# Inflation, Appreciation or Reform? A Structural and Institutional Perspective on RMB and China's External Imbalance 

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## -Institute for International Economics scholar Morris Goldstein:

-China's currency is now grossly under-valued on the order of 40 percent against the US dollar. "China should deliver right away a meaningful 'down payment' of a 10-15 percent appreciation of the RMB from its current level."
-Stephen S. Roach of Morgan Stanley:
-"You in the Congress need to ask yourselves an important hypothetical question: How would you feel if you got your way on the Chinese currency adjustment but found that after three or four years the pressures bearing down on American workers had only intensified?"

## Main Challenges to China Today

## -China's main challenge today

- is to develop smoothly-functioning financial, planning, and regulatory systems that can employ the remaining rural surplus labor and surplus capital, which shows up now as China's sustained current account surplus and rising foreign exchange reserves, in an efficient, harmonious, and environmentally-friendly way.
-Prices or Institutions?
-Too much attention has been put on the role of prices, interest rates, and exchange rates in correcting market disequilibrium.
-But in China, hidden transaction costs have been the single most important barrier to its growth, development and prosperity before and since the advent of market-oriented reforms.


## What Is Transaction Costs?

## - Man-made costs:

-Unlike the costs of inputs, which are determined by supply and demand in a market, transaction costs are man-made and determined by how well a society's political, social and economic institutions function.
-Trade barriers as example:
-Before China's reforms began in 1979, foreign trade and investment by private individuals and firms were prohibited, which meant that transaction costs in foreign trade and investment in China were artificially set at a prohibitively high level.

## Low wages or declining transaction costs?

## - China yesterday versus China today:

-No countries in the world worried about China's export competitiveness before 1979 although at that time the average wage for factory workers was only 24 dollars a month (under the official exchange rate of 1.5 yuan/dollar), as compared with the current monthly wages of about $\$ 120 /$ month for migrant workers (under the exchange rate of 8 yuan/dollar in 2006).

- China versus other developing countries:
-Wages in India, Indonesia, and many parts of Africa are probably much lower than in China today and China's wages are increasing steadily, especially for skilled labor.
- Why then do foreign investors still prefer to invest in China?
- Why do China's exports continue to expand as the wages of its workers increase?


## Supply Chain \& Declining Transaction Costs in Exports from China

- The power of supply chain management technology -Able to rapidly identify consumer preferences for a great variety of goods across vast geographical areas.
- Able to locate low-cost producers for each part of the supply chain quickly around the world and make reliable contracts with them, and deliver their products to consumers overseas in a timely manner, thanks to the modern logistics infrastructure.
-Exports from China involve only the labor-intensive processing/manufacturing part.
-Consumer-financing or financing the supply-chain operations for the exported product are handled outside of China using international financial markets in New York, London or Hong Kong.


## Why Does Not International Supply Chain work for Imports to China?

- The supply chain has to start by ascertaining consumer demand and then find the lowest cost producer.
- Consumer demand in China, however, is affected by many factors outside of the control of the international supply chain, including
- China's lack of efficient consumer financing
-the absence of a functioning social safety net
- a shortage of medical insurance
- the weaknesses of the pension system
-an absence of basic urban and rural infrastructures for individual consumption
- lack of basic regulations and enforcement of environmental protection
- shortfalls in the effective regulation of product quality
- a near-total breakdown in the effective protection of intellectual property rights.
- Clearly many of the domestic economic challenges China faces have hindered the growth of China's imports but not exports and are at the root of China's sustained global current account surplus.


## Implications of Asymmetric Transaction Costs for Exports and Imports

-While the relative cost of labor can be affected directly by a change in the exchange rate, transaction costs cannot be affected very much by such a change.
-China's export competitiveness is likely to grow even greater in the future due to the declining transaction costs of exporting.

- In order for China to balance its trade, it has to work hard on reducing the transaction costs for imports.
- Since the barriers to imports are primarily in the realm of hidden transactions costs, not in price, an emphasis on exchange rate adjustment would not be as effective as a focus on reducing the barriers and constraints facing imports into China.


