

# The Global Financial Crisis and East Asian Economic Outlook

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# Outline

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- ◆ What Caused the Global Financial Crisis?
- ◆ The Role of the Global Imbalances
- ◆ The Partial De-Coupling Hypothesis
- ◆ Concluding Remarks

# What Caused the Global Financial Crisis?

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- ◆ I would put easy money and regulatory failure on the top of my list of causes of the global financial crisis.
- ◆ But I also want to emphasize the central roles of moral hazard and failure in risk management, and above all, of lessons unlearned from previous financial crises.
- ◆ Irrational exuberance is not uncommon--economic and financial bubbles do occur from time to time, abetted by the heavy use of leverage. Bubbles can be contained and restrained by the suitable and timely restriction of the use of leverage.

# What Caused the Global Financial Crisis?

## Easy Money

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- ◆ The real rate of interest in the U.S. has been negative for quite some time. Low and often negative real rates of interest encouraged borrowing and the use of leverage and fueled the bubble in asset prices, especially real estate prices, in the U.S. and elsewhere.
- ◆ While it is possible that global imbalances also had a role in increasing the liquidity in the United States and thus enabling the recent asset price bubbles that ultimately caused the global financial crisis, I shall show below that the contribution from the Chinese trade surplus was minimal.
- ◆ In fact, China itself has been a victim of the global liquidity with speculative hot money flooding into China beginning in 2003. The inflow of speculative hot money into China has probably accounted for approximately half of the total increase in Chinese foreign exchange reserves in recent years.

# What Caused the Global Financial Crisis?

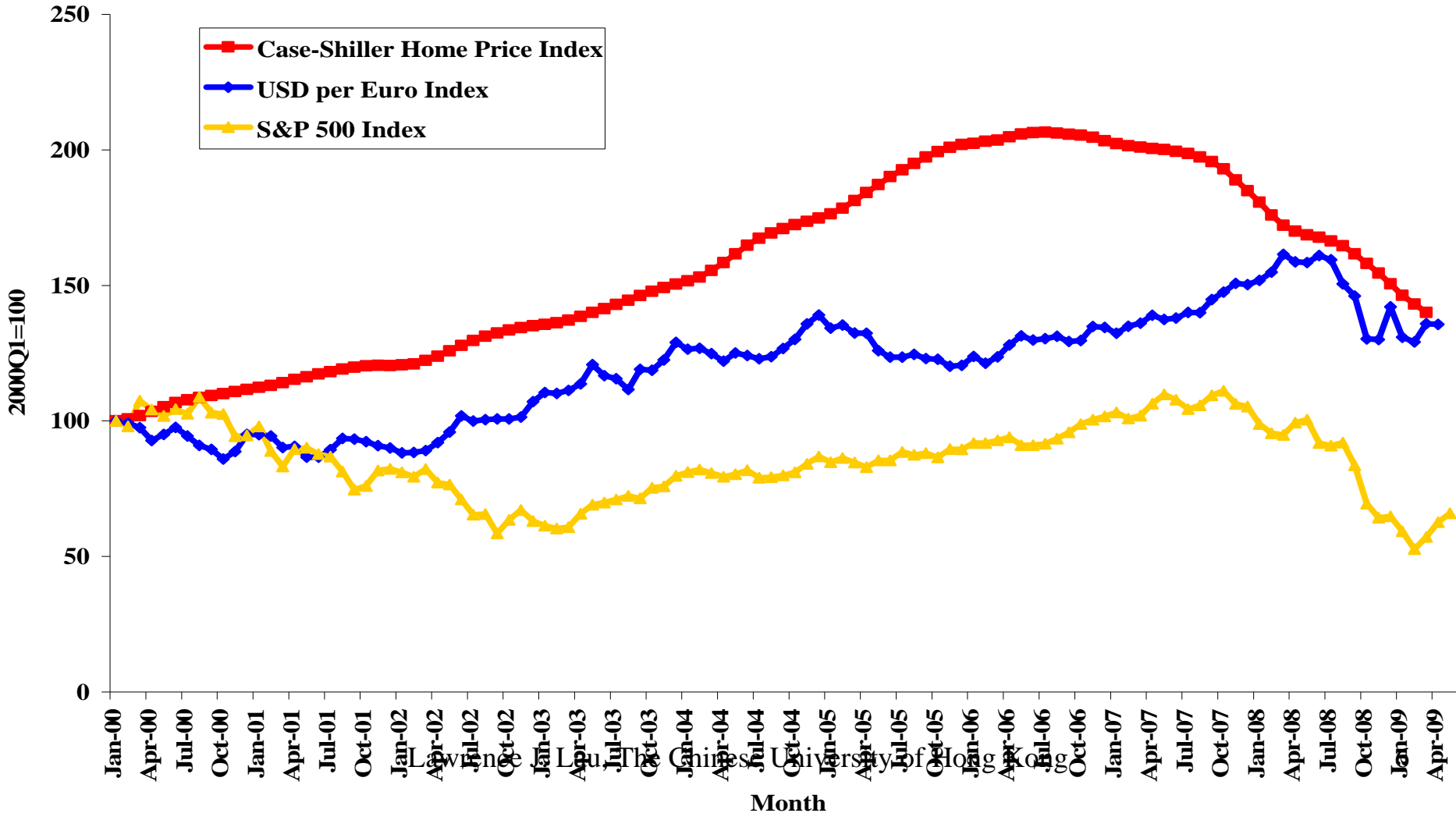
## Easy Money

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- ◆ In the following chart, the Case-Shiller U.S. Home Price Index is presented along with the US\$-Euro exchange rate and the Standard & Poor 500 Index. The Case-Shiller U.S. Home Price Index shows clearly the rise in the U.S. home price beginning in 2000, doubling by 2006 when it reached its peak and began its decline. This coincided with the expansion of sub-standard mortgage loans (including both Alt-A and sub-prime mortgage loans) in the United States.

# Case-Shiller U.S. Home Price Index, US\$-Euro Exchange Rate & the S&P 500 Index

Comparison of Case-Shiller Home Price Index, S&P 500 Index and the Exchange Rate of U.S. Dollar  
(2000Q1=100)



# What Caused the Global Financial Crisis?

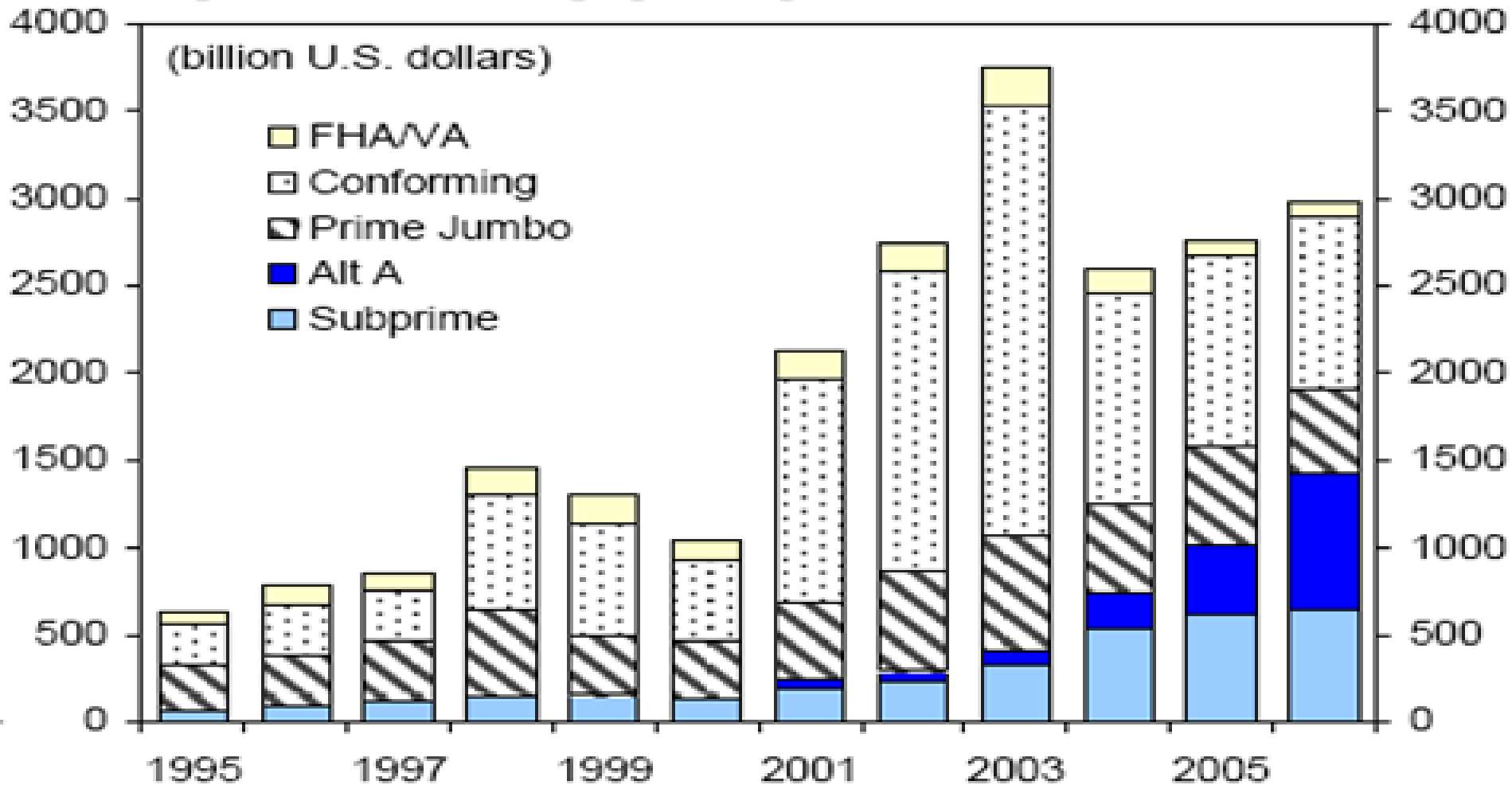
## Regulatory Failure

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- ◆ The sub-prime mortgage loan crisis was possible because of the failure of the regulators to control moral hazard.
- ◆ Originating lenders of sub-prime loans made residential mortgage loans to borrowers with no capacity of repayment, based only on a vague hope of appreciation of the property in the future.
- ◆ They sold these mortgage loans off through securitization with no residual liability. Thus, they had no incentive to make sure that the loans would perform—that the borrower was credit-worthy and that the collateral was worth its value. There was no attempt to check the borrower's credit worthiness or the property's real value, since the mortgage loans would be sold without recourse to the originating lender.
- ◆ The volume of substandard mortgage loans (including both Alt-A and sub-prime loans) began growing in 2000 and by 2006 accounted for almost half of all mortgage loans made in the United States (see the following chart).

