40 WEB Transition Economies: Russia and China

Two of the most profound economic events of the 1980s and 1990s were the collapse of communism in the Soviet Union and the rapid emergence of the market system in China. Russia (which emerged from the breakup of the Soviet Union) and China are perhaps the world's most significant developing economies: Together they constitute 20 percent of the world's surface area and 23 percent of the world's population. (Global Perspective 40W.1 compares salient facts about China, Russia, and the United States.)

In this bonus web chapter, we examine the transition of Russia and China to market economies. But first we need to understand the ideology, institutions, methods, and difficulties of central planning.

Ideology and Institutions

To understand the command economies of the Soviet Union (prior to its collapse) and China (prior to its market reforms), we must look back at the Marxian ideology that gave rise to central planning. Russia and China each has a unique history, but both nations established command economies following communist revolutions based on the ideas of Karl Marx. Those revolutions established the Communist Party as the dominant force in the political and economic life of both nations. The Russian Revolution of 1917 produced a communist dictatorship under Vladimir Lenin and, later, Joseph Stalin and others. The Chinese Revolution of 1947 led to a communist dictatorship under Mao Zedong. At the heart of the communist ideology was belief in state (or communal) ownership of capital and land.

The Communist Party in the Soviet Union and China viewed itself as the representative of the *proletariat* (the working class) and the *peasantry*. On the basis of Marxist-Leninist and Marxist-Maoist doctrines, the communists envisioned their system as the inevitable successor to capitalism, a system they believed was plagued by internal contradictions resulting from the private ownership of capital and land. To communists, the market system was chaotic, unstable, and inequitable. Markets bred inflation, unemployment, discrimination, and an unfair distribution of income. In contrast, the communists viewed central planning as a way to organize the economy's resources rationally, to meet basic human needs, to achieve macroeconomic stability, to provide greater equality, and to end exploitation of labor by capitalists.

Marxists believe in a **labor theory of value,** the idea that the value of any good is determined solely by the

GLOBAL PERSPECTIVE 40W.1

Selected Statistics: China, Russia, and the United States

Comparisons of national data reveal large differences among China, Russia, and the United States. (Latest comparable data.)

	China	Russia	United States
Square miles (thousands)	9561	17,075	9364
Population (millions)	1271.9	144.8	284.0
Output per capita	$890	$1750	$34,870
Share of labor force in agriculture (%)	74	14	3
Male life expectancy (years)	69	59	74

Source: World Bank, www.worldbank.org/; International Monetary Fund, www.imf.org/; CIA *World Fact Book,* www.cia.gov/.

amount of labor required for its production. Because of the capitalist institution of private property, Marxists argue, capitalists own the machinery and equipment necessary for production in an industrial society. Since the working class owns no such capital goods, it is dependent on capitalists for its employment and its livelihood. Workers lack bargaining power because capitalists can dismiss labor agitators and replace them from the large "reserve army of the unemployed." Capitalists exploit workers by paying them a wage far below the value of workers' production. That is, capitalists can and will expropriate the remaining value of workers' labor as profit, or what Marx termed **surplus value.** Although all value comes from labor, in the capitalist system labor does not receive all value. In the communist planned economic system, the state as an agency of the working class extracts surplus value and distributes it through subsidies for public or quasi-public goods (for example, education, transportation, health care, and housing).

The goal of communism was to overthrow capitalism and to replace it with a classless society devoid of human exploitation. The Communist Party viewed itself as the vanguard of the working class and peasantry, and its actions were held to be in keeping with the goals of those groups. In reality, the Communist Party was a strong, one-party dictatorship that usually pursued the interests of its party members.

40W.1 Labor theory of value

State Ownership and Central Planning

Two major features of the prereform and precollapse economies of Russia and China were (1) state (government) ownership of property resources and (2) central planning.

State Ownership Under **state ownership** the Soviet and Chinese governments owned all land, natural resources, transportation facilities, communication networks, and banking facilities and virtually all industry. The government also owned most retail and wholesale enterprises and most urban housing. Many farms were state-owned; most farms, however, were government collective farms, essentially cooperatives to which the state assigned land.

Central Economic Planning Both nations had "command" economies that relied on **central economic planning** and were government-directed rather than market-directed. Choices that are made through the market in the United States and other market economies were made by bureaucratic decisions in the Soviet Union and China. Through a central 5-year or 7-year plan, the governments attempted to coordinate all economic activities as if they were parts of a large enterprise directed from central headquarters.

Planning Goals and Techniques

Although central planning was far more complete in the Soviet Union than in China, both nations relied on direction from the central government. The following generalizations describe the functioning of central planning in both countries.

