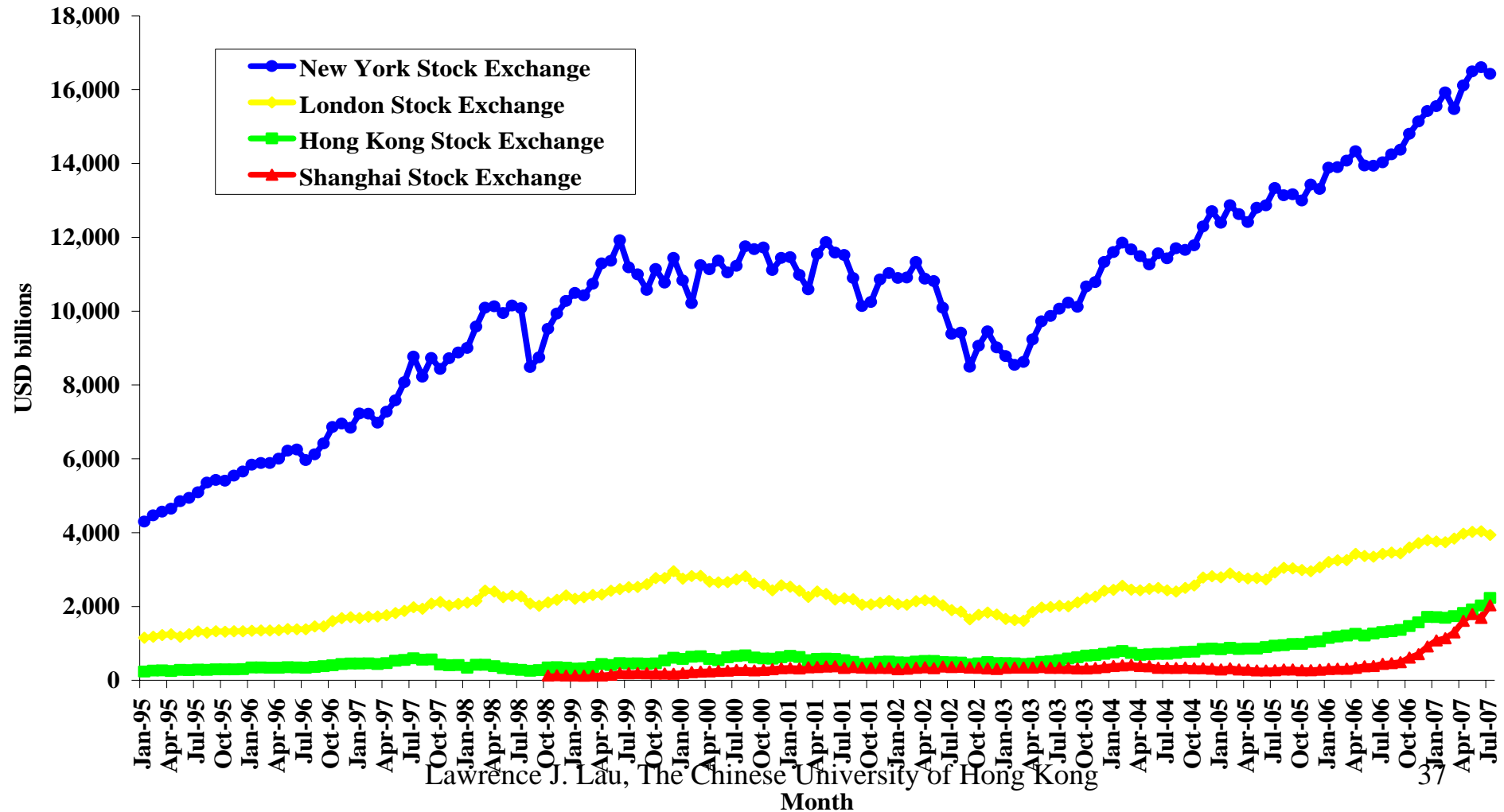
- ◆ Special concessions in the rate of interest and in the equity requirement can be given to mortgage loans on owner-occupied residential property. The experience of Chinese borrowers in Hong Kong and Taiwan indicates that the default risk for such mortgage loans is very low. Even when the price of the property has declined to the point that owner equity is negative, the owner will continue to service the mortgage loan, if for no better reason than that he or she needs a roof over his or her head and would have to pay rent otherwise.
- ◆ Foreign speculative buying of Chinese residential real estate should be discouraged. Mortgage loans should either not be made to foreign buyers and owners or should have a higher equity requirement, e.g., 50%.

The Asset Price Bubbles

- ◆ The price/earning ratios on the Shanghai and Shenzhen Stock Exchanges have reached bubbly levels. It is a law of economic sciences that price bubbles will eventually burst.
- ◆ The current market conditions are eerily similar to those just before the 1929 market crash in the U.S. and the market collapse in Japan in the early 1990s.
- ◆ It is important to realize that the Chinese economy did not owe its success over the last three decades to its stock market. The stock market was mostly peripheral to Chinese economic development and growth. Rather, the stock market owes its boom over the last 18 months mostly to the success of the Chinese economy.