## What is the "right" or "correct" level of China's nominal exchange rate?

-PPP exchange rate:
-a hypothetical benchmark exchange rate derived from the law of one price for the same bundle of goods.
-Suppose we buy the same bundle of goods separately
in China using RMB and in the U.S. using dollars.

- The amount of RMB spent divided by the amount of dollars spent on buying the sample bundle of goods in China and in the U.S. respectively leads to the PPP exchange rate
-which is regarded as the best possible theoretical definition of the "right" level for the nominal exchange rate.


## Nominal exchange rate = PPP exchange rate for tradable under flexible prices

-Surprisingly, if we use only tradable goods for calculating PPP exchange rate, it is likely to be equal to whatever nominal exchange rate currently prevails.

- If you buy a Dell notebook in both Shanghai and New York now, the RMB amount spent in Shanghai divided by the dollar amount spent in New York is likely to be very close to 8 yuan/dollar.
-If there is a gap, it should be less than the costs of ordering and shipping the notebook computer between the two locales.
-If it is not, somebody will be able to make a fortunate by buying in one place and selling in the other.
- The implication is that as long as China maintains free trade, China's nominal exchange rate will always be consistent with the PPP exchange rate based on tradable goods because of the possibility of market arbitrage.
-In other words, claims that China's nominal exchange rate is undervalued are nonsensical unless they are based on a PPP exchange rate derived from buying a bundle of goods that also includes nontradable goods.


## PPP Exchange Rate Based on Big MaC

-The Economist magazine has calculated a PPP exchange rate based on Big Mac sandwiches, a product which is a non-tradable good.

- According to the Economist, in 2006 when China's nominal exchange rate was round 8 yuan/dollar, it would cost 10.4 yuan to buy a Big Mac in China and \$3.15 in the U.S.
- As a result, the Economist's analysis would suggest that the PPP exchange rate based on Big Mac sandwiches should be about 10.4 yuan/\$3.15 dollars, or about 3.3 yuan to the dollar.
-Using the Big Mac PPP exchange rate of 3.3 yuan/dollar as benchmark, China's nominal exchange rate of 8 yuan/dollar would be under-valued by almost 60\%.
- Why does a Big Mac in China cost 60\% less than in the U.S.?
- The answer is simple: the costs of non-tradable goods like labor and rent used in producing Big Mac in China are much lower than those in the U.S.
-In fact, using the Big Mac/PPP exchange rate as a benchmark, the nominal exchange rates of most Asian economies are similarly undervalued.


## Transitory and lasting effects of changes in nominal exchange rate

- An example illustrates how this economic logic functions:
-Suppose China revalues its currency by 15\% tomorrow. This would immediately redistribute a large sum of wealth from exporters to importers.
-As a result, in the short-run, artificially reduce the competitiveness of China's exporters by $15 \%$ and increase the competitiveness of importers to China by 15\%.
-However, the effects on the Chinese economy will not stop after this $15 \%$ revaluation occurs. Many exporting firms will have to close down.
-This may lead to deflation in China. For simplicity, let's assume the deflation would be exactly $15 \%$ to match the revaluation.
-After the deflation, wages and other costs will be cut by $15 \%$ and the exporting firms will be profitable again given the cost reduction will regain the competitiveness they lost temporarily due to the shock of RMB revaluation.
-For importers to China, after the deflation, their customers' income would drop by $15 \%$, cancelling the $15 \%$ gain in purchasing power after the drastic revaluation.
- So in theory
-the nominal revaluation will have temporary effects on the competitiveness of importers and exporters through a redistribution of income among these actors
-but would have no lasting effects on competitiveness after the economy adjusts to the shock.


## The experiences of Japan

## -We can consult the experiences of Japan

-which allowed its currency to appreciate steadily and significantly for many years during the 1990s

- with little effect on reducing or eliminating Japan's current account surplus.
-What Japan got from the appreciation of the yen was little more than a decade of deflation!
- If Japan had held its nominal exchange rate constant throughout 1990s
- it would likely have faced inflation during that period.
-But too great an appreciation of the yen eliminated the necessity for inflation
-and even required some deflation to compensate the excessive appreciation of yen.
-Professor Ronald McKinnon
-after conducting an in-depth study of Japan's exchange rate policy and its deflation in 1990s
-recommended to China that it maintain its current peg to dollar.
- Nobel Prize winner economist Robert Mundell has also expressed similar views to those of Professor McKinnon.