Industrialization (and Rural Development in China) The main goals of the Soviet Union were rapid industrialization, economic growth, and military strength.

It achieved those goals through extensive investment in heavy industry (such as steel, chemicals, and machine tools) and the allocation to the military of a large portion of domestic output. Along with manufacturing, China emphasized rural development, and small-scale industries were scattered throughout the rural areas. But in both countries the central planners pretty much neglected consumer goods industries and the distribution and service sectors.

Overcommitment of Resources In their efforts to increase GDP, both the Soviet Union and China often overcommitted their economies' available resources. As a result, not every planning target could be achieved. In particular, the production of consumer goods often suffered, since planning priorities emphasized heavy industry, rural development, and the military.

Mobilization of Resources At first, both the Soviet Union and China achieved some measure of industrialization and economic growth through the mobilization of labor, capital, and raw materials. In the early years of planning there was substantial surplus labor in agriculture, which the planners reallocated to industrial production. Both China and the Soviet Union induced or coerced a larger proportion of the population to enter the labor force. They achieved economic growth mainly by increasing inputs rather than by using fixed amounts of inputs more productively. In the 1930s and again in the years following the Second World War, that strategy produced higher rates of economic growth than the rates achieved by the United States and other industrialized nations.

Allocation by Directives The central planners directed how inputs would be allocated among industries and firms, thereby determining the composition of output. The result was that planning directives, not a market system, served as the allocative mechanism.

Government Price Setting Government, rather than the forces of supply and demand, set the prices of resources and products. Planners rarely changed the prices of consumer goods and, as a matter of social policy, set the prices of "necessities" such as housing and food at low levels. Rents on housing in the Soviet Union, for example, averaged only 3 percent of income and remained at that level between 1928 and 1992. Government also set the prices of resources and the prices of each firm's output. The prices were used primarily as accounting devices to gauge a firm's progress in meeting its production goals. The emphasis of the various 5- or 7-year plans was on the quantity of output, not on its cost or price.

Self-Sufficiency The Soviet Union and China each viewed itself as a socialist nation surrounded by hostile countries. Neither nation trusted the other. Each maintained a strong military presence along their common border and vied for influence among the developing countries. Because of the hostility they perceived around them, the central plan in each country stressed economic self-sufficiency. Each country severely restricted trade with western nations, and neither country encouraged easy convertibility between their respective currencies and those of other countries. The Soviet Union and China traded mostly with other communist nations such as East Germany, Poland, Hungary, Cuba, North Korea, and Vietnam.

Passive Macroeconomic Policies The economies of both the Soviet Union and prereform China were quantity-directed systems in which money and prices played only a limited role in resource allocation. Monetary policy (changes in the money supply and interest rates) and fiscal policy (changes in government spending and taxes) were passive rather than active. Unemployment—but not underemployment—was quite low, partly the result of ambitious planning targets and various admonitions and "educational" campaigns designed to promote work. But low unemployment perhaps had more to do with overstaffing (managers could not fire redundant workers) and a lack of interest in cost minimization (gross output was the overriding objective). It also had to do with the massive, highly labor-intensive public works projects that both nations initiated in order to build infrastructure and glorify the socialist state.

Both countries used direct government price setting as the primary means of controlling the price level. By not allowing prices to rise, they repressed inflationary pressures. The controlled prices, however, created severe shortages of consumer goods.

Problems with Central Planning

Central planning was fraught with serious problems that contributed to the collapse of the Soviet economy and to the market reforms in China.

The Coordination Problem

As you know, the market system is a powerful organizing force that coordinates millions of individual decisions by consumers, resource suppliers, and businesses and, in so doing, promotes the efficient use of scarce resources. Substituting central planning as a coordinating mechanism creates a significant **coordination problem.**

Example: Suppose that an enterprise in Moscow or Beijing is to be set up producing shoes. The central planners must establish a realistic annual production target, for example, 1 million pairs of shoes. They then must make available all the necessary inputs—labor, electric power, leather, rubber, thread, nails, machinery, transportation—for the production and delivery of those 1 million pairs of shoes. When the product is a more complex one, such as farm tractors, the planners' coordination problem is greatly compounded.

Because the outputs of many industries serve as inputs to other industries, the failure of any single industry to achieve its output target causes a chain reaction of repercussions. For example, if iron mines, for want of machinery or labor or transportation, do not supply the steel industry with the required inputs of iron ore, the steel mills will be unable to fulfill the input needs of the many industries that depend on steel. Those steel-using industries (such as automobile, tractor, and transportation) will be unable to fulfill their planned production goals. Eventually the chain reaction will spread to all firms that use steel as an input.