Market Capitalization of Stock Exchanges

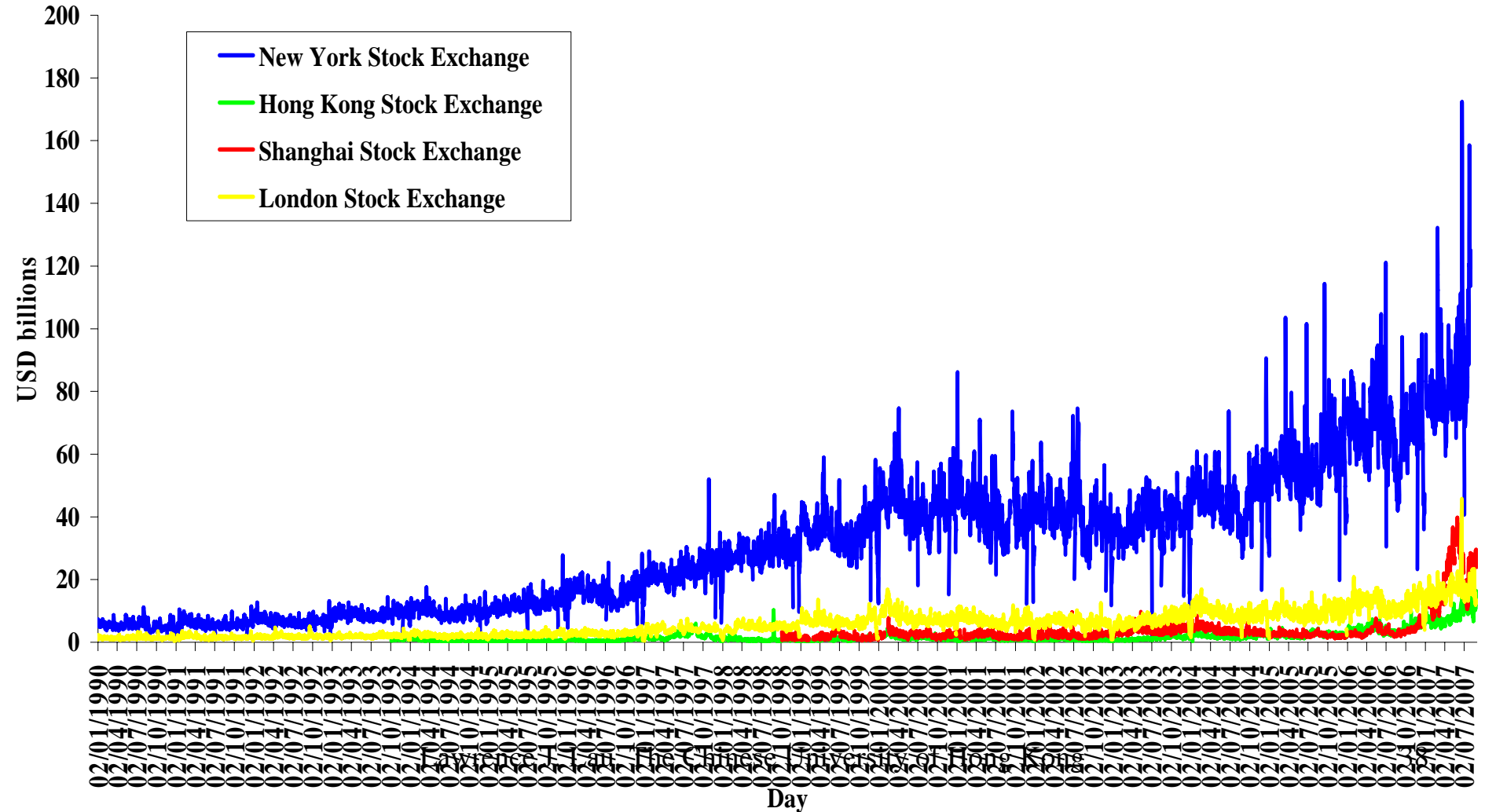
Market Capitalization of Four Stock Exchanges



