April 10: China
Not hard to motivate this topic

• Among the implications of China’s rise are:
  – Direct, dramatic impacts on the living standards of a quarter of the world’s population.
  – Far-reaching changes in the balance of economic, financial and political power.
  – Major environmental impacts.
  – Effects on US workers’ living standards.
    – [The increase in urban employment in China is equivalent to adding another middle sized industrial country to the world economy each year.]
iClicker question: which economy is larger in terms of GDP (measured at market exchange rates)?

• A. United States
• B. China
iClicker question: how many times larger is the United States?

• A. Twice as large
• B. Four times as large
• C. Ten times as large
iClicker question: how many times larger is the U.S. economy?

• A. Twice as large
• B. Four times as large
• C. Ten times as large

• Answer: the U.S. economy is four times as large at market exchange rates.
According to a 2008 Gallup Poll, what percentage of Americans think the Chinese economy is larger?

- A. 10 per cent
- B. 40 per cent
- C. 80 per cent
According to a 2008 Gallup Poll, what percentage of Americans think the Chinese economy is larger?

- A. 10 per cent
- B. 20 per cent
- C. 40 per cent

• Answer is 40 per cent.
The economic record

Astonishing growth of 10% per annum since reform started in 1978.

- Share of labor force in agriculture has fallen from 70 to less than 50 per cent over the 30 year period.
- Share of industrial output produced by State-Owned Enterprises (SOEs) has declined from 78 to 30 per cent.
- Exports + Imports are up from 10 to 47% of GDP since 1989.
- Infant mortality rates have declined significantly. Other measures of living standards show the same thing.

Figure 1. Economic growth has been rapid.

Source: World Bank, WDI and authors' estimates.
Some effects

• China is now far and away the world’s fastest growing economy (growth of 10 per cent p.a. – although Chinese growth statistics are suspiciously stable).

• In 20 years, China has moved from having a per capita GDP (PPP corrected) equal to India’s to now having one twice as high.
  – (Recall our discussion of new goods and how conventional statistics understate improvements in living standards – this presumably applies to China.)

• Standard of living has increased to the point where the World Bank no longer includes China among the poor countries.
  – UN Human Development Index ranks it among countries with a “medium level of human development”

• China is second behind only US in value of foreign trade.
• It is the single largest destination for foreign investment.
• And it is of course the most populous country in the world.

  – We can summarize much of this in four basic facts:
Fact (1): Chinese growth is driven by high investment and to much a lesser extent TFP growth (as we would expect of a catch-up economy)

Table 1. Sources and aspects of growth (1978-2005) *
(average annual increase, in percent)

<table>
<thead>
<tr>
<th></th>
<th>1978-93</th>
<th>1993-2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP growth</td>
<td>9.7</td>
<td>9.6</td>
</tr>
<tr>
<td>Employment growth</td>
<td>2.5</td>
<td>1.1</td>
</tr>
<tr>
<td>Labor productivity growth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>From TFP growth</td>
<td>3.3</td>
<td>2.8</td>
</tr>
<tr>
<td>( of \text{ which } ) from reallocation of labor b/t sectors</td>
<td>1.3</td>
<td>1.1</td>
</tr>
<tr>
<td>From increasing H/L</td>
<td>0.5</td>
<td>0.2</td>
</tr>
<tr>
<td>From increasing K/L ratio</td>
<td>3.2</td>
<td>5.3</td>
</tr>
<tr>
<td>Memorandum items (in percent)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment/GDP ratio (period average)</td>
<td>29.9</td>
<td>36.8</td>
</tr>
</tbody>
</table>

Source: NBS, and staff estimates.
Fact (2): China’s high investment is supported by extraordinarily high savings rates (here we see gross domestic savings circa 2005)
Fact (3): productivity is higher in industry than agriculture, so growth is boosted further by shifting resources between sectors.
Fact (4): this process still has a long way to run
Some comparisons may help to shed light on the economy’s performance

- Following its “takeoff” in 1979, China grew at the same rate as post-1955 Japan and post-1967 NIES for a decade.
- But after that, their experiences diverged.
- Higher than typical growth is supported by respectable TFP growth in combination with higher than typical investment.
- It is this recent experience that is unprecedented and unique.
- The question implicit in it is whether it can be sustained.
Savings and investment rates are impressive even by East Asian standards.
Questions raised by this experience

• Is this “outperformance” sustainable, or will China now slow down?