The coordination problem becomes more difficult as the economy grows. Early planning under Stalin in the late 1930s and 1940s and under Mao in the 1950s resembled the highly focused planning of capitalist nations in coordinating resources to fight the Second World War. The Communist Party established a few key production goals and directed resources toward fulfilling them regardless of the cost or their effect on consumer welfare. But as time passed, the early "campaign planning" in the Soviet Union and China gave rise to increasing complexity. Products and production processes grew more sophisticated, and the number of industries that had to be planned for increased. Planning techniques that had worked for the simpler economy proved inadequate and inefficient as the economies grew. Bottlenecks and production stoppages occurred with regularity.

A lack of reliable success indicators adds to the coordination problem under central planning. Market economies have a single, trustworthy success indicator: profit. Profit or loss measures each firm's success or failure. Profit depends on consumer demand, production efficiency, and product quality. In contrast, the major success indicator of the Soviet and prereform-China economies was the achievement of a quantitative production target assigned by the central planners. Production costs, product quality, and product mix became secondary considerations. Managers and workers often sacrificed product quality, since they were being awarded bonuses for meeting quantitative, not qualitative, targets. If meeting production goals meant sloppy assembly work, so be it.

It is difficult at best for planners to assign quantitative production targets without unintentionally producing distortions in output. If the production target for an enterprise manufacturing nails is specified in terms of *weight* (tons of nails), the producer will tend to produce only large nails. But if its target is specified as a *quantity* (thousands of nails), the producer will be motivated to produce all small nails, and lots of them!

The Incentive Problem

In the capitalist system, profits and losses not only signal success and failure but also act as incentives for firms to increase or decrease production. If there is a shortage of a given product, the price and profitability of that product will rise, and producers will be motivated to expand production. Conversely, if there is a surplus of a product, prices and profits will fall, and producers will be motivated to reduce output. Producers seek improved product quality and production techniques because both increase profitability. Workers seek to improve their job skills and work harder in order to raise their incomes, as higher pay can be translated into a higher standard of living.

The reason such actions and adjustments do not occur under central planning is that there is an **incentive problem.** Central planners determined the output mix of the Soviet Union and prereform China. When they misjudged how many automobiles, shoes, shirts, and chickens were wanted at the government-determined prices, persistent shortages and surpluses of those products arose. But as long as the managers who oversaw the production of those goods were rewarded for meeting their assigned production goals, they had no incentive to adjust production in response to the shortages and surpluses. And there were no fluctuations in prices and profitability to signal that more or less of certain products was desired. Thus, many products were unavailable or in short supply, while other products were overproduced and sat for months or years in warehouses.

The centrally planned system also lacked entrepreneurship. In market systems, the large potential monetary rewards to innovators serve as a stimulus to technological advancement. Moreover, firms that improve their products or production processes realize a profit, while those that do not eventually suffer a loss. Central planning does not trigger the profit motive, nor does it reward innovation and enterprise.

The route for getting ahead in the centrally planned economies of the Soviet Union and China was through participation in the political hierarchy of the Communist Party. Moving up the hierarchy meant better housing, better access to health care, and the right to shop in special stores. Meeting production targets and maneuvering through the minefields of party politics were measures of success in "business." But a definition of success based solely on political savvy is not conducive to technological advance, which is often disruptive to existing products, production methods, and organizational structures.

Indeed, in both the Soviet Union and prereform China, managers and workers often resisted innovation. Since enterprises were essentially government-owned monopolies, no private gain accrued to managers or workers for improving product quality or developing more efficient production techniques. Managers and workers actually resisted government-imposed innovations, because higher and sometimes unrealistic production targets usually accompanied innovations.

The lack of competition also discouraged innovation. There were no new start-up firms driven by the profit motive to introduce better products, superior managerial techniques, or more efficient production methods. Similarly, the goal of economic self-sufficiency isolated Soviet and Chinese enterprises from the threat of competition from imported goods. Enterprises went on producing the same products with the same techniques, even as both the products and the techniques grew increasingly obsolete.

Finally, workers lacked motivation to work hard because there were so few material incentives. Because of the low priority assigned to consumer goods in the production plans, only a limited array of inferior products and services was available to consumers. While hard work might result in promotions and bonuses, the increase in money income did not translate into a proportionate increase in real income. Why work hard for more income if there is nothing to buy? As a Soviet worker once lamented to a western journalist: "The government pretends to pay us and we pretend to work."