Lawrence J. Lau, The Chinese University of Hong Kong

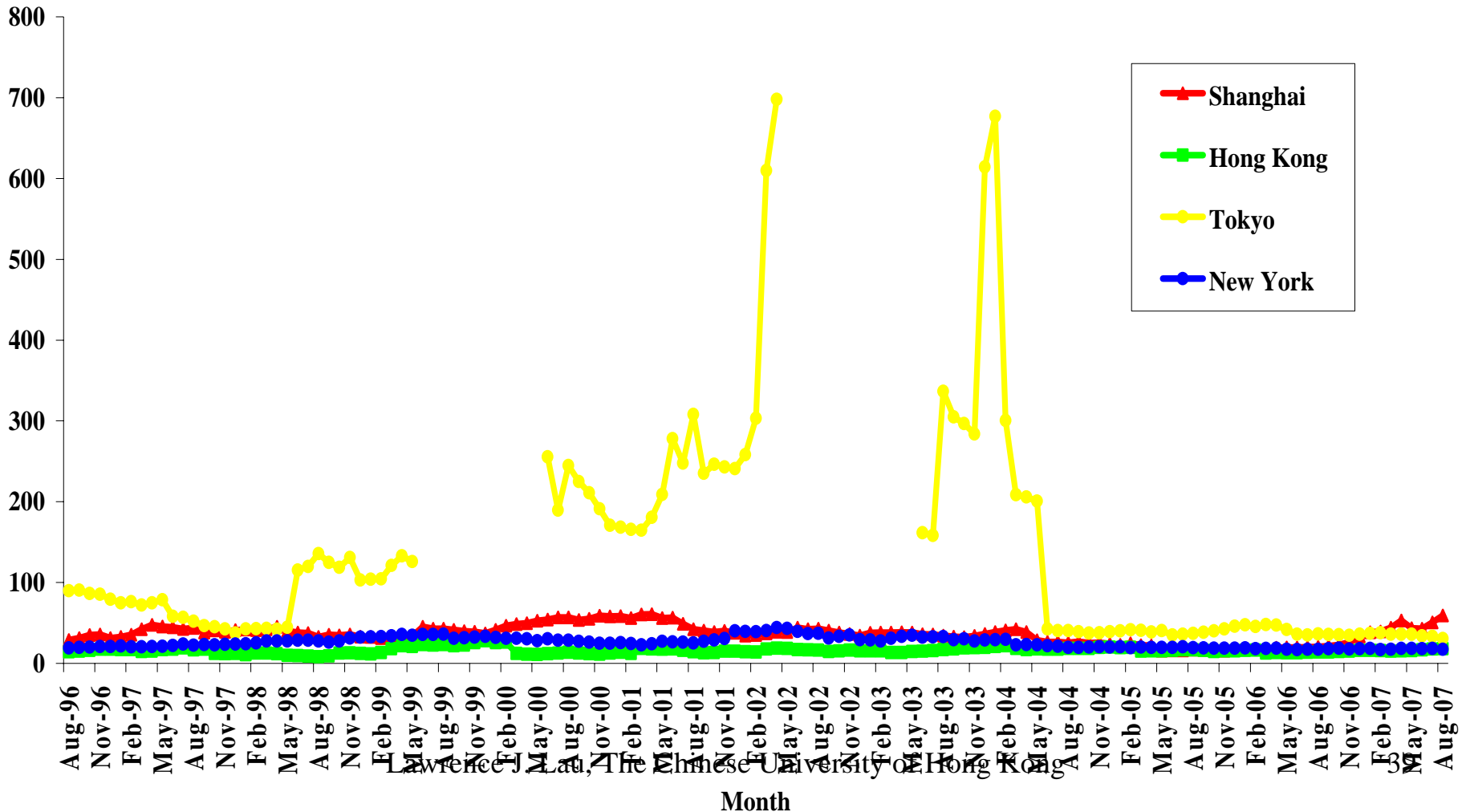
Daily Turnover of Stock Exchanges

Comparison of The Daily Turnovers of Four Stock Exchanges



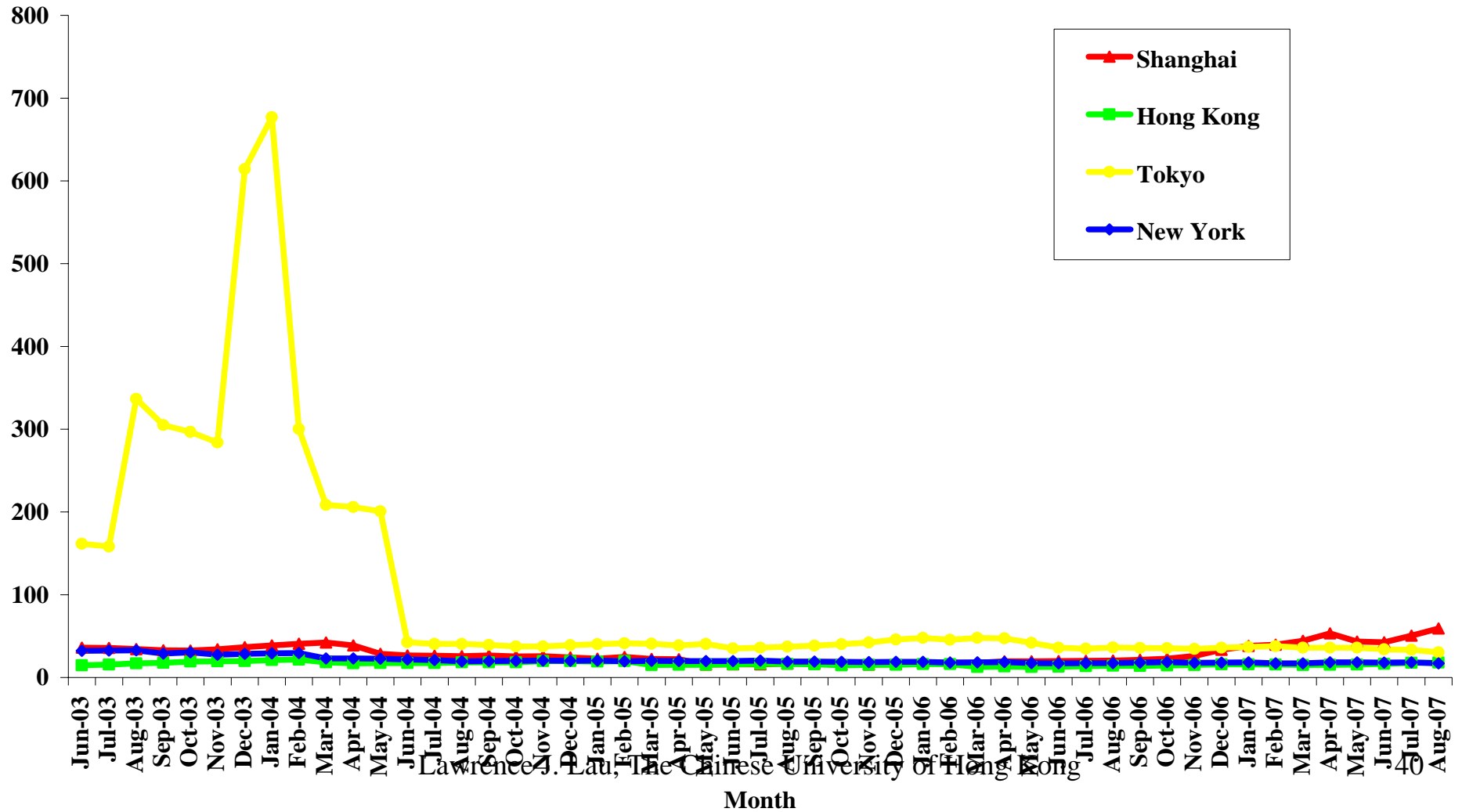