• Does China’s experience suggest the existence of a unique model of how to organize economic activity?

  – This is the point where some history may help.
Some Potted History

- Circa 1000, China probably had the highest per capita income in the world. Angus Maddison’s heroic estimates at right are indicative of this.
- China’s technologically progressive society developed gunpowder, clocks (see right), other modern technologies.
- China was first to develop a civil service based on competitive examinations and efficient system of public finance.
- Yet the country fell behind starting with the Ming Dynasty (1368-1644). Sustained modern growth was not initiated.
Conventional explanations

• One explanation is that a centralized state was needed for large-scale hydraulic and defense projects (think of the Great Wall), but this was not conducive to a European-style scientific revolution or to economic and technical innovation, which became increasingly important to growth after 1750.

• In addition, foreign incursions disrupted the economy (Western invasions in response to Boxer Rebellion, Japanese invasion, etc.). In a century, China lost 2 wars with Japan, was invaded three times by Britain and France and once by Russia and the U.S. It then suffered a debilitating civil war.
The Modern Period

• Consolidation (1949-52): private enterprises were placed under government control. Foreign enterprises were nationalized.

• First 5-Year Plan (1953-57): Heavy dependence on low-interest-rate Soviet loans. Construction of modern industrial facilities by Soviet experts, who trained Chinese technicians to run them.

The Modern Period (Continued)


- Post-Cultural Revolution Period (1970-6): Turn from class struggle to modernization, emphasizing acquisition of foreign technology. Ten-year plan envisaged rapid growth of agriculture and industry.
Key growth-sustaining reforms were initiated starting in 1978

- Unrealistic growth targets were scaled back.
- Functions of central government and state enterprise more clearly distinguished, with the intent of giving the latter more autonomy.
- Small state enterprises were transformed into collectives.
- Small private enterprises allowed.
- Given more freedom to set prices.
- Farmers allowed to lease land and keep surplus production.
- These were still modest and limited reforms.
- Impact was positive if uneven.

<table>
<thead>
<tr>
<th>Year</th>
<th>Real GNP</th>
<th>Real Gross Industrial Output</th>
<th>Retail Prices</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>7.9</td>
<td>9.3</td>
<td>6.0</td>
</tr>
<tr>
<td>1981</td>
<td>4.4</td>
<td>4.3</td>
<td>2.4</td>
</tr>
<tr>
<td>1982</td>
<td>8.8</td>
<td>7.8</td>
<td>1.9</td>
</tr>
<tr>
<td>1983</td>
<td>10.4</td>
<td>11.2</td>
<td>1.5</td>
</tr>
<tr>
<td>1984</td>
<td>14.7</td>
<td>16.3</td>
<td>2.8</td>
</tr>
<tr>
<td>1985</td>
<td>12.8</td>
<td>21.4</td>
<td>8.8</td>
</tr>
<tr>
<td>1986</td>
<td>8.1</td>
<td>11.7</td>
<td>6.0</td>
</tr>
<tr>
<td>1987</td>
<td>10.9</td>
<td>17.7</td>
<td>7.3</td>
</tr>
<tr>
<td>1988</td>
<td>11.3</td>
<td>20.8</td>
<td>18.6</td>
</tr>
<tr>
<td>1989</td>
<td>4.4</td>
<td>8.5</td>
<td>17.8</td>
</tr>
</tbody>
</table>

Why was reform initiated at this time?

• One answer is that the cultural revolution had decimated civil service, public administration and the professions, reducing the government’s tax revenue.

• Another is that there was growing evidence of the Soviet economy (China’s model at some level) falling behind.