QUICK REVIEW 40W.1

- Marxian ideology is based on the labor theory of value and views capitalism as a system that expropriates surplus value from workers.
- The main features of the former Soviet economy and the prereform Chinese economy were state ownership of property resources and central economic planning.
- Central plans in the Soviet Union and China were characterized by (a) an emphasis on rapid industrialization, rural development (in China), and military power; (b) resource overcommitment; (c) growth through the use of increasing inputs rather than through greater efficiency; (d) resource allocation by government directive rather than by market; (e) government determination of price; (f) an emphasis on economic self-sufficiency; and (g) passive monetary and fiscal policies.
- Two major problems of central planning are (a) the difficulty of coordinating inputs and outputs and (b) the problem of fostering incentives, including those that prompt technological advance.

Collapse of the Soviet Economy

The problems of central planning contributed to market reform in China, but led to the collapse of the Soviet economy. We will consider Russia first and then China.

In 1991 the Soviet Union broke into several newly independent states, the largest of which is the Russian Federation (Russia). The immediate reason for the collapse was political: a clumsy, failed attempt of old-line communists to take control of the government. (The failed coup led to the ascendancy of Boris Yeltsin in Russia and to independence for the former republics of the Soviet Union.) But a number of economic problems, some stemming directly from the failures of central planning, contributed to the collapse of the Soviet Union.

Declining Growth

Soviet economic growth in the 1950s and 1960s (at least as measured by highly questionable Soviet statistics) was quite impressive: The economy grew at roughly a 5 to 6 percent annual rate. But economic growth fell to 2 to 3 percent annually in the 1970s and to less than 2 percent in the mid-1980s. In the last year or two before the system broke down, real output was falling sharply.

Poor Product Quality

Further evidence of failure was the poor quality of Soviet goods. In such vital manufacturing sectors as computers and machine tools, Soviet technology lagged some 7 to 12 years behind that of the United States, Japan, and Germany.

Technology lagged even more in consumer goods, which were of notoriously poor quality and limited choice. Durable goods such as automobiles, large household appliances, and consumer electronics were primitive by U.S. standards. Also, widespread shortages of basic goods, interminable shopping lines, black markets, and corruption in product distribution characterized the consumer sector.

Lack of Consumer Goods

Not only were consumer goods of poor quality, but they were also in short supply. In the early decades of Soviet communism, the government established a "social contract" with its citizens to the effect that, by enduring the sacrifices associated with rapid industrialization and growth, consumers would be rewarded with abundance in the future. The failure of the system to meet such expectations contributed to frustration and to deteriorating morale among consumers and workers. The rewards for past sacrifices never materialized.

Large Military Burden

Large Soviet military expenditures of 15 to 20 percent of domestic output, compared to 6 percent in the United States, absorbed great quantities of resources that otherwise would have been available for the development and production of consumer and capital goods. The government's policy during the Cold War era was to channel superior management and the best scientists and engineers to defense and space research, a policy that adversely affected technological progress and the quality (and thus the productivity) of capital goods in the civilian sector.

Agricultural Drag

By the standards of market economies, agriculture in the Soviet Union was a monument to inefficiency and a drag on economic growth. This sector used about 30 percent of the nation's labor force and roughly 25 percent of its annual investment. Output per worker was only 10 to 25 percent of the U.S. level. The low productivity of Soviet agriculture was attributable to many factors: relative scarcity of good land, erratic weather patterns and growing seasons, serious errors in planning and administration, and, perhaps most important, the lack of an effective incentive system.

Formerly a major exporter of grain and other agricultural products, the Soviet Union became one of the world's largest importers of farm goods. The reliance on imports seriously drained the foreign currency reserves that the leadership might have used to import capital goods and technology from the West.

The Russian Transition to a Market System

The former Soviet republics, particularly Russia, have committed themselves to making the transition to a market economy. The Russian economy has experienced dramatic reform since 1992, when Boris Yeltsin succeeded Mikhail Gorbachev as Russia's president. Reforms are slowly continuing under Vladimir Putin, who succeeded Yeltsin in 2000.

Privatization

To encourage entrepreneurship, Russia has privatized (transferred to private owners) much government property—housing, factories, machinery, and equipment. Many new firms have been created, with more than two-thirds of the former state-owned enterprises now privatized. Ninety percent of the nation's small companies are now privately owned, as are 80 percent of the service sector companies.

The privatization process involved two phases. In the first phase, the government gave vouchers, each with a designated monetary value, to 40 million Russian citizens. Recipients could then pool their vouchers to purchase enterprises. The second phase, which began in 1994, permitted investors to purchase state enterprises for cash. This development, which enabled foreign investors to buy Russian enterprises, attracted much-needed direct investment from abroad. It also enabled a handful of business groups led by so-called oligarchs to gain control over the production assets in several sectors of the Russian economy. In 1995 a "loans-for-shares" program enabled these groups to strengthen their grip on the economy. Under this plan, the oligarchs loaned the financially strapped Russian government money in exchange for ownership shares and management rights in the remaining major state industries, such as natural gas, oil, nickel, and electricity. Most of Russian enterprise is now in private hands.