The Price-Earning Ratios of Selected Stock Exchanges

Price/Earnings Ratios of Four Stock Exchanges



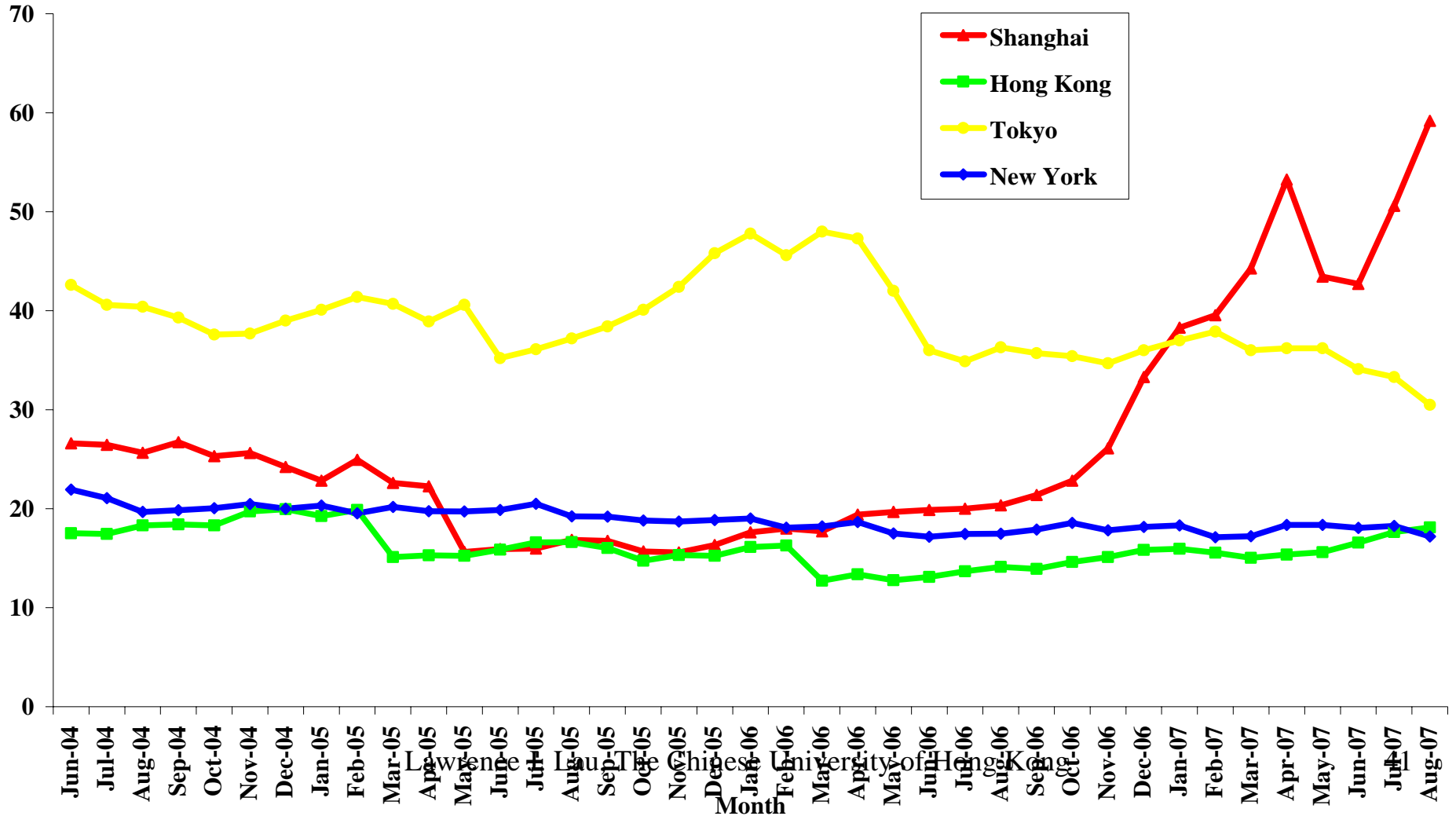
The Price-Earning Ratios of Selected Stock Exchanges