# Growth in U.S. Mortgage Originations: from John Kiff and Paul Mills (2007)

Figure 3. All Mortgage Originations



Source: Inside Mortgage Finance.

# What Caused the Global Financial Crisis?

## Regulatory Failure

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- ◆ If the originating lending institution were required to retain some residual liability, e.g., a mandatory buy-back if the loan does not perform during the first three years of the loan, or a holdback of 15 percent of the value of the mortgage loan for three years, contingent on loan performance, or simply required to hold say 10 percent of the mortgage loan itself for the life of the loan, subordinated to the owners of the rest of the mortgage loan, it would have been much more careful and the sub-prime mortgage loan crisis could have been averted. Provisions such as these have been introduced in the recently proposed reform of financial regulation in the United States.
- ◆ Securitisation without any residual liability encourages moral hazard on the part of the originating lenders. Ultimately the purchasers of these sub-prime mortgage loan-backed securities could only rely on the ratings given by the credit rating agencies on these securities. But the credit rating agencies also had no liabilities for mis-rating, but were compensated for providing ratings satisfactory to the issuers of these securities, creating yet another potential moral hazard. We shall also return to this question later.

# What Caused the Global Financial Crisis?

## Regulatory Failure

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- ◆ Off-balance-sheet activities conducted by Enron Corporation were the principal cause of its failure. It ultimately had to recognize on its balance sheet all the losses incurred in its off-balance-sheet activities. The venerable auditing firm Arthur Andersen was also dragged down along with Enron.
- ◆ But off-balance-sheet activities have continued to be allowed—Sarbanes-Oxley Act, which was supposed to prevent a recurrence of failures such as Enron, despite its many costly and intrusive provisions on corporate governance and auditing, failed to address this most important issue at all.
- ◆ Many of the world’s largest banks, Citicorp, HSBC, UBS, etc. suffered huge losses because of their off-balance-sheet activities in the form of “special investment vehicles (SIVs)” or “structured investment vehicles” and have had to take these off-balance-sheet activities onto their balance sheets and write off hundreds of billions (US\$) of bad assets.

# What Caused the Global Financial Crisis?

## Regulatory Failure

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- ◆ If the Securities and Exchange Commission had learned its lesson and forbidden publicly listed companies to engage in off-balance-sheet activities, all of these losses could have been avoided, and the securitised sub-prime mortgage loans would not have found such a ready group of purchasers.
- ◆ Moreover, a great deal of the so-called shadow banking activities had the implicit and explicit support of the major banks but were not regulated nor reflected as potential or contingent liabilities of the banks.
- ◆ The regulators did not learn their lessons and allowed the same mistakes to be repeated in an even bigger way.

# What Caused the Global Financial Crisis?

## Regulatory Failure

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- ◆ In financial crisis after financial crisis, it has always been the high leverage that causes the domino effect. A badly managed but highly leveraged firm collapses, bringing down with it all of its creditors, contractors, suppliers, and counter-parties in its financial derivative transactions, in addition to its own shareholders.
- ◆ Long Term Capital Management (LTCM), a hedge fund, failed in 1998 in part because of its high leverage—at the time it had capital of US\$4 billion but assets of US\$100 billion and even greater potential liabilities.
- ◆ Bear-Stearns and Lehman Brothers had leverage of between 30 and 50 to 1 when they failed.

# What Caused the Global Financial Crisis?

## Regulatory Failure

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- ◆ High leverage not only makes the firms themselves failure-prone, as an ever so slightly adverse development can make them insolvent (that is, turn its net worth negative), but also greatly magnifies the spillover effects when they do fail. They bring down otherwise well managed banks and firms that do business with them.
- ◆ The high leverage also in turn increases the risk of other firms having them as “counter-parties.”
- ◆ The U.S. regulators (Securities and Exchange Commission) decided to allow the high leverage in the securities firms some time in the early 2000s.

# What Caused the Global Financial Crisis?

## Regulatory Failure

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- ◆ Indiscriminate sale of credit default swaps (CDSs) is the principal source of AIG's problems. Credit default swaps are basically insurance contracts. In principle, they are insurance contracts on the bonds, the outstanding obligations, of a firm.
- ◆ However, the insurance companies that sold the CDSs lost sight of the fact that they were selling insurance. They thought they were just taking bets.
- ◆ A fundamental principle of insurance is that the insured must have an insurable interest. Otherwise it would lead to moral hazard. Thus, for example, it is reasonable for someone who owns Lehman Brother bonds, or who is a contractor or supplier owed money by Lehman Brothers, to purchase a CDS from AIG for the amount outstanding. But it is not reasonable for anyone else with no direct exposure to Lehman Brothers, especially if this person has the power to influence the outcome, to purchase CDSs on Lehman Brothers.

# What Caused the Global Financial Crisis?

## Regulatory Failure

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- ◆ It is like a person buying insurance on someone else's house and setting fire to it and collecting the insurance. Or a pirate buying insurance on someone else's ship from Lloyds and then sinking it to collect the insurance. This is the well known problem of moral hazard in insurance that every insurance company should know and avoid.
- ◆ But AIG sold many times more CDSs on Lehman Brothers than Lehman Brothers had bonds outstanding (reportedly more than ten times). Many purchasers of such CDSs were simply gambling on a Lehman Brothers failure. It would have been fine if these purchasers had no influence on whether Lehman Brothers would go under or not. However, many of the purchasers had the power to help force Lehman under, for example, by massively shorting its stocks or bonds, so that Lehman Brothers would be effectively prevented from accessing the capital and credit markets.

# What Caused the Global Financial Crisis?

## Regulatory Failure

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- ◆ The total amount of CDSs outstanding has been estimated to be approximately US\$50 trillion, relative to the total amount of the underlying bonds outstanding of only one-tenth of US\$50 trillion. In other words, the insurance companies collectively sold US\$50 trillion worth of insurance on bonds that are only worth US\$5 trillion.
- ◆ In retrospect, even considered as insurance, the CDSs on Lehman Brothers were not priced correctly. The price of the CDSs did not reflect adequately the probability of its failure, given its high degree of leverage, and moreover did not take into account adverse selection—people buy insurance only because they expect the firm to fail. Furthermore, adequate insurance reserves were not established. That is why AIG is in so much trouble today.

# What Caused the Global Financial Crisis?

## Regulatory Failure

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- ◆ It does not help that the rating agencies did not fulfill their function of properly assessing the risk of the sub-prime mortgage loan-backed securities. One of the problems is that they are paid by the firm they rate, but if the firm does not like the rating it receives, it does not have to pay (thus moral hazard once again). The ratings can therefore be worse than worthless. They mislead potential investors and give them a false sense of security.
- ◆ I have often argued that rating agencies are not very useful ex ante; because if they are really good at discriminating between the good and the bad securities as to their true riskiness, they should be in the asset management business investing real money for clients and making a great deal more money for themselves in the process and not in the ratings business.

# What Caused the Global Financial Crisis?

## Regulatory Failure

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- ◆ In as early as 2007 I noticed that the interest rate spread between junk bonds (and sub-prime mortgage loan backed securities) and U.S. Treasury was less than 100 basis points. I thought that was not possible because no matter how clever one might be in financial engineering, someone had to wind up with the bad risks. The rating agencies might have contributed to this super-thin risk premium on junk bonds with their ratings.

# What Caused the Global Financial Crisis?

## Regulatory Failure

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- ◆ The credit rating agencies need to be regulated. In particular, the moral hazard can be greatly reduced if the firms being rated are not permitted to “shop” the rating, which results from the firm being rated having a choice whether to pay the firm doing the rating.
- ◆ In the past, ratings are most typically used by asset managers to defend themselves when things turn sour—  
”The securities were rated AAA. What could I have done?”
- ◆ One may need to develop a penalty regime for credit rating agencies so that they will have to pay for their over-rating mistakes (just like the auditors).

# The Global Reliance on the U.S. Dollar for International Transactions

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- ◆ The central banks and monetary authorities of many countries hold U.S. Dollars and U.S.\$-denominated assets as part of their foreign exchange reserves because the U.S. Dollar is widely accepted. Two countries trading with each other may not trust each other's currency, so that unless the bilateral trade is completely balanced and a straight barter is possible, they will need to use the currency of a third country which both of them trust. This currency often turns out to be the US\$.
- ◆ The majority of world trade today is denominated in US\$, including the trade in oil.
- ◆ Thus, US\$ reserves held by these central banks and monetary authorities serve as the transaction balances for international trade and investment between countries which do not wish to accept and/or to hold each other's own currencies.