## Nominal Exchange Rate Is about Domestic Price Level and Little Else!

-The argument that changes in the nominal exchange rate would have a lasting effect on current account balances is misleading.

- If a country can gain real competitiveness through nominal devaluation of its currency, economic growth and development would be easy and should have been accomplished a long time ago for many developing countries.
-The nominal exchange rate is only a benchmark for domestic price levels.
- Changes in the nominal exchange rate will have lasting effects only on the domestic price level, not on competitiveness.
-Lasting improvements in competitiveness are determined by factor costs, transaction costs, technological progress, infrastructure, human capital and other real variables, but not the nominal exchange rate.
- Moreover, sustained current account imbalances have very little to do with the level of nominal exchange rate.
-Current account imbalances are fundamentally about surpluses or deficits of capital, about savings and investment gaps, and about consumption and saving behaviors.


## When Is Inflation equivalent to Currency Appreciation?

## -The implications of basic but overlooked economic principles:

-Inflation and currency appreciation are substitutes and they are equivalent in terms of facilitating the rise of a country's domestic price level.

- More specifically, appreciation of the RMB and inflation in China are equivalent in their effect on an upward adjustment in China's domestic price level.
-Let's look at this from the perspective of a U.S. consumer. -If China's RMB appreciates $15 \%$, the costs of buying goods made in China are likely to increase by $15 \%$.
-Now, instead of supposing a hike in the RMB exchange rate, let's imagine China witnessed $15 \%$ inflation.
-The effect of this inflation, as experienced by our hypothetical American consumer, would be to raise the costs of buying goods made in China by $15 \%$.


## When Is Inflation different from currency appreciation?

## Inflation and currency appreciation work through very different economic mechanisms.

- Inflation is a result.
-It can be engineered by the central bank but will not only take time but also requires the cooperation of each individual and company in the economy.
-This has been shown clearly in the experiences of Japan during its deflationary decade in the 1990s.
-Inflation is an aggregation of price adjustments in each sector and market where rational individuals and companies make decisions about how to respond to changes in wages and prices.
-However, large currency appreciation or revaluation, has to be initiated by aggressive government intervention from the top.
-When the exchange rate changes, it will affect all members of society immediately through a forced redistribution of wealth, followed by forced wage and price adjustments.
-Structural inflation, which accommodates domestic price level changes, works through individual markets with much less shock to the society than sudden and large exchange rate changes.


## Why Should China adopt Inflation-first and appreciation-second strategy?

- To speed up the growth of China's domestic price levels, China can of course use either inflation or currency appreciation, or even use both at the same time.
- In my view, China should be encouraged to run a stable but low rate of inflation first, say about 5\% a year, so as to facilitate the steady growth of its domestic price levels with those in more developed economies.
- When structural inflation, which is different from pure monetary inflation, is expected to reach beyond $5 \%$, China should also add currency appreciation as an additional instrument to further absorb the pressure for increases in domestic price levels.
- The extent of currency appreciation should be determined by the market in the sense that appreciation would not be so excessive as to push inflation down below 3\%.
-This inflation- first and appreciation-second strategy
- would avoid the risks of both deflation and excessive inflation.
-It will also be able to deter currency speculation as speculators would need to worry about inflation in China whenever they bet on the appreciation of RMB.
- Speculators and investors can still bet on real estate, which will rise in value with both inflation and appreciation
- but the catch-up of prices in property should be viewed as a leading indicator for the catch-up of overall price levels in China
${ }^{-}$and should not concern the Chinese authorities too much as long as the investors are required to make sizable downpayments for their properties.