• A final factor is that the Chinese authorities recognized that stimulating growth required purchasing foreign technology. And that required exporting.
Early reforms produced results but also suffered from problems

- In agriculture, limited term (15-year) farm leases provided no incentive to improve irrigation, preserve fertility of soil, etc.
- In industry, managers had incentives to, inter alia, overpay themselves and succumb to related agency problems. Thus, while it is often said that the lesson of China is that a price mechanism, and not private ownership, is what is essential to success, this is not obviously correct.
  - To be sure, tough state oversight and heavy penalties discouraged asset stripping. (Contrast the situation in Russia after Perestroika.) But will this remain true with political and social liberalization?
  - Continuing prejudice against private property meant that there was no place to hide stripped assets. (Will this remain true with growth of financial markets?)
Further reform responded to these problems

- The exchange rate was stabilized and unified in 1994. Inflation was brought down.
- The exchange rate was then pegged to the dollar in 1997.
- Exports and inward foreign direct investment were encouraged. Private enterprises were increasingly allowed. Starting in 1999 private enterprises did not have to go through state trading companies in order to export.
- Export growth surged ahead at 40% per annum.
- Growth accelerated again and became less uneven.
- Reform and liberalization (of finance for example) have continued.
But China is still a mixed economy

• We hear about new private enterprises, mainly foreign-investment enterprises, along the coast that act just like companies in market economies, setting their own prices, hiring workers freely etc.

• But planning remains important over much of the economy.
  – The prices of utilities, public transport, coal, natural gas, oil, gas and indirectly food (due to state-sponsored agricultural inventory management programs) are all set by the state. So are interest rates, exchange rates, bank credit lines and bond prices. These are all set by the National Development and Reform Commission, contemporary counterpart to the old planning agency.
  – Similarly, much investment is decided by the National Development and Reform Commission, which directs resources to state-owned enterprises (and by managers of those enterprises, who equate scale with success), and financed by state banks.

• So, increasingly, China has a hybrid system of private ownership and administered pricing. The question is whether this hybrid system can continue to allocate resources efficiently.
How then should we interpret China’s growth and reform experience?

- There exist two interpretations (as you will see from the readings for today), namely:
  - The *experimental* view
  - The *convergence* view
Experimental Interpretation

• The authorities are groping toward the creation of a unique kind of Chinese social market economy.
• Reforms have been gradual, incremental.
• Slow reform has minimized social conflict and instability.
• Incremental approach has allowed the authorities to avoid mistaken policies.
• Conclusion drawn by exponents of this interpretation is that the model could also have been used successfully by other transition economies.
Convergence Interpretation

• China is gradually converging to standard model of market capitalism
• Its growth was fast despite the slow pace of reform, not because of it.
• The slow pace of change and repeated reversals reflect conflict within the country over direction of reform, not a theory of experimentalism.
• Special circumstances (unusually large share of agriculture combined with high population density on the land, small size of SOEs) made possible rapid growth despite slow reform.
• Implication is that the model would not have worked in other transition economies.
Cross-Country Evidence

• Can we use international comparisons to shed light on this controversy?

• A cross-country growth model can entirely explain Chinese growth from 1979 through 1995 by invoking:
  – initial per capita income,
  – favorable physical access to sea lanes
  – export orientation,
  – proportion of labor force in low-wage agriculture
  – stable monetary and fiscal policies

• Implication: distinctive Chinese institutions and policy strategies added (and subtracted) nothing. They were neither the source of the country’s rapid growth nor a barrier to it.
This is also more or less what this figure would have told us

• That is, given the starting point (and the opportunity to grow fast simply by removing past distortions), China has grown more or less at the pace one would have predicted from the performance of other Asian economies previously.
  • Less so recently, to be sure.
But exactly how the Chinese implemented their reform and liberalization was distinctive

- They liberalized state-owned enterprises slowly, compared to the former Soviet Bloc economies that took Western advice.
  - 1979-: managers could make decisions regarding bonuses, how and what to produce, market and how to price. Prices of outputs liberalized.
  - 1983: Managers would sign contracts about taxes and profits to be turned over, but losses were forgiven.
  - 1985-: prices of inputs liberalized. Small SOEs collectivized.
  - 1990s: Privatization of small SOEs. 175 property rights exchanges were established to transfer ownership.
  - Control of most SOEs transferred to local and regional governments. They see no particular advantage to having SOEs as opposed to a thriving local economy. They have been privatizing them at an accelerating pace.
  - Turning large SOEs into joint stock companies to strengthen market discipline on managers. But shareholders have few rights. Can corporate governance be effective in this setting?
Results?