Price/Earnings Ratios of Four Stock Exchanges



The Price-Earning Ratios of Selected Stock Exchanges

Price/Earnings Ratio of Four Stock Exchanges



The Asset Price Bubbles

- ◆ One of the principal problems is that manufacturing and other non-financial enterprises are all speculating in the stock market rather than tending to their core business (不务正业). Stock trading as a direct and indirect source of profit has recently reached levels between 25-50 percent of stated profits for many enterprises. These profits are non-recurrent and unreliable but they do give the impression that the price/earning ratios are still “not too high”. However, it should be recognized that these profits cannot be recurrent and are primarily the result of enterprises buying the stocks of one another and driving and propping the prices up and do not reflect the fundamentals of their core business operations.
- ◆ The state-owned non-financial enterprises should not be allowed to purchase any additional shares beyond what they already own. However, they should not be forced to sell their entire holdings precipitously but should be allowed to divest them in a gradual and orderly manner.

The Asset Price Bubbles

- ◆ The U.S. since the 1929 market crash has not allowed non-financial enterprises and commercial banks to invest in the stock market except for an occasional buyback of its own shares, with prior approval from the Securities and Exchange Commission. Japan has since the early 2000s also disallowed the purchases of shares of one another by non-financial corporations.
- ◆ The State Assets Regulatory Commission should require the publicly listed state-owned enterprises to declare significant cash dividends to their respective shareholders. Since the Chinese Government is the owner of on average 70% of the outstanding shares of publicly listed state-owned enterprises, the cash dividends should generate significant revenue for the Government that can be put back into the budget and used to finance social services such as education, environmental preservation and protection and health care as well as social infrastructure.
- ◆ For the ordinary shareholders, the cash dividends represent additional income that is available for consumption, saving, and other expenditures.

The Asset Price Bubbles

- ◆ The Chinese Government can help by allowing enterprises to deduct actual cash dividends paid to shareholders as a cost just like interest paid to banks on loans, before taxes. This will accomplish a couple of desirable objectives.
- ◆ First, the bias in favor of debt-financing will be removed. Enterprises will no longer find it advantageous for tax reasons to prefer debt financing over equity financing.
- ◆ Second, enterprise income (profit) will no longer be subject to “double taxation”—taxed once at the enterprise level, and again at the shareholder level. Profits paid out as dividends will only be taxed once, at the shareholder level. Moreover, if the Government wishes to do so, it can also exempt the first, say, 5,000 Yuan of cash dividends received each year, from individual income taxation, encouraging households to purchase and hold shares for the long term.

The Asset Price Bubbles

- ◆ Third, the gross revenue to the Government will actually increase—even as it loses the corporate tax on enterprise profits actually paid out as cash dividends, it gains by the additional cash dividends paid and received by the Government, as the 70% majority shareholder of the enterprises.
- ◆ Fourth, if enterprises wish to invest in new projects, it may have to borrow from the commercial banks instead of using its own retained earnings, and hence will be subject to some financial assessment and discipline.

The Asset Price Bubbles

- ◆ Moreover, the cash dividends paid provide a floor for the price of stocks. For example, if an enterprise pays 4 Yuan a year as cash dividends, its price is not likely to fall below 100 Yuan (assuming that the rate of interest is approximately 4%). This is a good time to encourage state-owned enterprises to begin paying significant cash dividends, bring the cash yield to the 4% level. This will provide support for the prices of the common stock of these enterprises if and when the bubble begins to burst.
- ◆ Cash dividends are also a good signal of the enterprise's health. Unless it is really making money and has cash flow, an enterprise will not be able to pay cash dividends. Thus, one can falsify the financial accounts and show profits as much as one wants, but one must have real cash flow to pay cash dividends.
- ◆ Finally, cash dividends make it much more attractive for shareholders to hold the stock of an enterprise for a longer period.