# The Global Reliance on the U.S. Dollar for International Transactions

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- ◆ A normal way for a country to be able to acquire net US\$ balances is for it to run a trade surplus vis-a-vis the United States. Thus, it will receive more U.S. dollars for its exports to the U.S. than it will need to pay for its imports from the U.S. The net excess U.S. dollars will then be sold by the exporter to its central bank for local currency. The central bank will then retain the U.S. dollars in its foreign exchange reserves. It can, if it so wishes, purchase U.S. Treasury securities or other U.S.\$-denominated assets or other assets. To the extent that it purchases U.S. Treasury securities it will become a creditor of the U.S.
- ◆ The United States, on its part, will have been able to import more than it exports, paying for the difference with U.S. Dollars and eventually with U.S. Treasury securities (which it can simply print with little cost).
- ◆ As international trade increases, the need for U.S. Dollar balances for transactions purposes rises. It has been estimated that the amount of transactions balances needed by a country can be six months or more of the value of its imports.

# The Global Reliance on the U.S. Dollar for International Transactions

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- ◆ The U.S.\$ balances held by the foreign countries, whether in central banks or in public and private firms, thus serve a useful function in making international trade and capital transactions possible. These balances have the same relationship to international economic transactions as the domestic money supply to domestic economic transactions.
- ◆ For its contribution to the facilitation of international trade, the U.S. has what is called seigneurage, that is, it can enjoy the benefit of being the issuer of the “international money,” being the banker to the world’s trading nations. It can purchase goods and services internationally using only paper money or paper bonds which it can print more or less at will; in other words, it can purchase with “credit”.

# The Global Reliance on the U.S. Dollar for International Transactions

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- ◆ An obvious question is what happens if the United States stops running a trade deficit and even begins to run a trade surplus. The aggregate US\$ balances in the world will no longer grow but may start shrinking. But this may constrain the growth of world trade, unless there is an alternative currency to enable international transactions or an alternative method of settlement of net balances. This is a question that needs to be addressed within the next couple of years.
- ◆ What are some of the options? A return to the gold standard? Alternative or additional international reserve currencies? SDRs? Regional currencies? World currency? Other possible arrangements?

# Disadvantages of Being an International Reserve Currency

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- ◆ What are some of the disadvantages of being an international reserve currency?
- ◆ First of all, the country that supplies the international reserve currency in general has to be willing to run a trade deficit vis-a-vis the world—otherwise the other economies will not be able to acquire any of the international reserve currency. Countries that are protectionist or mercantilist want to run trade surpluses, not deficits.

# Disadvantages of Being an International Reserve Currency

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- ◆ Second, if a country's currency is widely held around the world as an international reserve currency, there is a risk that the other economies may at some point decide not to hold this currency and dump the currency on the market, putting pressure on the currency to devalue and raising the rate of interest (especially if the country tries to defend the exchange rate). (Unless the country itself owes so much to the other economies that it is considered “too big to fail.”)
- ◆ These are some of the reasons why Japan does not want its Yen to become a major international reserve currency.
- ◆ This is a question that the Chinese Government will need to consider down the road—Should the Renminbi be allowed to become a major international reserve currency?

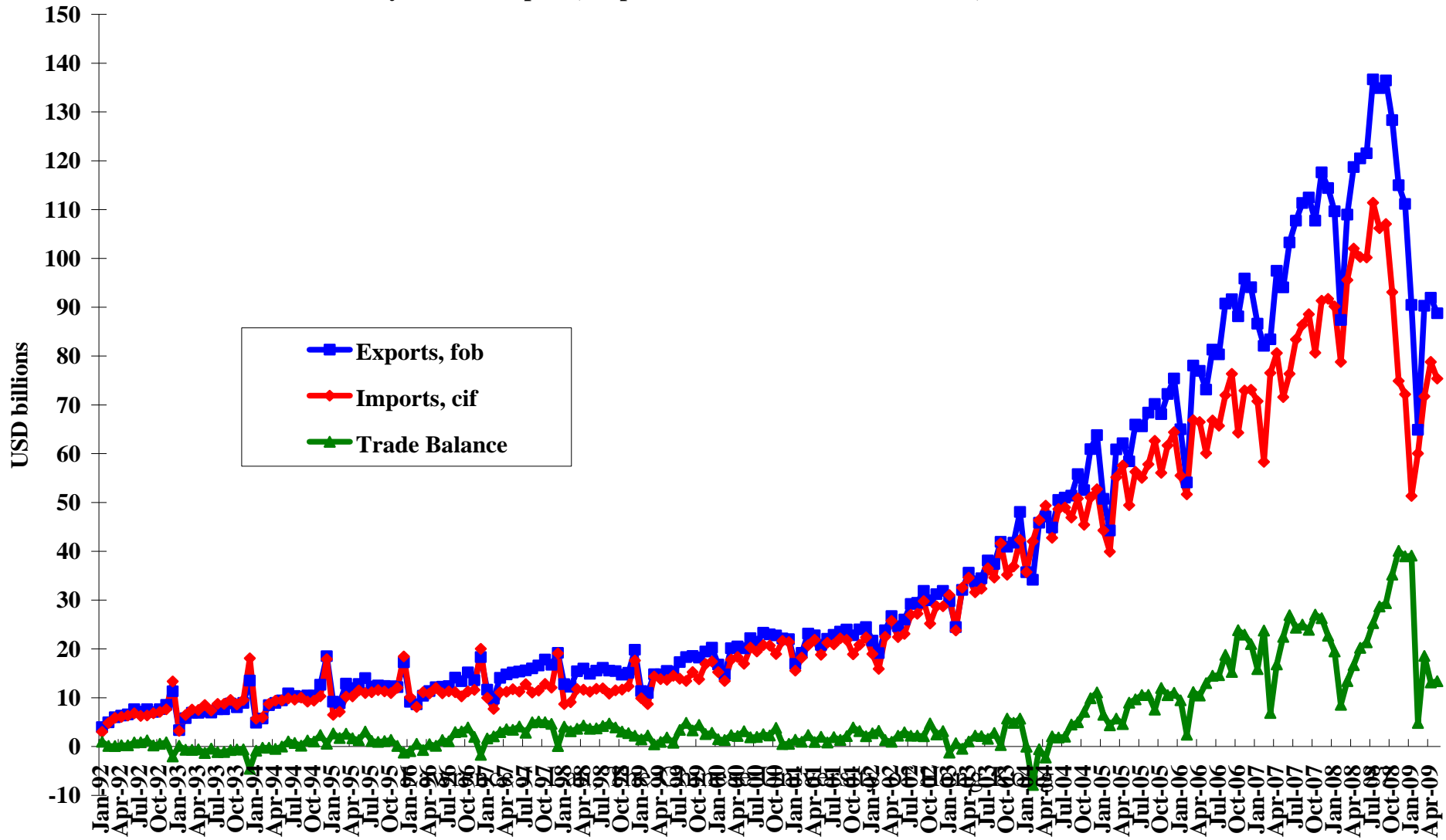
# The Chinese Trade Surplus and the U.S. Housing Price Bubble

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- ◆ The following chart presents data on Chinese exports, imports and trade balance. It is clear that China did not begin to have a significant trade surplus vis-a-vis the world until 2005 (even though it had a significant trade surplus with the United States, offset by a significant trade deficit with the rest of the world).