• Throughout, the productivity and profitability of the SOEs has been disappointing.

• The only reason this has not held back Chinese economic performance is that the industrial sector, dominated by SOEs, was small at the outset of the transition.

• What differed between China and other transition economies, in other words, was not a superior policy strategy toward this problem but different initial conditions.
So why not go faster on SOE reform?

• SOEs continue to be important employers (although SOE employment has fallen by 50 m.).
• In a country where only 1 in 7 workers has some form of social insurance, more rapid downsizing of SOEs could fan political unrest.
• SOEs provide housing, health care, schooling, other social services.
• Absent a social safety net, SOE reform threatens essential protections for many families.
• And until the private sector ramps up further and the government enhances its revenue raising capacity, there are few alternative ways of providing these services.
So for how long is China’s present growth model sustainable?

- In pursuing a model of export led growth sustained by a stable, undervalued currency and high rates of capital formation, China is following the same model as Japan, Korea, Taiwan, Hong Kong, and Singapore.
- TFP calculations suggest that this strategy is very similar to its predecessors, and similarly based on extensive growth.
- At some point, China will have to move to more intensive growth. It is already beginning to move up the product ladder.

Table 1. Sources and aspects of growth (1978-2005) *
(average annual increase, in percent)

<table>
<thead>
<tr>
<th></th>
<th>1978-93</th>
<th>1993-2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP growth</td>
<td>9.7</td>
<td>9.6</td>
</tr>
<tr>
<td>Employment growth</td>
<td>2.5</td>
<td>1.1</td>
</tr>
<tr>
<td>Labor productivity growth</td>
<td>7.0</td>
<td>8.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>From TFP growth</td>
<td>3.3</td>
<td>2.8</td>
</tr>
<tr>
<td>of which: from reallocation of labor b/t sectors</td>
<td>1.3</td>
<td>1.1</td>
</tr>
<tr>
<td>From increasing H/L</td>
<td>0.5</td>
<td>0.2</td>
</tr>
<tr>
<td>From increasing K/L ratio</td>
<td>3.2</td>
<td>5.3</td>
</tr>
<tr>
<td>Memorandum items (in percent)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment/GDP ratio (period average)</td>
<td>29.9</td>
<td>36.8</td>
</tr>
</tbody>
</table>

Source: NBS, and staff estimates.
But the model probably still has some time yet to run

• China still has 200 m. underemployed workers in ag. If the overall economy grows at 10% a year, it can absorb 10 m. of them annually. So China can maintain its present model of extensive growth, which is supported by abundant supplies of cheap labor, for at least another two decades, assuming that 10% is an upper bound on growth.

• Another way of putting the point is that the distribution of employment between ag, ind and services is the same as in the US 100 years ago.
Challenges going forward

- Weakness of banking system. Stock of bad loans is 50% of GNP, banks having been directed to extend credit to loss-making SOEs. “Commercialization” of banking system may not be enough to solve this problem.
- Absence of effective shareholder rights means that market discipline on loss-making banks and SOEs remains weak.
- Protectionist pressure from US
- Inequality
- Heavy resource and energy dependence
- Controlling inflation and credit growth (and moving to a more appropriate exchange rate policy).

- Let me talk about some of these now, in turn.
Inequality problem

• Urban real incomes have been growing by 12 per cent a year, but rural real incomes have been growing by only 6 per cent.
• The urban-rural income gap is one of the largest in the world.
• Social welfare is benefiting less than one might expect: thus, infant mortality has been falling more slowly than in other Asian countries that have been growing more slowly than China (including the Philippines, Bangladesh and Vietnam).
• This is leading to large scale migration from the countryside to the cities, in turn creating a variety of social problems.
China Growth Challenge – Income Inequality

Per Capita Annual Income of Urban and Rural Households (RMB)

- Rural incomes in 2005 were 35% of urban incomes.
- Most recent GINI index high at 0.53. (Chinese Academy of Social Sciences).