## How to Close the Gap in Price Levels between China \& US

- Measuring the gap in price levels
-The gap in price levels between China and the U.S. can be measured by the difference between China's nominal exchange rate ( 8 yuan/dollar in 2006) and the PPP exchange for GDP as calculated by the World Bank (2.6 yuan/dollar in 2006).
-This gap is as much as 67.5\%.
- This gap can be closed in only one of two ways (or a combination of both):
-1) additional inflation in China that is greater than inflation in the U.S., or;
-2) appreciation of the RMB relative to dollar.
- The gap in price levels is due to differences in the
prices of non-tradable goods
-since the prices for tradable goods will converge very quickly due to the possibility of arbitrage.
- Why and how do the prices of non-tradable goods in China increase?


## Balassa-Samualson: Productivity GrowthDriven Inflation and Appreciation

## -According to the Balassa-Samualson theory

-Rising productivity in China's tradable sector (manufacturing) should raise the wages of engineers.
-This development should entice workers from the non-tradable sector, such as stylists in hair salons, to shift to the manufacturing sector.
-As a result, if there is no surplus labor in the economy, wages for hair stylists will also rise even though there is little productivity gains in the haircutting business.
-Increases in wages for all sectors will lead either to inflation or will require a currency appreciation in order to accommodate the increase in price levels stemming from the productivity gains in the manufacturing sector.

- Productivity growth in the tradable goods sector is the driver for structural inflation and currency appreciation.
- However, before inflation and currency appreciation can take off significantly, the economy first needs to reach a state of full employment.
- This is pretty easy for economies like Japan, Korea, and Hong Kong, where full employment was achieved soon after industrialization started.
- However, this process will take much longer for China.


## Productivity Growth-Driven <br> Inflation/Appreciation: Japan and Hong Kong

-Japan's experiences in productivity growth-driven inflation/appreciation.
-From 1950 to 1960, Japan's average inflation rate was about $5.3 \%$, exceeding average US inflation of $2.6 \%$ by 2.7 percentage points;
-From 1960 to 1971, Japan's average inflation rate was about $5.5 \%$, exceeding average US inflation of $3.4 \%$ by 2.1 percentage points;
-From 1979 to 1993, Japan's average inflation rate was about 2.3\%, 2.4 percentage points below the average US inflation of 4.7\%.

- This leads to a rapid appreciation of yen from 360 yen/dollar in 1971 to about 100-120 yen/dollar in 1990s.
-Hong Kong's experiences:
-With HKD linked to USD, Hong Kong's average inflation rate during from 1980 to 2000 was about $3 \%$ higher than the average US inflation, due to rapid productivity growth.
-Hong Kong's unemployment rate was as low as $2 \%$ around 1997.


# Productivity Growth-Driven Inflation/Appreciation: China 

## -The Case of China is a bit complicated but still consistent:

-A number of studies have shown that rapid labor productivity growth in China's industrial sector has occurred and is continuing.
-This productivity growth has led to a steady increase in the wages of urban workers.
-High and rising urban wages attracted as many as 119 million migrant workers from China's rural areas to its coastal cities in recent years.
-But due to the large pool of rural and migrant labor forces, which may amount to as many as 481 million people, the growth in wages for rural and migrant workers has been very slow until recently.
-As a result, inflation has been low and currency appreciation very slow in China during the last decade despite the country's tremendous growth rates.
-However, in the next decade or two, as China's baby boom generation starts aging and the economy continues to grow rapidly, China is likely to get closer and closer to full employment.
-When this happens, China is likely to experience similar rapid structural inflation and/or currency appreciation such as experienced by Japan and Hong Kong.

## The Substitution between Inflation in China and RMB Appreciation

-The 1993-1996 experiences
-With little knowledge of sterilization, large inflows of FDI combined with reform and opening after Deng Xiaoping's Southern Tour in 1992 led to rapid productivity growth as well as double digit inflation in 1993-1995

- and then large RMB depreciation in 1996 to correct for the excessive inflation
-The experiences since 1997
-China experienced brief deflation after the Asian financial crisis
-Low inflation combined with rapid productivity growth due to reform and opening (WTO entry) is creating pressure for RMB to appreciate
-In 2006 China's inflation rate is about 1.5\%, much lower than the US inflation rate of more than 2.5\%.
-In 2006, the regular-grade gasoline price increased about $30 \%$ in US but only about 15\% in China.