# Chinese Monthly Exports, Imports and Trade Balance, US\$

Monthly Chinese Exports, Imports and Trade Balance of Goods, in U.S. Dollars



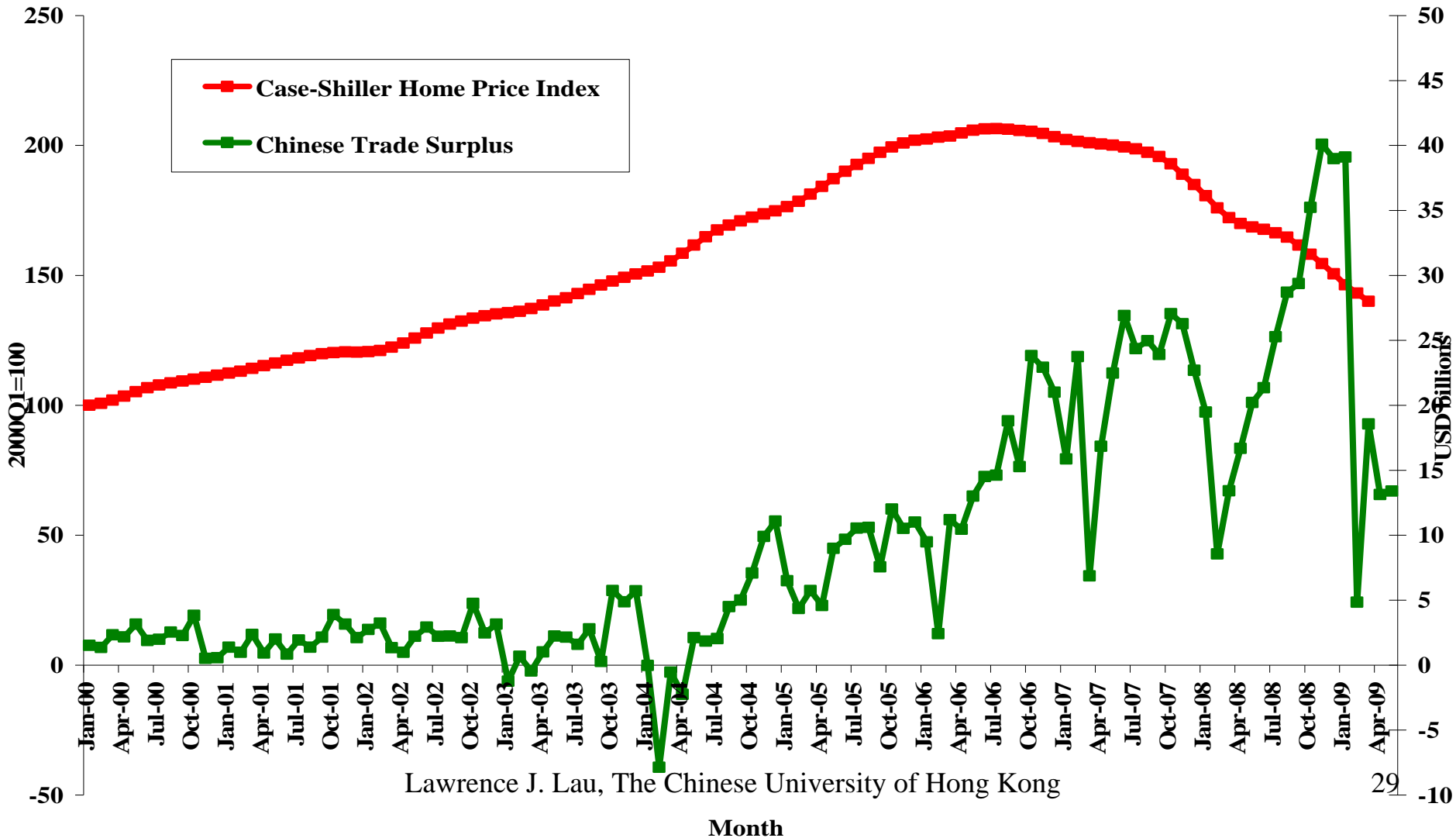
# The Chinese Trade Surplus and the U.S. Housing Price Bubble

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- ◆ The Case-Shiller U.S. Home Price Index began rising in 2000 and reached a peak in 2006. There was a surge in total U.S. mortgage originations beginning in 2001, and in sub-prime (and Alt-A, also sub-standard) mortgage loans in particular beginning in 2003, reaching a peak in 2006 when they began to decline.
- ◆ The Chinese trade surplus vis-a-vis the world began to rise in 2005 and continued rising through 2008. Thus, it could not possibly have been the source of the global imbalances and excess global liquidity back in 2003 or earlier, and hence the growth of the sub-prime and other sub-standard mortgage loans in the U.S. and the subsequent bubble in the U.S. residential housing market.

# Case-Shiller U.S. Home Price Index and the Chinese Trade Surplus with the World

Case-Shiller Home Price Index (2000Q1=100) and Chinese Trade Surplus



Lawrence J. Lau, The Chinese University of Hong Kong

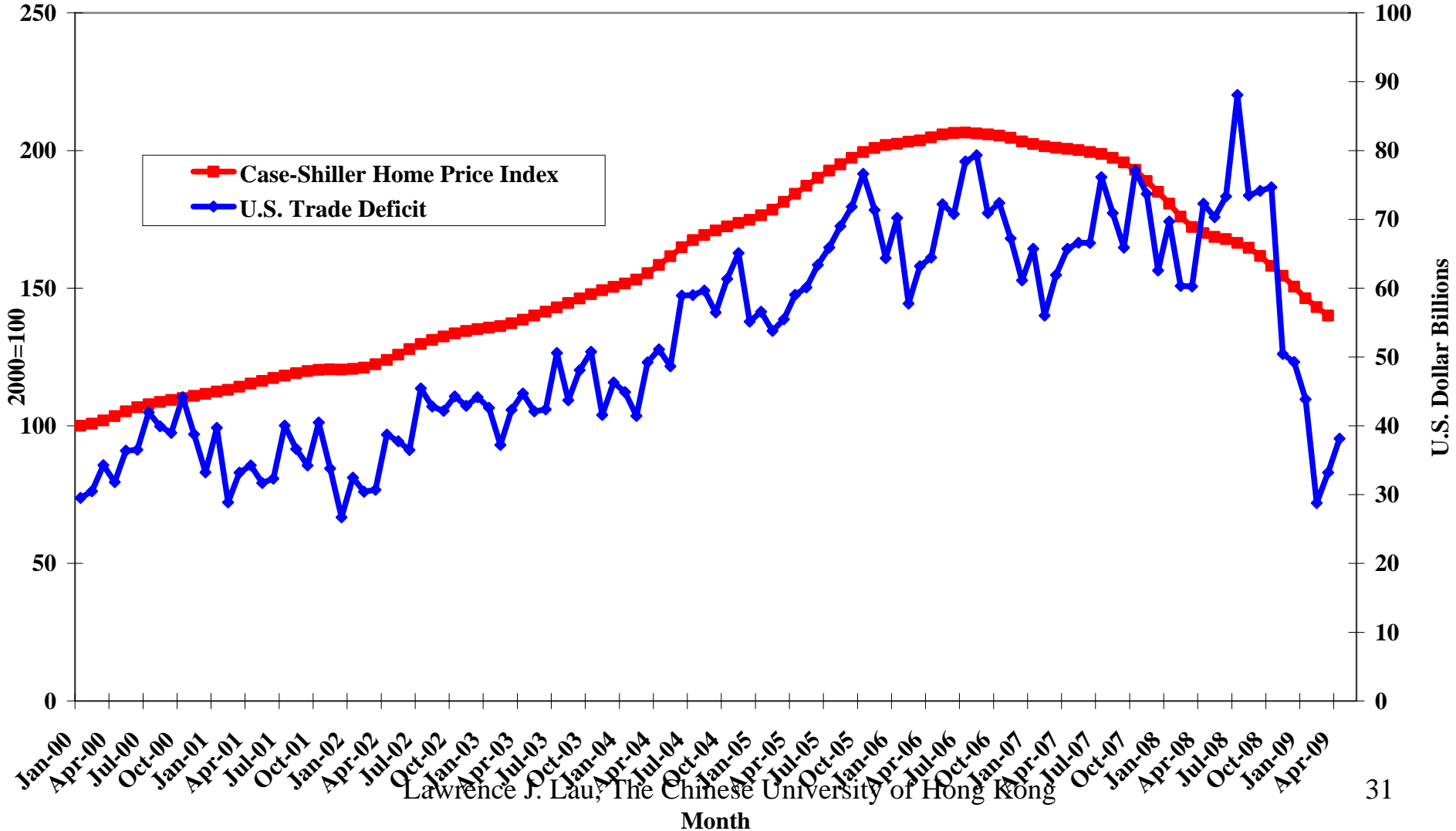
# The U.S. Trade Deficit and the U.S. Housing Price Bubble

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- ◆ However, as the following chart shows, the U.S. trade deficit vis-a-vis the World tracked the Case-Shiller U.S. Home Price Index very well since 2000.
- ◆ It is therefore more likely that the U.S. Dollar balances held by foreign economies other than China that resulted from U.S. trade deficits were recycled into U.S. Dollar denominated bonds, thus driving down the U.S. rate of interest and enhancing liquidity in the U.S., which in turn fueled the real estate price bubble.