Land reform has progressed more slowly. Although Boris Yeltsin decreed in 1996 that Russian peasants could buy and sell land, it will take many years to develop a functional market for farmland. Farmers, who have worked for decades on collective farms, fear the uncertainties and problems that might accompany privatization and free markets.

Price Reform

Russia recognized the need do away with government-controlled prices. The problem was that prices in the Soviet economy bore no relationship to the economic value of either products or resources. As we noted earlier, the Soviet government fixed both input and output prices and in many instances did not change those prices for many years. Because input prices had little, if any, relationship to the relative scarcities of resources, it was impossible for firms to minimize their true production costs.

Example: High prices of energy have prompted firms in market economies to greatly reduce energy use per unit of output. But the government underpriced energy in the former Soviet Union. Consequently, its industries used two or three times as much energy per unit of output as did those in leading industrial countries.

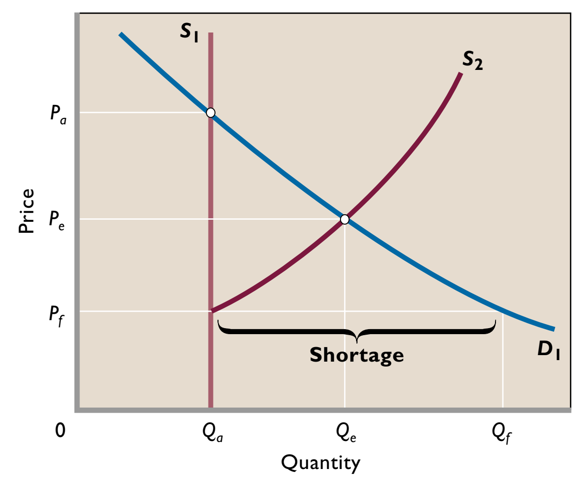
Not only was energy priced far below its true price, but so too were many basic consumer goods. The Soviet rationale for setting low prices was to ensure that everyone could afford such goods. As Figure 40W.1 shows, that pricing policy helps explain the chronic product shortages and long lines that had frustrated Soviet consumers. The perfectly inelastic supply curve S_1 reflects the fixed output of, say, shoes called for by the central plan. The demand curve D_1 slopes downward, as it would in a market economy. In view of S_1, the equilibrium price would be P_a. But in an effort to make shoes accessible to those with lower incomes, the government fixed the price at P_f.

The result was that not everyone who wanted shoes at P_f could obtain them. Because the quantity demanded Q_f at P_f was greater than the quantity supplied Q_a, a shortage of shoes occurred. Similar shortages in other markets explain the long lines of consumers and the empty shelves the rest of the world saw in television news clips. It also explains the black markets in which goods were sold at much higher prices than those fixed by the central planners.

The task, then, was to eliminate these price controls. In January 1992, the government decontrolled about 90 percent of all prices. As a result, prices immediately surged.

FIGURE 40W.1

The effects of centrally planned prices. Central planners in the Soviet Union established below-equilibrium prices such as P_f on many basic consumer goods to allow low-income persons to buy them. But at such low prices, quantity demanded (here Q_f) exceeded quantity supplied (set by planners at Q_a). The resulting shortage meant that many consumers could not obtain the goods they wanted. The elimination of government price setting initially increased price from P_f to P_a. But with privatization in Russia, the higher price stimulated greater output along supply curve S_2. Price therefore settled at P_e while output jumped from Q_a to Q_e.



The decontrol of prices, however, had several positive effects. As Figure 40W.1 shows, the decontrol at first raised prices rapidly, as from P_f to P_a in this example. There simply was no mechanism for firms to increase the amount of output supplied in response to the price increases. But with privatization, the higher prices signaled profit opportunities to enterprises and thus triggered a positive supply response. The relevant supply curve then took on its more familiar upward slope as in S_2, and equilibrium output increased from Q_a to Q_e. Equilibrium price moved downward from P_a to P_e. More generally, prices began to reflect more closely the marginal cost to the Russian economy of producing goods and helped direct resources to where they were best suited to meet consumer wants.

Promotion of Competition

As we have seen, the industrial sector of the former Soviet Union consisted of large state-owned single-firm "industries" that produced about 30 to 40 percent of total industrial output. When several enterprises produced a certain product, the planning process coordinated their actions to create a cartel. In short, most production took place under monopoly or near-monopoly conditions.