The Asset Price Bubbles

- ◆ The most serious problem faced by the Chinese stock market is the very short average holding period of the shares by the investors. It is typically around a week, which makes it not an investment but a bet or gamble. Encouragement of longer-term holding of common stock should be an important goal.
- ◆ Short-term quick profits in the stock market also encourages the psychology of “free lunch”, of “gain without pain” (不劳而获), which is not sustainable but also undermines the work ethics of the population.

The Asset Price Bubbles

- ◆ Direct and indirect lending by commercial banks and financial institutions for the purchase of common stocks should be tightened up. This is not only to cool down the stock market, but also to protect the small investors. Households can be wiped out completely if they borrow money to buy common stock and the stock market crashes. The solution is to not allow any more common stock to be purchased on credit, direct or indirect. Again the rule can be enforced on the margin, so that shares already bought on credit do not have to be sold immediately to repay the loan. But no new loans will be extended for the purpose of purchasing shares.
- ◆ The simple fact is that trading assets alone does not create new value, does not increase GDP.

The Through Train of Chinese Investment from Tianjin to Hong Kong

- ◆ This is a scheme under which Chinese residents in Tianjin are permitted to purchase securities on the Hong Kong Stock Exchange through commercial banks in Tianjin. It should be viewed as an extension of the programme of “Qualified Domestic Institutional Investor (QDII)”.
- ◆ The Through Train 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 to Hong Kong

- ◆ 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.
- ◆ Eventual division of labour—trading of shares in Renminbi in the Mainland, and in U.S. Dollars in Hong Kong.

The Through Train to Hong Kong

- ◆ Investors may be reluctant to venture outside of China because they may expect the appreciation of the Renminbi, in which case, they may make money in HK\$ or US\$ terms but lose money in Renminbi terms. Since they live in Mainland China gains and loss in Renminbi terms are the most important to them.
- ◆ However, this currency risk may be hedged through the use of tied loans. For example, an investor may deposit Renminbi funds in a Chinese commercial bank in Mainland China and using the deposits as collateral, borrow U.S. Dollars or Hong Kong Dollars to purchase shares in Hong Kong. This way, the foreign currency assets and liabilities are almost balanced. If the Renminbi appreciates, the shares in foreign currency may decline in value in terms of Renminbi, but so will the foreign currency loan.
- ◆ However, as long as the Mainland Chinese investors are purchasing the shares of Chinese enterprises (either H-shares or “red chips”), the prices of these shares will also have captured the effects of any change in the Renminbi exchange rate.

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 is poised to become a major capital-exporter because its domestic savings far exceed domestic investment that can be made profitably.
- ◆ 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.
- ◆ However, China can minimize the inflow of foreign exchange caused by the inflow of FDI by allowing qualified foreign direct investors to borrow Renminbi funds from Chinese commercial banks in China and using it to invest in China, provided that these loans are guaranteed by their ultimate parent companies or collateralized with foreign currency deposits in a Chinese commercial bank.

China as a Source of Savings and Investment

- ◆ It is advantageous for China to allow a qualified foreign direct investor to borrow Renminbi funds to invest in China because that makes it unnecessary for the foreign direct investor to remit foreign exchange to China to exchange into Renminbi. Without the inflow of foreign exchange, the People's Bank of China, the central bank, does not need to purchase additional foreign exchange which it otherwise needs to buy in order to stabilize the Renminbi exchange rate. Without the central bank having to buy the additional foreign exchange through the issuance of additional Renminbi, the official foreign exchange reserves as well as the domestic money supply of China, both of which have already been growing too fast, will not need to be increased.
- ◆ It is also advantageous for Chinese commercial banks to lend to the qualified foreign direct investor because the credit is likely to be better than the state-owned enterprises and if not it will be completely collateralized.

China as a Source of Savings and Investment

- ◆ It is also advantageous for the foreign direct investor because by borrowing Renminbi funds to invest in China, its Renminbi assets in China will be substantially offset by its Renminbi liabilities. It is thus naturally hedged against fluctuations in the Renminbi exchange rate at a minimal cost and for a term much longer than is normally available. For such a foreign direct investor, marking to market of its foreign assets and liabilities will have relatively small effects on its income and loss statements and its financial balance sheet.
- ◆ There may or may not be an interest rate advantage borrowing Renminbi funds but even if there is an interest rate disadvantage it includes the cost of an implicit long-term currency hedge.

China as a Source of Savings and Investment

- ◆ Even though most people expect the Renminbi to appreciate in the near term, it is not necessarily a sure thing in a five- to ten-year time frame (which would be the time horizon for most foreign direct investments). For example, the exchange rate of the New Taiwan Dollar went from 40 per US\$ in the early 1960s to a peak of 24 per US\$ in the 1980s and is now moving around 33 per US\$. The exchange rate of the Japanese Yen started at 360 per US\$ in the 1960s and at one time went above 80 per US\$, fell back to 150 per US\$ and is currently around 110 per US\$. Thus a natural long-term currency hedge can be worthwhile.