# Case-Shiller U.S. Home Price Index and the U.S. Trade Deficit with the World

Case-Shiller Home Price Index and U.S. Trade Deficit vis-a-vis the World



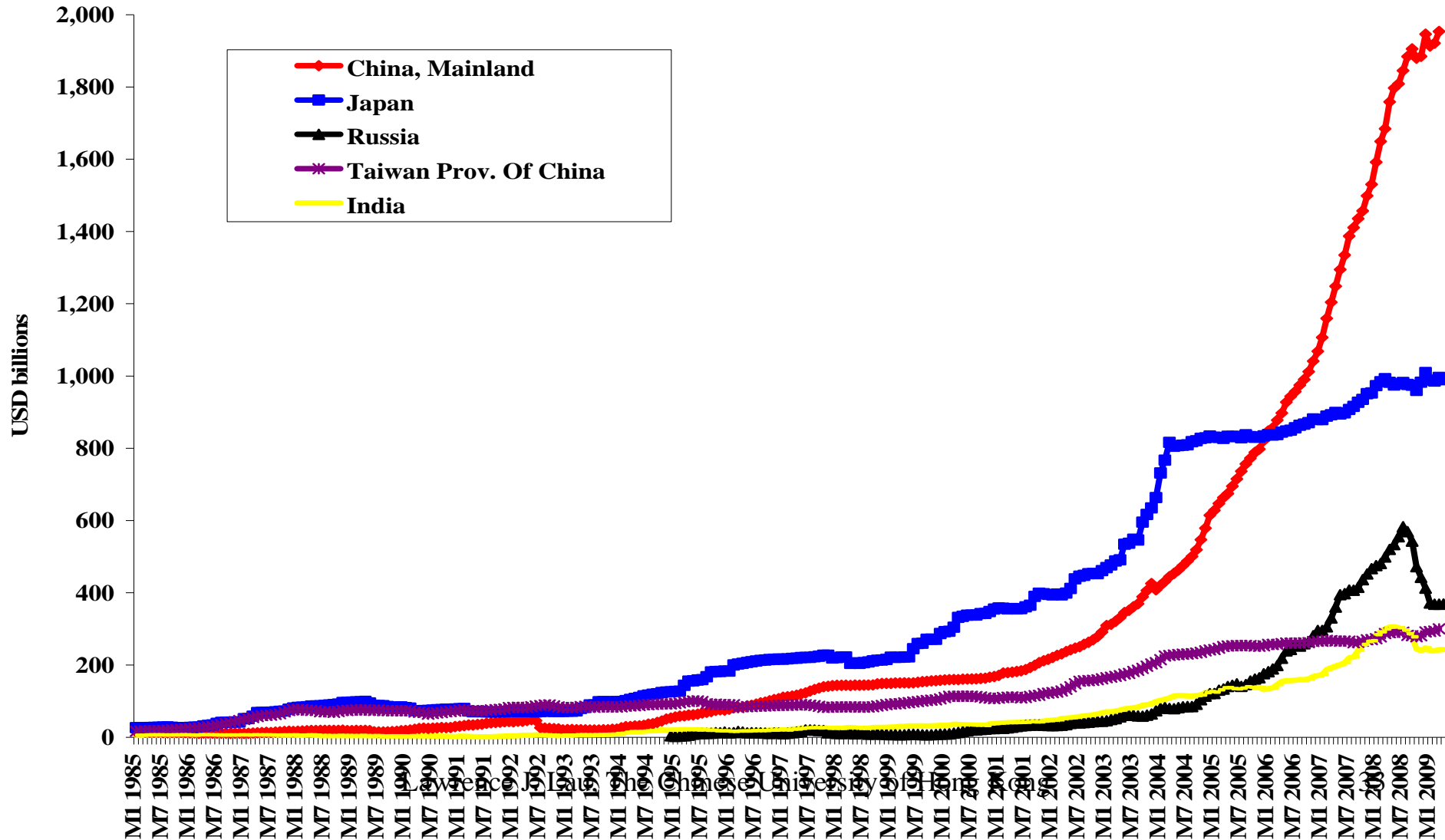
# Foreign Exchange Reserves and U.S. Treasury Securities Owned

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- ◆ The following two charts show the foreign exchange reserves and U.S. Treasury securities owned by selected major central banks.
- ◆ It is clear that the level of Chinese official foreign exchange reserves was lower than that of Japan until 2006. Moreover, Japanese holding of U.S. Treasury securities was consistently and significantly larger than that of China until 2008. This provides further evidence that the China could not have caused the global imbalances that caused the global financial crisis--that these imbalances were caused by economies with chronic large trade surpluses with the rest-of-the- world such as Japan and the oil-exporting countries of the Middle East.

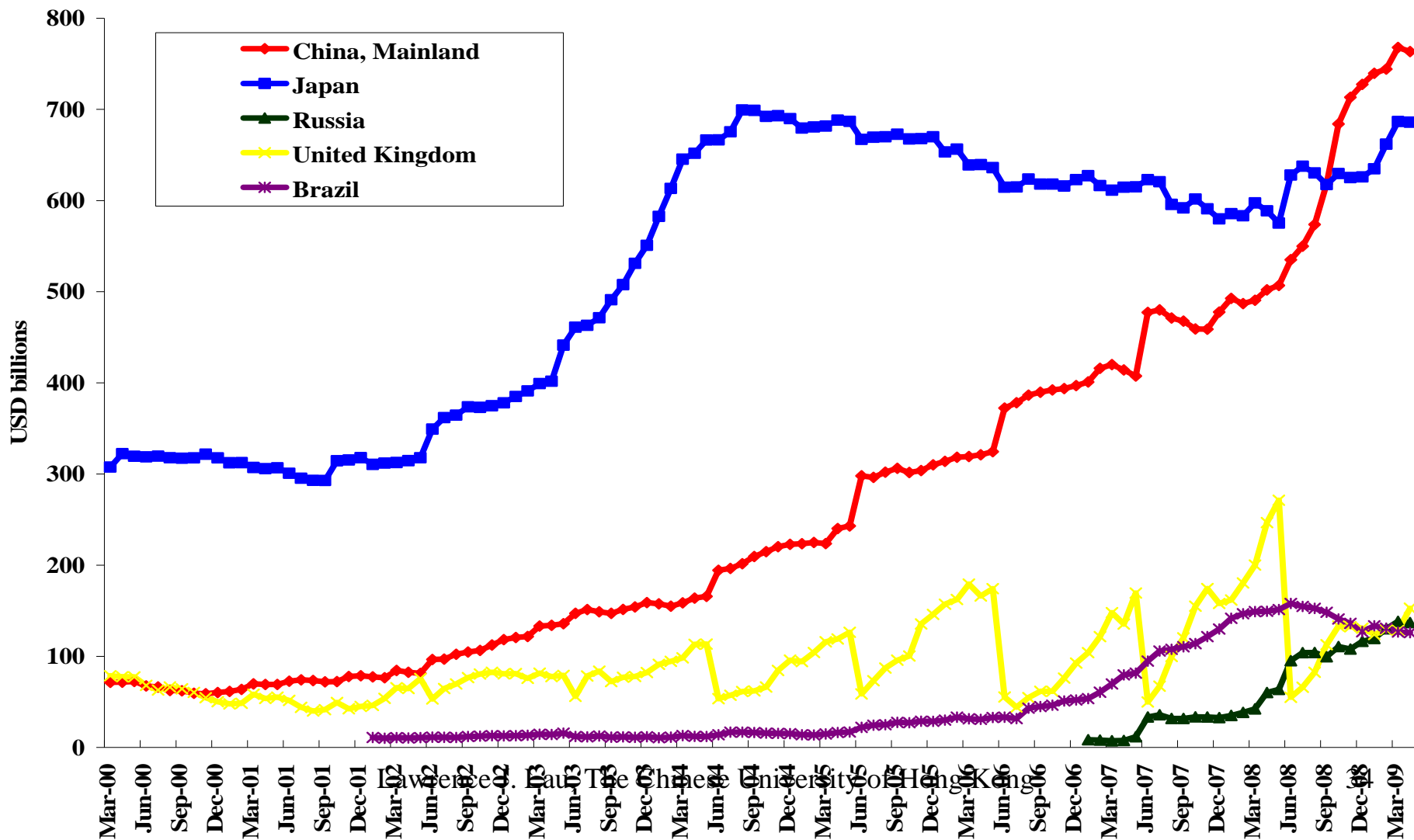
# Total Foreign Exchange Reserves minus Gold, Selected Countries and Regions

Total Reserves minus Gold



# Major Foreign Central Banks' Holdings of U.S. Treasury Securities

Major Foreign Holders of U.S. Treasury Securities



# The Partial De-Coupling Hypothesis: The Shifting Economic Center of Gravity

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- ◆ The “Partial De-Coupling Hypothesis” says that while East Asia is not immune from the economic recession in North America and Europe, it can nevertheless continue growing, albeit at somewhat lower rates.
- ◆ Partial de-coupling is a consequence of the economic center of gravity of the world gradually shifting to East Asia from the United States and Western Europe and within East Asia from Japan to China.

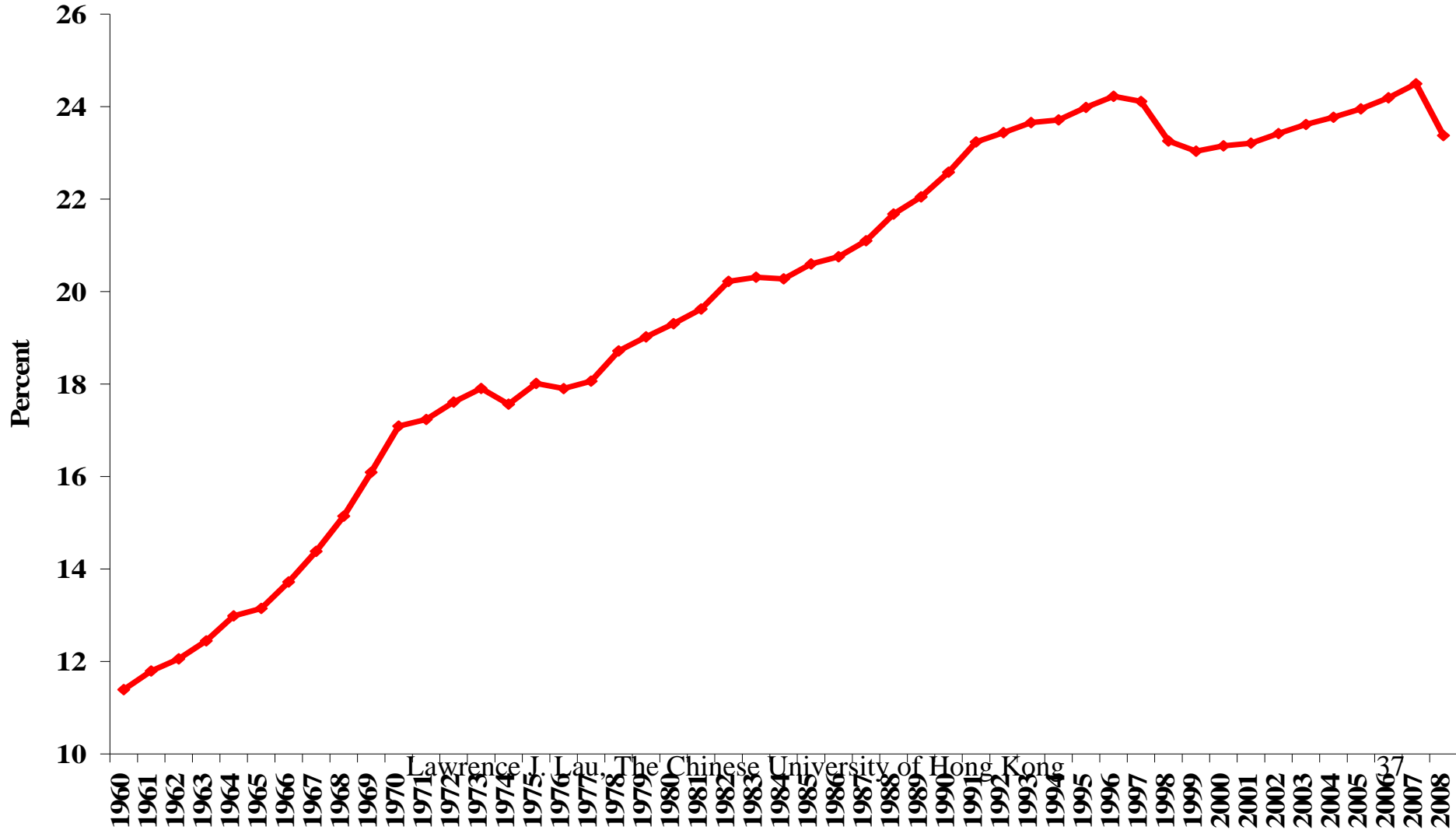
# The Partial De-Coupling Hypothesis: The Shifting Economic Center of Gravity