## What Determines China's Domestic Price Level Relative to that of US?

-China's domestic price level determines the costs of goods made in China to American consumers.
-The gap of price levels between China and US is calculated by comparing the nominal dollar exchange rate of the RMB (8 yuan/dollar in 2006) with the PPP dollar exchange rate of RMB for GDP in China (2.6 yuan/dollar in 2006).
-In 2006, China's domestic price level is 2.6/8.0, or $32.5 \%$ that of the U.S.
-China's domestic price level is determined by the underlying growth of productivity in China, not by China's premier, not by the governor of China's central bank, and not by Congressmen in Washington.
-If the RMB appreciates too fast, China will get deflation;
-if the RMB appreciates too slowly, China will get inflation.

- The combination of actual inflation in China and actual RMB appreciation will then determine China's actual domestic price level relative to that of U.S. price levels.


## How Many Years Are Needed for China's Price Level to Catch Up with that of US?

## -Assuming:

-China will maintain an inflation rate exactly the same as that in the U.S.
-China will have a constant annual rate of RMB appreciation
-Question?
-The number of years needed for China's price level to catch up to the same level in the U.S.?
-Answers:

- 57 years if RMB appreciates at 2\% a year
- 38 years if at $3 \%$ a year
- 23 years if at $5 \%$ a year
- 15 years if at $8 \%$ a year
- 8 years if at $15 \%$ a year.


## How Fast Should China's Price Level Catch Up with that of US?

## -Now let's ask ourselves:

-How many more years would it take for China's domestic price level to reach the U.S. price level, taking into account the past global experiences in the convergence of price levels among developed and developing countries?

- Your answer could very well fall into a range from 15 years to 38 years
-which then would imply a range of annual RMB appreciation from 3\% to 8\%
-In my view, it is not possible for China's domestic price level to reach that in the U.S. within 15 years time.
- If this common sense judgment makes any sense, then China's average annual currency appreciation plus its extra inflation would not possibly to exceed $8 \%$.
-Hence, 4\% per year extra inflation and 4\% per year currency appreciation would probably be the best we can hope for China.


# China Is under Deflation Now! (Relative to US and Asia) 

- In fact, relative to the U.S., China had deflation in 2006!
-In 2006, China's inflation rate was only $1.5 \%$, much lower than the inflation rate in the U.S. of 2.5\%.
-in 2006, inflation reached 2.2\% in Korea, 5.5\% in India, 7.9\% in Pakistan, $13.1 \%$ in Indonesia, $7.5 \%$ in Vietnam, and $6.2 \%$ in the Philippines
${ }^{-}$The average rate of RMB appreciation in 2006 was around $3 \%$.
-So in 2006 China's domestic price level increased only about 2\%
( $1.5 \%-2.5 \%+3 \%=2 \%$ ) relative to that in the U.S.
-At this pace, it will take China 57 years to catch up to the U.S. price level.
-No wonder so many in Washington are getting impatient about China's currency policy!
-However, while it is easy to complain about China's slow adjustment, it is difficult to find a solution to speed up China's price level catch-up.


## China's Surplus/Underemployed Labor

## - In 2006 the total employment in China is 764 million:

-only 283 million belong to the urban sector
-119 million of migrant workers (up 7 million over last year with average monthly wage of $\$ 120$
-362 million rural workers.
-481 million unskilled workers (119+362), who are currently earning \$120 a month or less.
-481 million rural and migrant workers in China face two choices:

- If they stay in the villages, they can maintain a standard of living more or less the same as that for an average Chinese peasant, which is barely above the subsistence level.
-If they choose to find a job in the cities, they have to compete with other migrant workers for the limited number of urban jobs.
- Fierce competition in the unskilled labor markets
- which are linked nation-wide through the newly completed interprovince highway system, mobile phones, bus and rail routes as well as the informal township associations,
- has driven wages for all unskilled labor down to a very competitive level similar to the subsistence income of the average Chinese peasants. -In order to raise the income for one group, it is necessary to raise the income for all groups.