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.

The Foreign Exchange Reserves

- ◆ The level of Chinese official foreign exchange reserves, over US\$1.3 trillion, is more than adequate. Further increases in the level of foreign exchange reserves should be limited. This implies that various policy measures must be undertaken to reduce the net inflow of foreign exchange. These include:
 - ◆ (1) Monitoring the approval of foreign direct investment (FDI) and disallowing, for example, individual residential real estate investments;
 - ◆ (2) Alternative methods of financing foreign direct investment (FDI) as discussed above;
 - ◆ (3) Disallowing short-term foreign currency loans (most of which are for speculative purposes) and forcing state-owned enterprises to repay these loans immediately;
 - ◆ (4) Closer monitoring of over-invoicing and under-invoicing of trade flows and transfer pricing;
 - ◆ (5) Allowing outbound portfolio and direct investments (e.g., the establishment of the China Investment Corporation, a sovereign wealth fund);
 - ◆ (6) Allowing the raising of equity and debt by foreign enterprises in China.

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.
- ◆ Convertibility of the Renminbi implies that Renminbi funds can be used to purchase foreign currency either from the market or from the central bank with practically no limit to the amount.
- ◆ 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 Chinese private entrepreneurs.

The Renminbi as a Convertible Currency

- ◆ 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 creation of foreign exchange, 创汇, is no longer an indicator of performance for officials.

The Renminbi as a Reserve Currency?

- ◆ Acceptance of and willingness to hold the Renminbi has been spreading not just in Hong Kong and Macau and in Southeast Asia 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 and whether the Chinese Government would like to see the Renminbi become a reserve currency, to be held by foreign central banks as part of their official foreign exchange reserves.
- ◆ 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.

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

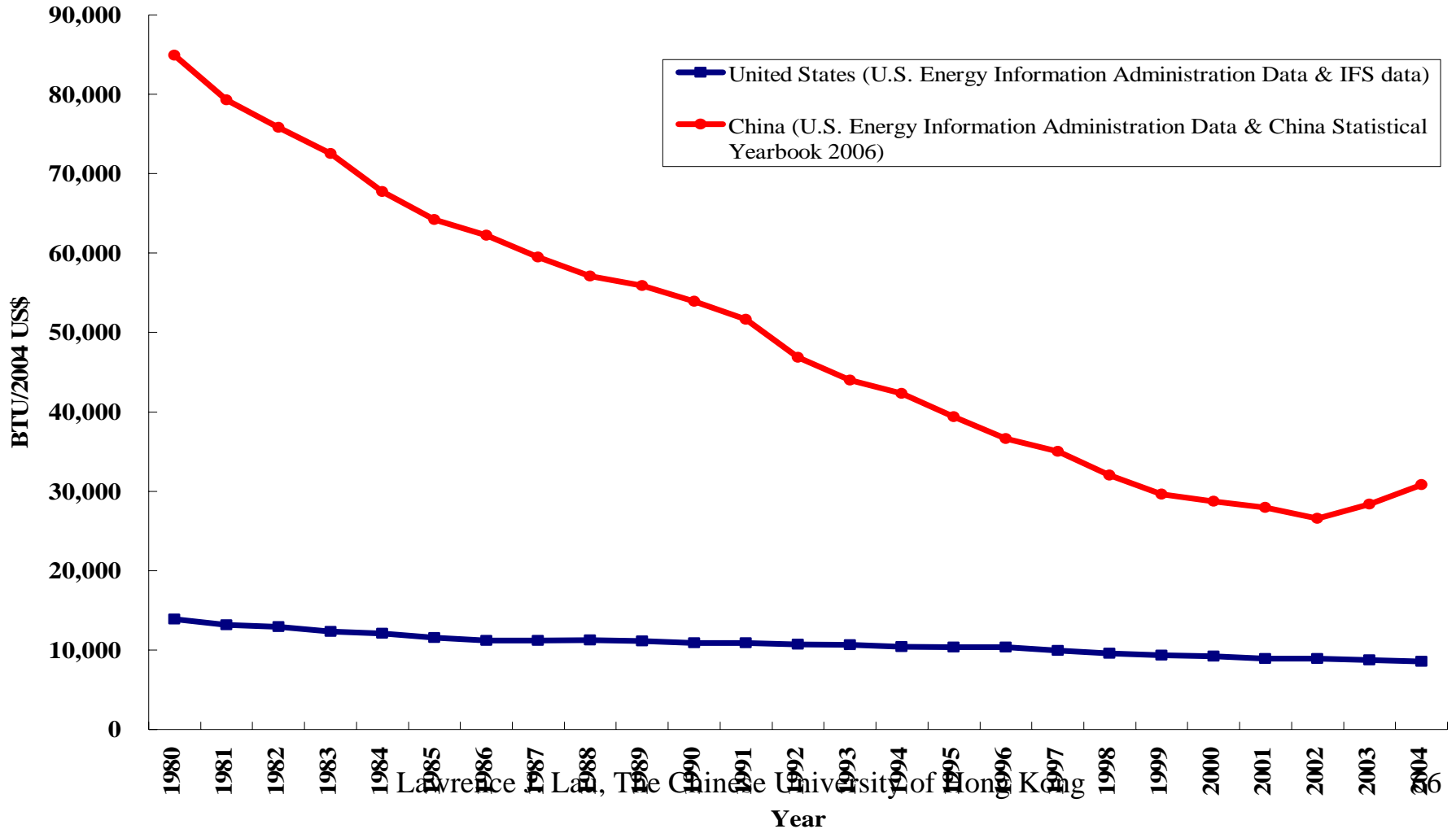
- ◆ Energy consumption in China has been growing more slowly than real GDP until 2002.
- ◆ Energy efficiency, in terms of energy consumption per unit GDP, has actually improved significantly during the past two decades, until the last couple of years.
- ◆ It is, however, still considerably higher than 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.