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- ◆ In 1960, East Asian GDP, comprising of the GDPs of ASEAN (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam) + 3 (China (Mainland only), Japan, and South Korea) was less than 12 percent of World GDP. Today, East Asian GDP accounts for approximately a quarter of World GDP, comparable to the size of the U.S. economy and that of the Euro Zone.
- ◆ In the following charts, East Asian and Chinese GDP as percentages of World GDP are respectively presented. Both show very strong trends of growth over the past half a century. East Asian economies now account for approximately one-quarter of World GDP, comparable to the United States and the Euro Zone.

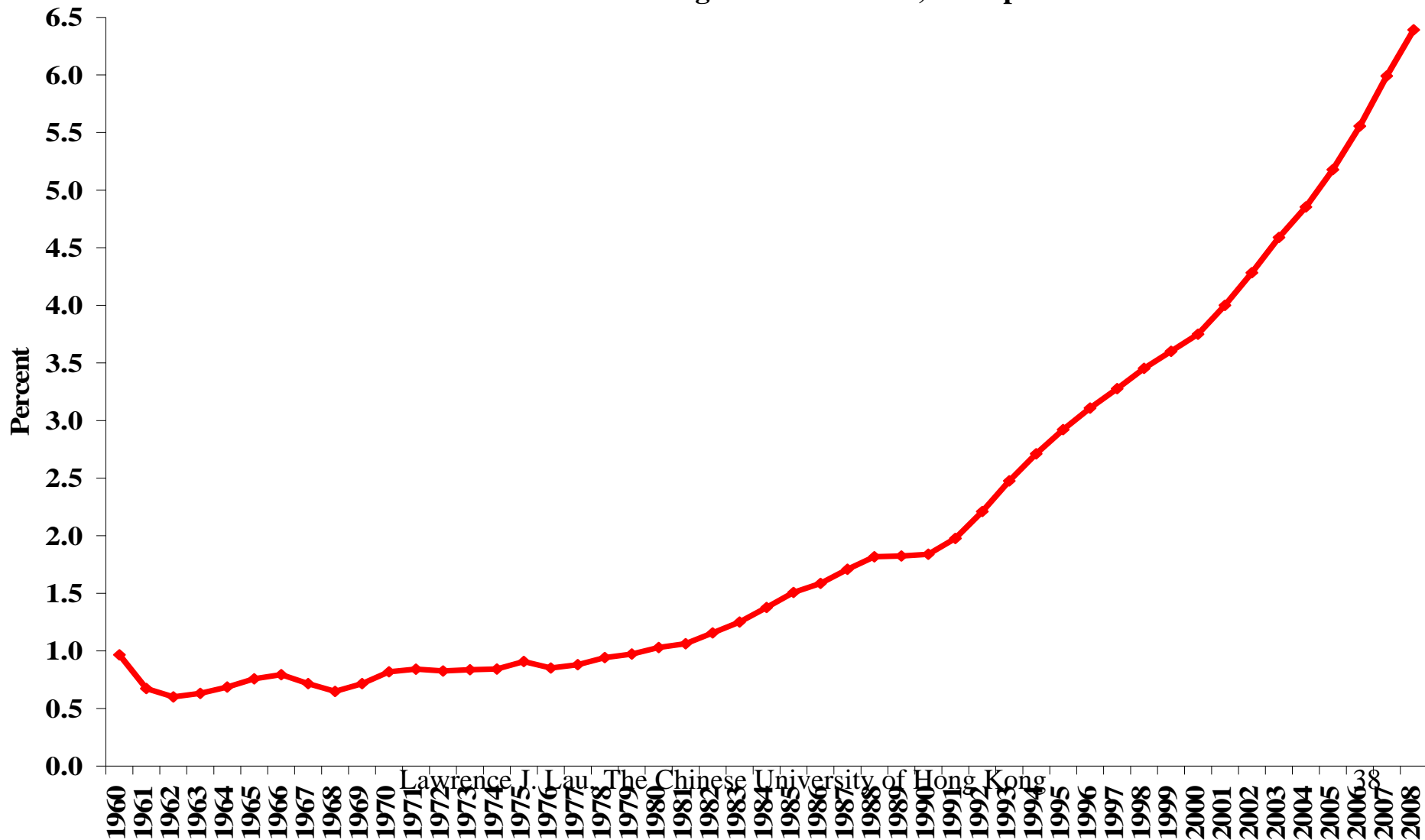
# East Asian Share of World GDP, 1960-present

East Asian Share of World GDP, 1960-present



# China's Share of World GDP, 1960-present

China's GDP as a Percentage of World GDP, 1960-present



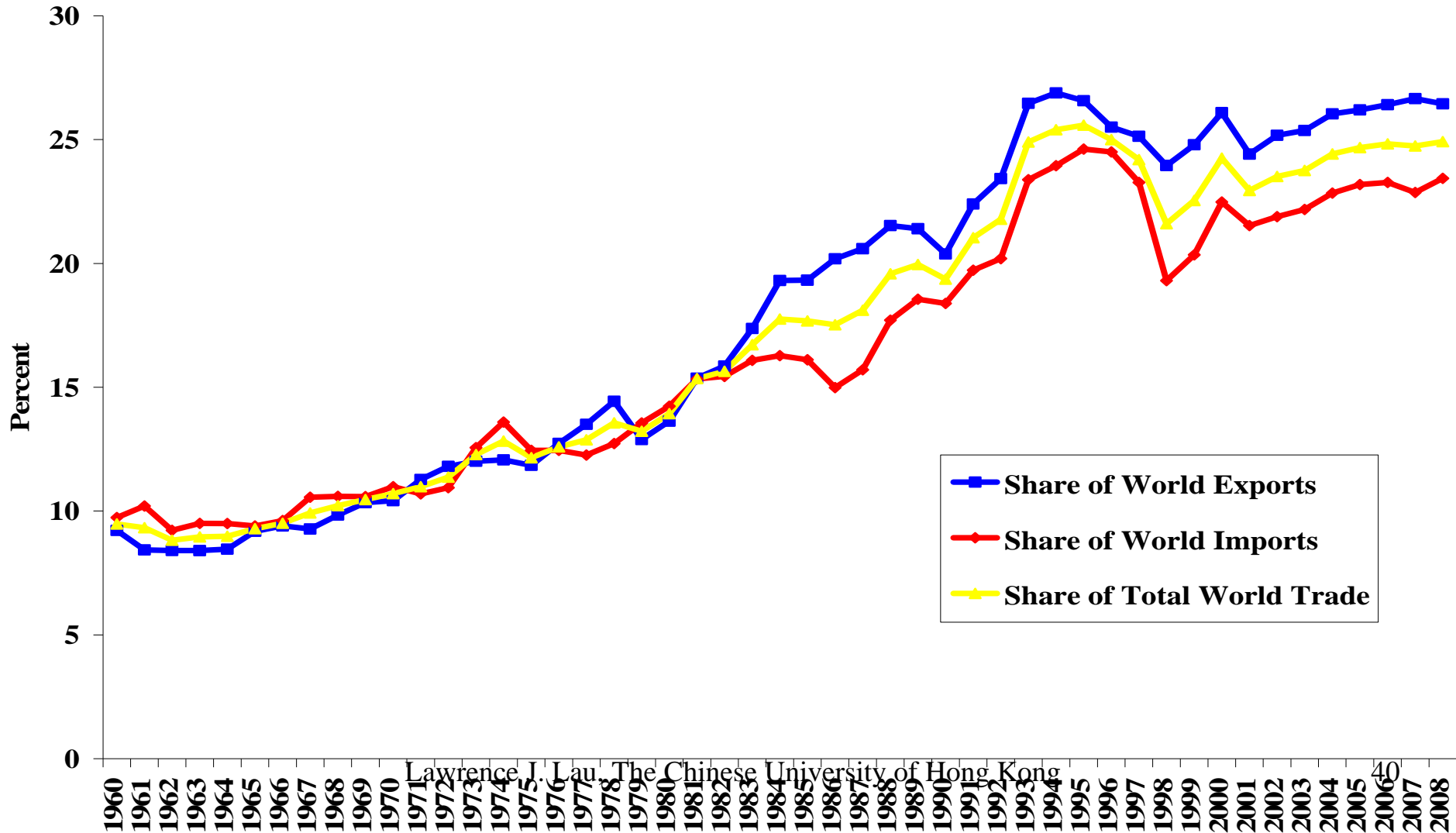
# The Shifting Economic Center of Gravity

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- ◆ East Asian shares of world exports, imports, and international trade have also grown from approximately 10 percent in 1960 to a quarter in 2008, paralleling the growth of East Asian share of world GDP (see the following chart).