## Environmental and Health Risks of Low Wage Employment in China

-The low wages of unskilled workers has adverse effects on the environment and public health -as unskilled workers may encourage low-cost production that generates huge environmental and public health damage when the government and the industries with low profit-margins do not have enough resources and incentives to take necessary precautions and preventive measures.

- Although it is difficult to get reliable data, from my own experience in visiting many rural enterprises I can conclude that the costs of pollution and of the waste from low-energy efficiency technology could be much larger than the thin profits and low wages generated from many rural industrial enterprises.
-Unfortunately the central government of China has not yet found an effective way to limit the low-efficiency activities that provide sociallycostly employment to the unskilled labor pool.
- China needs help from the international community to identify and stop these value-subtracting industries quickly before permanent damage is done to the environment and people.


## How to Increase Consumption in China?

-The advice on increasing consumption cannot be wrong.

- However, consumption in China today is largely under the control of individual families and firms.
-They have probably already tried their best to optimize their consumption given all the constraints they face, and
- are unlikely to welcome the government telling them how to spend their money.
-Barriers to consumption and incentives to saving:
-Since the health insurance and social security networks in China are in their infancy, many Chinese people choose to save a great deal of money as a hedge against severe illness.
- In the absence of student-loan programs, families also choose to save a great deal for their children's education.
-As roads, subways and schools for many newly developed residential communities are underdeveloped, many middle class Chinese families decide to buy property, betting on the capital gains but refraining from moving into the new property until the road and/or subway networks are completed.
-All of this begs the question, how can China best increase
domestic consumption?


## More Productive Public Investment Is Necessary for More Consumption

## -Conditions for more consumption:

-build an integrated health insurance system;

- create student-loan or scholarship programs;
-and build more roads, subways, and schools.
-All these solutions, not surprisingly, require investment.
-But these are productive public investments that are fundamentally different from the investment that generates unproductive over-capacity.
- More productive public investments will free up the consumption power of Chinese households, which are currently held back as a hedge against potential negative future eventualities.


## Dilemma for China's Central Bank

> -Because of the difficulties in distinguishing productive investment from unproductive investment, the central bank of China faces a dilemma:

-if it adopts a loose monetary policy, it will have to deal with over-capacity when unproductive investment expands out of control;
-if adopts a tighter monetary policy, it will have to deal with a current account surplus when imports and productive investment cannot grow fast enough to keep up with the expansion of exports.

## Why Macro Policies Not Enough?

## - Macro-economic instruments

-such as control over the money supply, exchange rate, interest rates, and bank reserve ratios -do not distinguish between productive from non-productive investment.

- The Chinese government was forced to go back to its old tools: -administrative controls, industrial policy and political discipline including an anti-corruption campaign.
- To speed up China's catch-up in domestic price level
-the international community should encourage China to adopt a loose monetary policy,
- which means less sterilization of its rising foreign exchange reserves,
-So as to accommodate steady structural inflation, -and a low and stable inflation rate is a necessary condition for facilitating an orderly RMB appreciation that would not risk deflation.
- But to convince China to adopt a loose monetary policy,
-it is necessary to help China to develop a robust financial, planning and regulatory system that can distinguish productive from unproductive investments.

How to distinguish productive investment from unproductive investment?
-The entire financial, planning and regulatory system in the modern economy is designed to answer this question
-to screen out good projects and finance them at low costs while rejecting poorly-designed projects.
-These services are desperately needed in China.
-They are what make London, Hong Kong and New York the global financial and business capitals that they are today.

- The essential function of a good modern financial, planning and regulatory system is
-to reduce the transaction costs between capital and labor so that they can productively work together.


## A "Marshall Plan" for China?

## China's challenges:

-China currently faces unprecedented challenges and opportunities not entirely dissimilar to those of post-war reconstruction in Europe.