Russian reformers realize that an efficient market economy requires the dismantling of these public monopolies and the creation of antitrust laws to sustain competition. But only limited "demonopolization" has accompanied privatization so far. In many industries, private monopolies have simply replaced public monopolies. Joint ventures between Russia and foreign companies are one avenue for increasing competition, and Russian legislation has made it easier for foreign firms to invest directly in Russia. A future avenue might be government antitrust actions to break firms into competing entities. **(Key Question 5)**

Making the Ruble Fully Convertible

The Soviet economy had been isolated from the world economy for 75 years. A key step in the transition to a market economy was to open the economy to international trade and finance. Russia has had modest success in this endeavor; for example, it has made the ruble a fully convertible currency. This means that the ruble is acceptable in exchange for other currencies. But because of hyperinflation in Russia and a series of political and economic crises, the ruble plunged in value from 90 rubles = $1 in 1992 to 5800 rubles = $1 in 1997. The free fall of the ruble was detrimental to Russia's world trade, since no one wanted to buy or hold rubles. The trade that did occur usually involved dollars or simply barter.

On January 1, 1998, Russia recalibrated its currency by removing three zeros. For example, a 10,000-ruble bill became a 10-ruble bill. That conversion immediately altered the exchange rate from $1 = 6000 rubles to $1 = 6 rubles. After the Russian government defaulted on several large international loans in 1998, the ruble fell from $1 = 6 rubles to $1 = 23 rubles in a matter of days. Since 1998 the dollar-ruble exchange rate has declined to about $1 = 31 rubles.

Price-Level Stabilization

The transition to free markets brought with it hyperinflation. In response to the decontrol of prices in January 1992, prices tripled and quadrupled almost overnight. Russian households had stored huge amounts of currency and deposits at savings banks during years of waiting for scarce consumer goods to become more abundant, and this so-called ruble overhang helped fuel inflation once prices were decontrolled and privatization began to deliver consumer goods to the marketplace.

But the most important source of inflation was the large government deficits financed by increases in the money supply. The deficits in turn had many roots. Privatization of state enterprises caused the government to lose the net revenues (revenues minus costs, or what we call profit) brought in by those firms. The uncertainties inherent in the transition led to general disorder and widespread tax evasion. To ease losses suffered by enterprises during the transition, the government extended massive subsidy credits, financed by printing new money, to both industry and agriculture. Finally, the government increased pensions and welfare benefits by printing yet more money.

Russia's economic reforms, however, did create an independent central bank, and its anti-inflationary monetary policy brought about a significant decline in the rate of inflation. As shown in column 3 in Table 40W.1, inflation declined from 1735 percent in 1992 to 15 percent in 1997. But the printing of money to pay international loans and the collapse of the ruble in 1998 caused rapidly rising prices of imported goods (in rubles) as well as domestic goods. Inflation jumped to 28 percent in 1998 and 86 percent in 1999, before settling back to 21 percent in 2000 and 2001 and 16 percent in 2002. **(Key Question 6)**

Other Major Problems

Along with the successes and difficulties we have noted, the Russian transition to the market economy

TABLE 40W.1

Real GDP Growth and Inflation in Russia, 1992–2002

(1) Year	(2) Growth of Real GDP, Percent	(3) Rate of Inflation, Percent
1992	−19	1735
1993	−11	875
1994	−13	308
1995	−6	197
1996	−2	48
1997	+2	15
1998	−3	28
1999	+5	86
2000	+8	21
2001	+6	21
2002	+5	16

Source: International Monetary Fund, www.imf.org/.

encountered other significant problems, particularly in its early years.

Declining Output: 1992–1996

Real output and living standards declined during the first 5 years of the Russian transition to capitalism. Column 2 of Table 40W.1 documents that real GDP declined in each year between 1992 and 1996, with the worst year being 1992, when real GDP fell by 19 percent. Declines of the magnitudes shown in the table resemble those associated with the Great Depression in the United States in the 1930s.

The causes of the output declines between 1992 and 1996 include (1) rapid inflation, which created an uncertain environment for borrowing and investing; (2) the unraveling of Russia's international trade relationships with the former communist-bloc nations of eastern Europe; (3) bankruptcy and the closing of many former state-owned enterprises that could not survive in a market environment; and (4) the massive reallocation of resources required by the reforms and by a substantial reduction in government spending on the military.

Because real output equals real income, declining real output meant declines in Russian living standards. Farmers, government employees, and pensioners were hit hard, and many workers had to accept deep cuts in real wages in order to keep their jobs. Some workers were owed large amounts of "back pay" because of the inability of their employers to pay wages. At least 30,000 scientists left Russia to work in other nations.