# The Rising Ratio of East Asian Trade in Total World Trade, 1960-present

East Asian Share of Total World Trade, 1960-present



# The Ratio of Chinese Trade in Total World Trade, 1950-present

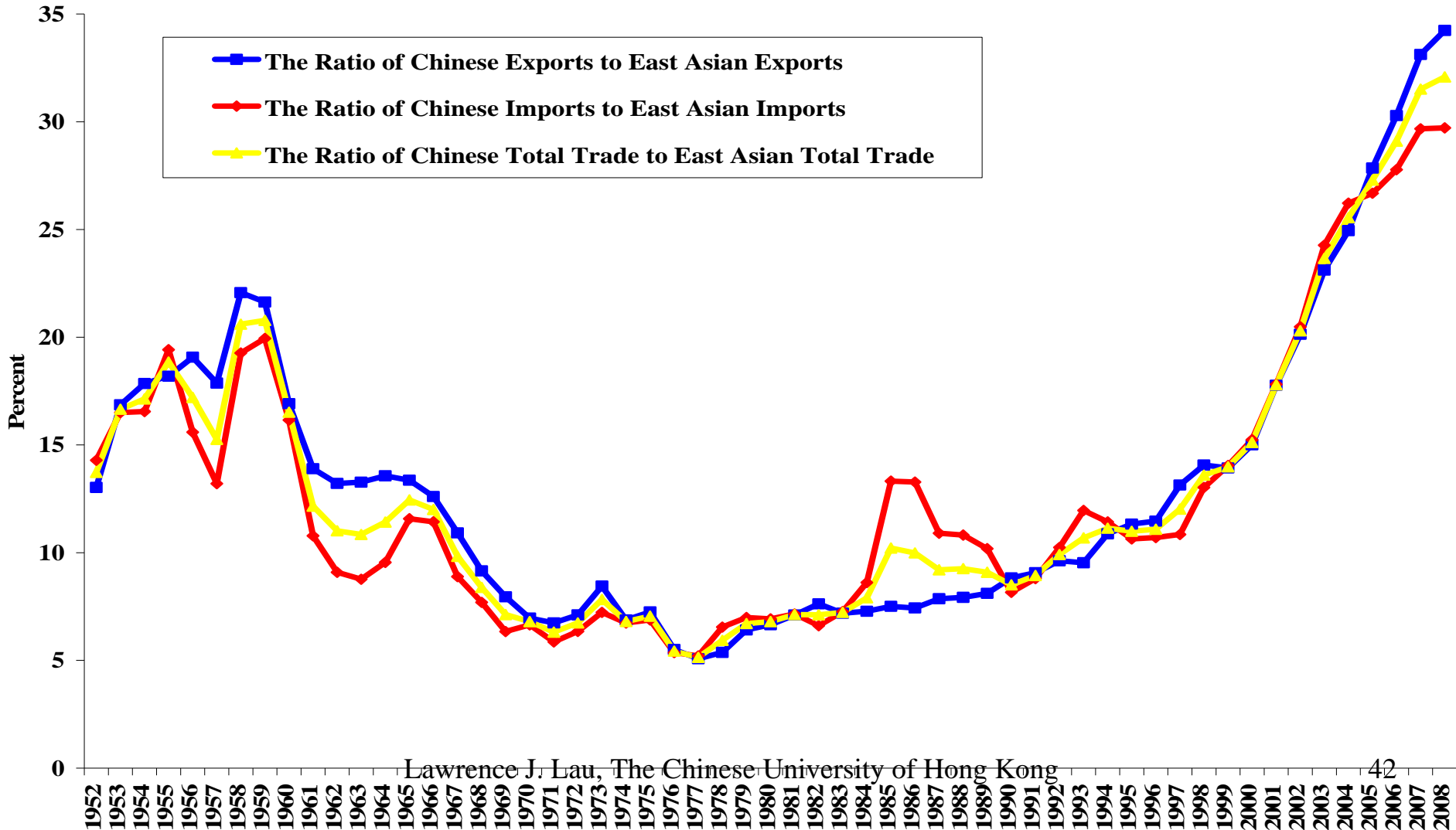
The Ratio of Chinese Trade to World Trade



Lawrence J. Lau, The Chinese University of Hong Kong

# The Ratio of Chinese Trade in Total East Asian Trade, 1952-present

The Ratio of Chinese Trade to East Asian Trade



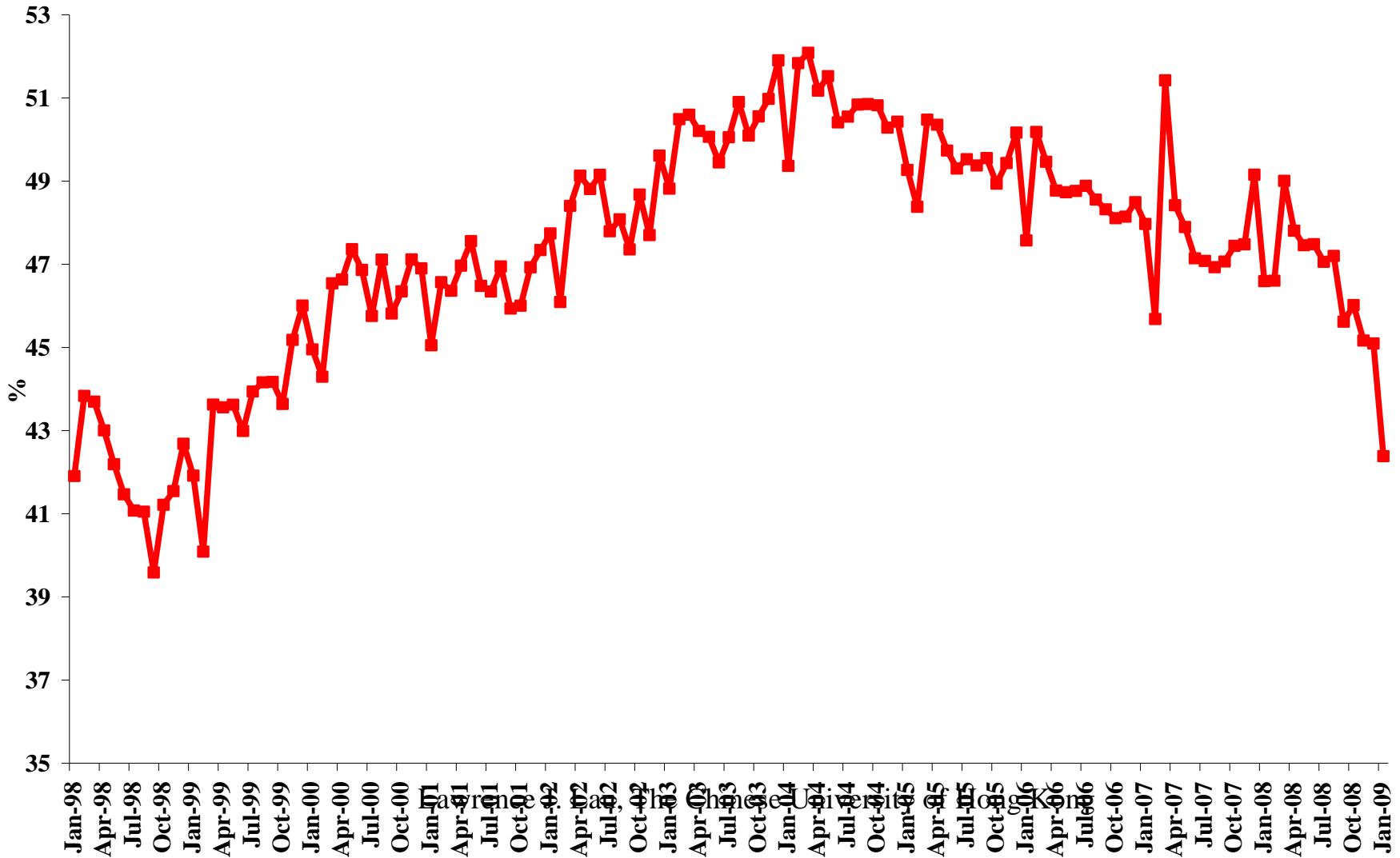
# The Shifting Economic Center of Gravity

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- ◆ Because of the rapid economic growth of China and the rest of East Asia outside of Japan, and the demand and supply that such economic growth has generated, the East Asian economies now trade more with one another than with economies outside of East Asia, including the United States. Approximately half of East Asian trade is among East Asian economies (see the following charts). This is a sea change compared to say thirty years ago when most of the East Asian trade was between East Asia and the United States and Western Europe.