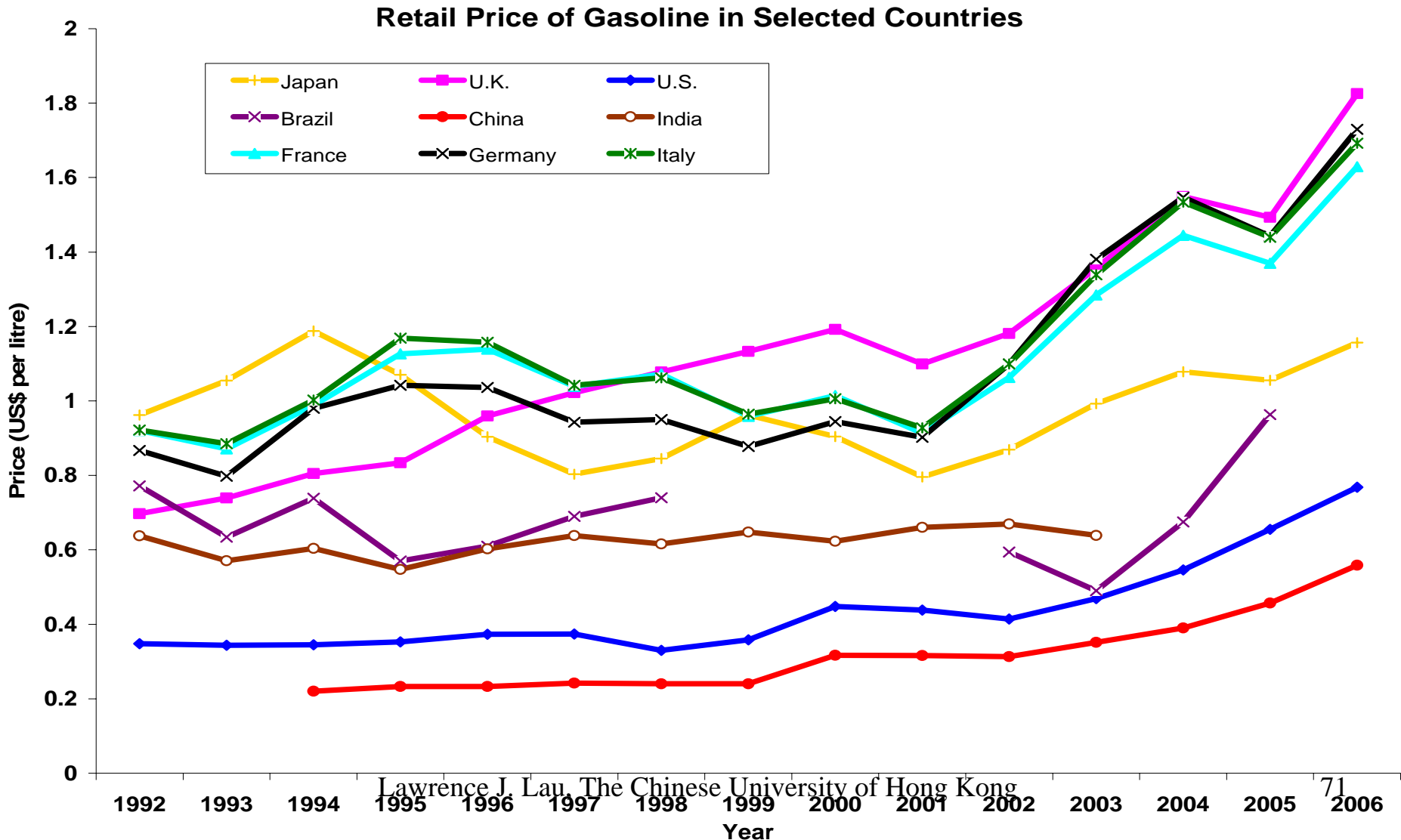
Incentives

- ◆ 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.

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 four 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.