Source: China Statistical Yearbook
How to fix this:

• Spend more on public health (China spends only 2/3 as much, relative to GDP, as other countries with its per capita GDP)
• Spend more on public education (China spends only half as much).
• Provide better treatment to farmers whose land is being alienated in order to reallocate it to expanding urban uses (presently they get little when displaced).
• Provide better infrastructure for the interior of the country.
Energy problem

- China has coal, but little oil and natural gas.
- Its imports of energy are growing at 30 per cent per year.
- Much of this comes from politically unstable countries, so this is a source of vulnerability.
What to do:

- Residential heating is inefficient: better standards could be applied to new residential construction.
- Retail price of gas is below even US levels; this encourages motorization.
- Enterprises emitting greenhouse gases could be taxed, and a form of tradable permits could be adopted.
- Construction standards could be applied to new residential heating is inefficient: better.
• And, if we have time:
Currency controversy

• U.S. has singled out China as aggravating the U.S. trade deficit by “manipulating” its currency.

• In part this may reflect a tendency for U.S. politicians to shift the blame for a home-grown deficit. But China’s currency appreciation clearly has not kept up with productivity.
The debate

• Point: China is doing perfectly well with a stable, competitively valued exchange rate.
  – Growth is exceeding 10 per cent.
  – Why mess with success?
  – Why kill the golden goose?
  – Revaluation would in fact slow growth and slow the rise in living standards by slowing exports and compounding problems in the financial sector.

• Counterpoint: The economy needs a better balance between consumption and investment.
  – China’s residents expect higher living standards, which is understandable.
  – The country can’t continue to save and investment 50 per cent of GNP productively.
  – Large surpluses are aggravating global imbalances.
  – There is the danger of a protectionist backlash, especially after the 2008 presidential election.
The reforms of July 21, 2005 were the Chinese authorities’ attempt to square the circle.

- Exchange rate was revalued against the dollar by 2%.
- A multi-currency basket was proposed as the reference for future policy.
- Chinese authorities promised to make greater use of their +/- 0.3% daily fluctuation band.
- In reality, the rate against the $ has remained very stable.
- Cumulative appreciation in the last 2 ½ years has been only 12 per cent.
- And this has done to little to damp down growth, which still shows signs of overheating, or to contain China’s current account surplus, which has continued to expand.
So what can China do to move smoothly to greater flexibility?

- Exit from the peg while global growth is strong, supporting Chinese exports.
- Exit while Chinese growth is strong, supporting confidence.
- Exit while China still has residual capital controls to prevent it from being overwhelmed by speculative capital inflows.
- Require enterprises to pay out dividends (half of all savings is retained earnings, not all of which is being invested productively).
- Provide fiscal support while demand is rotating away from net exports.
- Build a social safety net so that households don’t have to engage in so much precautionary saving
History supports these policies

• Japan was able to exit its dollar peg in 1971 without precipitating a recession.
• There was only one quarter of recession, and then strong growth resumed.
• Why?
  – Confidence in the Japanese economy was strong.
  – Global economy was expanding strongly
  – Government provided fiscal support (big tax cuts and expenditure increases)
• But Japan also made the mistake of not letting the yen fluctuate more freely against the dollar. As the dollar fell, inflation in Japan rose to double digit levels. Central bank tightening and recession followed.
Some final thoughts
Some final thoughts

• What would it take China’s GDP to overtake the United States’ GDP in, say, 20 years?
Some final thoughts

• What would it take China’s GDP to overtake the United States’ GDP in, say, 20 years?
• Answer: China would have to grow by 10% a year over that 20 year period, while the US grew by only 2 per cent.
Some final thoughts

• What would it take China’s GDP to overtake the United States’ GDP in, say, 20 years?
• Answer: China would have to grow by 10% a year over that 20 year period, while the US grew by only 2 per cent.
• Is this plausible?
Some final thoughts

• What would it take China’s GDP to overtake the United States’ GDP in, say, 20 years?
• Answer: China would have to grow by 10% a year over that 20 year period, while the US grew by only 2 per cent.
• Is this plausible?
• The US actually grows by 2.5-3% a year. No obvious reason it should slow down.
• And there are good reasons to think that China will slow down. Namely...
Reasons why Chinese growth will slow

• China is still benefitting from unwinding its failed economic experiment. But this “advantage” will not operate forever.

• The low exchange rate that has made exporting easy and credit abundant is not sustainable.

• And demographic factors will turn against the country.
• But never say never...