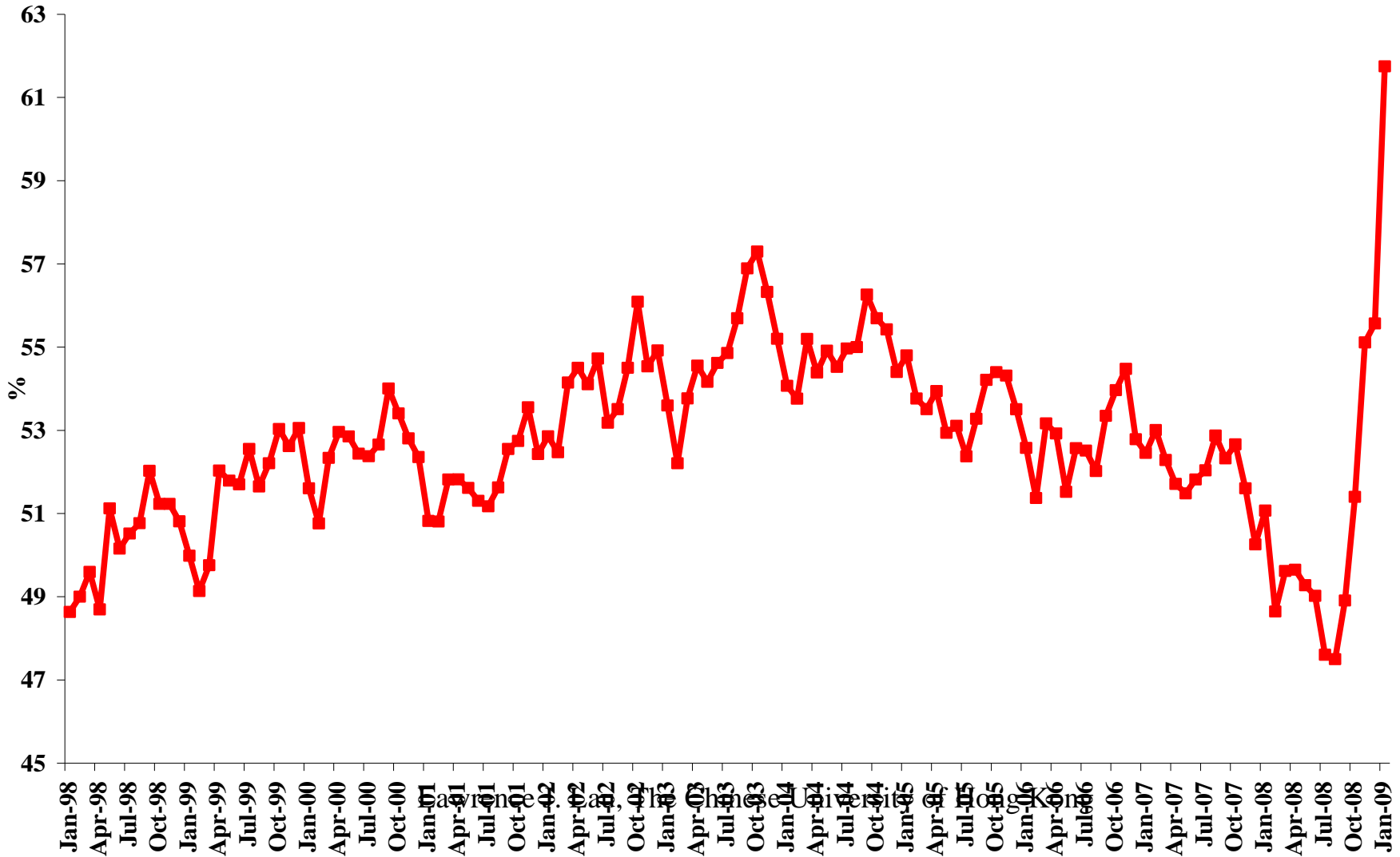
# The Share of East Asian Exports Destined for East Asia

The Share of East Asian Exports Destined for East Asia



# The Share of East Asian Imports Originated from East Asia

The Share of East Asian Imports Originated from East Asia



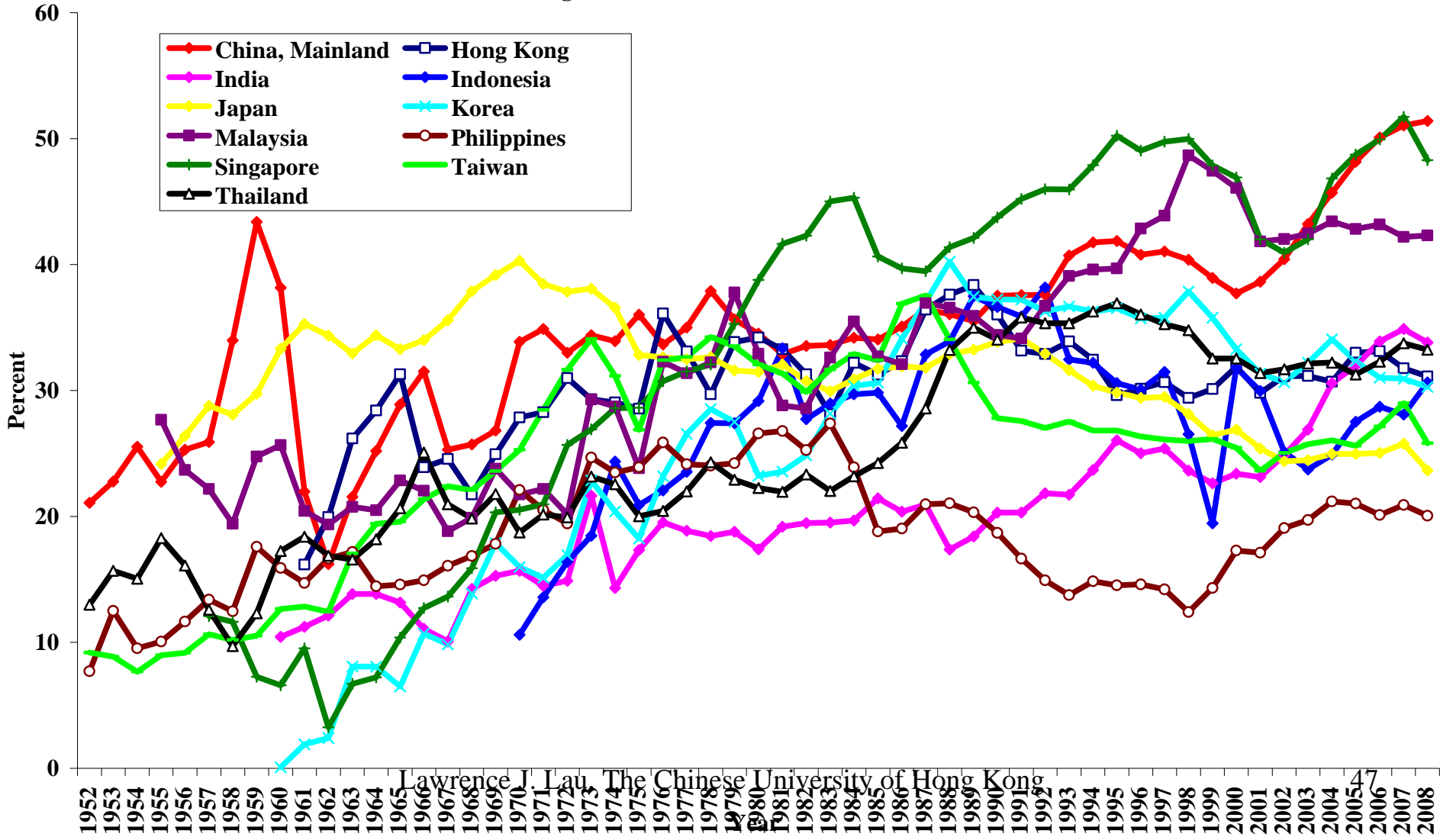
# The Changing Pattern of World Trade

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- ◆ Interdependence of the East Asian economies has been rising sharply over the years and East Asian dependence on the United States and Western Europe has declined. Interdependence of the East Asian economies will rise even further within the next five to ten years as East Asia becomes the only region with significant economic growth.
- ◆ The ASEAN Free Trade Area as well as its variations (+1 (China); +3 (China, Japan and South Korea)) are rapidly becoming a reality.
- ◆ This is what gives credence to the idea of “partial de-coupling” of the world economies—that the Chinese and East Asian economies can continue to do reasonably well despite the current economic problems in the U.S. and elsewhere. However, China and East Asia are not large enough to turn around the whole world.
- ◆ Moreover, the savings rates of East Asian economies (with the possible exception of the Philippines) have always been high and are sufficient to supply the necessary investment to enable the continued growth of these economies even as the inflows of both direct and portfolio investment from outside of East Asia decline.

# Savings Rates of Selected Asian Economies (1952-2008)

Savings Rates of Selected Asian Economies



# Concluding Remarks

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- ◆ The global financial crisis could have been avoided had the financial regulators been more alert and/or learned from their earlier mistakes. But it is too late now.
- ◆ It is not the Chinese trade surplus per se that caused the global imbalances creating the liquidity that led ultimately to the global financial crisis. While the chronic trade surpluses of other economies than China might have contributed to the global imbalances that existed in the early 2000s, it was really multiple regulatory failures in the United States and elsewhere that caused the global financial crisis.
- ◆ The East Asian economies (and India) have been partially de-coupled from North America and Europe so that they can continue to grow, albeit at lower rates, even as North America and Europe go into a deep recession.
- ◆ The Chinese economy should be able to grow at 8 percent this year and next. And the Indian economy should be able to maintain its average rate of growth of the past decade of 7 percent in 2009 and 2010. And this should help to stabilize the economies in the East Asian region.