Inequality, Corruption, and Social Costs

Economic inequality increased in Russia in the 1990s. Many people became impoverished while a wealthy class of "new Russians" emerged. Many of the newly enriched citizens gained their wealth through entrepreneurship. Others prospered as executives, managers, and scientists in the newly privatized industries. Still others, however, enriched themselves via corruption and illegal activities. The major disruptions, swift changes, and lack of regulatory oversight that accompanied the transition created many opportunities for corruption and organized crime to expand and flourish.

Considerable friction between gainers and losers, the growth of organized crime, and "crony capitalism" triggered public doubts as to the desirability of a market economy. In particular, most observers now view the loans-for-shares program as a "great grab" of state assets by a handful of Russian oligarchs. Social services also declined during this period. Medical and educational services deteriorated and school enrollments declined. Alcoholism, historically high in Russia, increased sharply and the life expectancy of Russian men declined from 65 to 59 between 1988 and 2002.

Weakness of Government

Another transition problem was the weakness of government in enforcing its laws, including the collection of taxes owed by enterprises and political subdivisions. Widespread tax evasion led to declining tax revenues, enlarged budget deficits, and financial instability. Declining tax revenues further weakened the central government's ability to enforce tax laws, so a kind of vicious circle occurred. Moreover, the reduced revenues crippled the central government's ability to perform other basic functions such as maintaining law and order, providing regulatory oversight of banks and security markets, and providing a social safety net for its citizens.

Recent Revival

Despite these seemingly overwhelming problems, Russia largely "muddled through" the first decade of its transition to capitalism and democracy. The market reforms are now largely irreversible and the severest economic dislocations have ended. Political instability has been significantly reduced under Vladimir Putin, and the Russian economy has recently experienced strong economic growth. Partly because of rising oil production and high oil prices, real output in Russia increased by 5 percent in 1999, 8 percent in 2000, 6 percent in 2001, and 5 percent in 2002. If these growth rates continue, Russia's real GDP will double within 12 years! Along with economic growth has come declining unemployment. Russia's unemployment rate fell from 13 percent in 1999 to about 8 percent in 2002.

The strong recent growth of income and a crackdown on tax cheaters has greatly increased tax revenues. The central-government budget swung from a deficit of 4.2 percent of GDP in 1998 to a surplus of about 3 percent of GDP in 2002. The improved budget situation has also made it easier for the Russian government to police illegal activity and exert regulatory oversight on business and banking activity. The Russian goal of achieving a "normal" market-based economy definitely is closer than it was just a few years ago. Russia has survived a turbulent transition decade and may now be on its way to sustained prosperity. But even optimists agree that it may take several decades for Russia to create a vibrant market economy on the order of the western European nations.

QUICK REVIEW 40W.2

- The former Soviet economy collapsed under the pressure of declining economic growth, poor product quality, a lack of consumer goods, a large military burden, and agricultural inefficiency.
- Russia has committed itself to becoming a capitalistic market economy. Ingredients in its transition from central planning to markets include (a) creating private property and property rights, (b) removing domestic price controls, (c) promoting competition, (d) opening the economy to international trade and finance, and (e) ending inflation.
- The early years of Russia's transition to a market economy were accompanied by declining living standards, increasing income inequality, and social costs such as corruption, organized crime, rising alcoholism, and reduced life expectancy.
- Although Russia still faces difficult economic times, it has made substantial progress in its move from communism to capitalism. Its GDP grew by an average of 6 percent annually between 1999 and 2002.

Market Reforms in China

China has taken a different path in its transition to a market economy. In 1992 Russia pursued a rapid and radical transformation to private property and free markets called "shock therapy" to achieve "irreversibility" of its reforms. China's market reforms began far earlier—in 1978—in a piecemeal, experimental, and gradual manner. In 1992 Russia concluded that its political apparatus, the Communist Party in particular, was an obstacle to economic reform and that political reform (democratization) must precede it. China, in contrast, has sought economic reform under the strong direction of its Communist Party. China's view is that the upsetting of the political system would generate endless debate, competition for power, and ultimate stagnation and failure for its economic reforms. Unlike Russia, China feels that communist dictatorship and a market economy are compatible. China has preserved many of its state-owned enterprises while simultaneously encouraging the creation of competing private enterprises.

Although China's GDP per capita is only $890 compared to Russia's $1750, China has instituted its market reforms without suffering the economic depression that confronted Russia. In fact, China has achieved a 9 percent annual growth of real output over the past two decades (as compared to typical growth rates of 2 to 5 percent for most advanced economies).