- Help from US?
-Without the help and cooperation of the U.S. and other developed nations, China is unlikely to be able to handle this crucial step in its economic, social and political modernization.
-Paulson's "Marshall Plan"?
-In this context, the recent speech by U.S. Treasury Secretary Henry Paulson in Shanghai on "The Growth and Future of China's Financial Markets" is comparable to a preliminary draft of "Marshall Plan" (or more accurately "Paulson Plan") for China.


## Why Should US help China?

## -A "Marchall Plan" for China?

-A "Marshall Plan" for China could bring a win-win result for both China and the U.S. in the 21st Century.
-Without a "Marshall Plan"
-China will not be able to employ productively and fully the 481 million rural and migrant workers.
-Instead, China may have to create hundreds of socially-costly rural enterprises which create more pollution and social instability than they generate in profits and wages.
-China's imports will not be able to balance off its exports, which will continue costing the US and other nations jobs while encouraging protectionism.
-China's potential purchasing power will be locked up in its foreign exchange reserves instead of becoming productive investment and consumption which would bring contracts for goods and services produced by American workers.

## A Win-Win Game for All

## - The potential:

-The strength of the financial sector in the U.S. contrasts sharply with the weakness of that sector in China.

- With a strong financial sector, the average American can afford to maintain a low savings rate since they can secure capital gains on their investments in property and capital markets.
-With a weak financial sector, the Chinese consumer has to maintain a high saving rates, lower consumption (and hence a lower standard of living), and thus China's surplus capital cannot be used to hire productively all its own people.
-The worry today:
-Americans today worry about the competition from China just like Hong Kong people did a decade ago.
-But today, people in Hong Kong realize that when China is growing productively, there will be more work than all of Hong Kong's labor pool can handle.
- The win-win future (a dream?):
-If America can help China fix its financial sector, China will create an enormous demand for American goods and services, with consequent benefits and employment opportunities for the American people.
- Supply creates demand if only we have an efficient financial sector and if the transaction costs are decreasing towards zero.


## Summary and Conclusion

## Mis-understandings about RMB Appreciation, Current Account Surplus, and Competitiveness

-China and global community need to understand -RMB appreciation/depreciation is more about China's inflation/deflation rather than about China's competitiveness; Inflation and RMB appreciation are substitutes in the longer run and they are equivalent channels for the adjustment of China's domestic price level relative to that of US
-Current account surplus is more about exporting of surplus capital due to poor financial sector, which cannot hire surplus labor productively, than about competitiveness.
-China's competitiveness is more about declining transaction costs due to reform, rapid technological progress due to opening and globalization, and low labor costs due to large surplus rural labor than exchange rate adjustment and current account imbalance.

## Balassa-Samuelson Model with Chinese Characteristics

## - According to Balassa-Samuelson theory

-Rising productivity in the tradable sector should lead to rising wages, rising prices in non-tradable sector, and then inflation in the whole economy or RMB appreciation

## -Why didn't China have sustained inflation? Why didn't China <br> have larger currency appreciation?

-Rapid productivity growth in the tradable sector combined with slow wage growth has kept the tradable prices low and even falling, creating deflationary pressure in the tradable sector and reducing government's incentives for large RMB appreciation;

- Abundant surplus labor has helped to slow the rise of nontradable goods' prices and inflation;
-Government control on raw material prices and housing prices, especially during macro tightening, depressed or delayed necessary inflation caused by productivity growth;


# Lewis Dual-Sector Model with Chinese Characteristics 

-Surplus labor in China's rural sector is moving to modern manufacturing and service sector of higher and rising productivity in the coastal region
-The wages of unskilled migrant workers are roughly equal to the real income of the Chinese peasants due to high mobility between rural and urban region after reform;
-The minimum wage in Shenzhen and other coastal regions has been very stable around US\$100-120 per month for last two decades but increased 17.4\% last year to 810 yuan per month;
-The rising productivity and wages for the skilled labor had little impact on the wages of rural migrant workers until very recently;

- However, China also has large surplus capital as indicated by consistent large current account surplus in the last decade, which is not expected in the Lewis model
- Why does not surplus capital hire more surplus labor?
-The answer lies in the poor financial, planning, and regulatory systems -Reforms are necessary to increase productive public investment and reduce socially costly investment and production.


## Thank you