Market reforms in China began in 1978 under the leadership of Deng Xiaoping, the successor to Mao Zedong. Deng did not share Mao's utopian vision of an eventual communist economy in which people would work for the glory of the community and monetary incentives would play only a minor role. Instead, Deng recognized that the profit incentives of a market economy could raise China's living standard. But he also realized that only a gradual transition to such an economy could preserve the Communist Party's political control over China. Many Chinese critics of Deng derisively called him "a capitalist roader," implying that he was setting China on the road toward capitalism. As it turned out, those critics were right.

Agricultural and Rural Reform

Market reform in China began in agriculture in 1978, at which time nearly 70 percent of the Chinese labor force was rural. The key elements of the 1978 to 1984 reforms were the leasing of land to individual farmers ("decollectivization") and the establishment of a two-track price system. For the first time, individual farmers were allowed to lease government-owned land (for 15-year periods). Under the two-track price system, farmers had to sell a prescribed amount of farm output to the government at a set price but could sell any surplus in markets at market-determined prices. Farmers were eventually allowed to sell increasing portions of their output at market-determined prices rather than at lower government-determined prices. In 1978 farmers sold only 8 percent of their commodities in competitive markets, but by 1990 that share had risen to 80 percent.

Decollectivization and price reform significantly strengthened production incentives and swiftly moved the Chinese economy toward market-based agriculture. Responding to the profit motive, farmers boosted their productivity by substituting tools for labor, shifting crops toward more valuable commodities, and farming previously untilled land. Agricultural output in China rose dramatically throughout the 1980s. Equally important, the increased productivity in agriculture freed up labor resources to a growing number of privately owned rural manufacturing firms called **township and village enterprises.**

Reform of Urban Industries

The success of reforms in agriculture prompted the central government to extend reforms to the **state-owned enterprises (SOEs)** in urban areas. These enterprises were granted more authority to determine the quantity and variety of their outputs, to make their own employment decisions, and to retain much of their net revenues. (Previously, they had to send the bulk of their net revenues to the central government.) The government also extended the two-track system of prices to nonagricultural products. The SOEs were allowed to buy increasing portions of their inputs at market prices rather than at government-set prices and sell increasing portions of their outputs at market prices instead of having to sell most of it to the government at fixed prices. The share of output sold at market prices rather than at government-set prices went up from 12 percent in 1980 to 66 percent in 1987.

Furthermore, the Chinese government encouraged the formation of nonstate enterprises called **urban collectives**—enterprises owned jointly by managers and their workforces. Like town and village enterprises, these nonstate firms were not subject to the directives of the central plan, so they were far more capable than the SOEs of gauging and meeting consumer wants. The urban collectives experienced explosive growth of output and employment, some of it at the expense of the SOEs. Moreover, the competition among these nonstate enterprises and the SOEs spurred innovation and greater productivity in many of the SOEs.

Special Economic Zones

In 1980 China created **special economic zones (SEZs)** that were open to foreign investment, private ownership, and international trade. Located in coastal regions, these special zones attracted increasing amounts of foreign capital (particularly from Hong Kong). They also increased Chinese exports significantly. As the successes of the SEZs became apparent, China increased their number and scope. The SEZs in China's southern provinces, in particular, became booming enclaves of "near-capitalism." The success of the SEZs relative to other regions in China eventually eroded support for central planning.

Development of Supporting Institutions

The reforms in China also included the building of institutions to strengthen the market system and its macroeconomic control. For example, the Chinese government established the Bank of China as the central bank and gave it the power to regulate the banking system and control the money supply to avoid inflation. The government replaced the system of "net revenue transfers" from state enterprises to the central government with an enterprise tax system. It established a so-called swap market in which Chinese enterprises could trade foreign currency as needed to conduct international business. Finally, it developed a stock market for the exchange of the shares of newly created stockholder-owned corporations.

Transformation of the SOEs

In the 1990s Chinese reformers turned to making state-owned enterprises more "corporatelike." The idea was to replace Communist Party operatives with professional managers who would be independent of the central government. The government also redirected the goals of such enterprises away from social objectives (providing employment, housing, health care, and day care) and toward economic objectives (producing high-quality goods for which there was a demand). This partial "corporatization" of state enterprises, however, exposed the inefficiencies of the SOEs. In the competitive marketplace, many SOEs found that they were producing the wrong goods, in the wrong amounts, using the wrong combinations of inputs. In short, thousands of SOEs proved to be inefficient and unprofitable.

After Deng's death in the mid-1990s, leadership of China passed to Jiang Zemin. In 1997 Jiang and the Communist Party called for consolidation of the major SOEs into 1000 large enterprises that over time will issue stock and become shareholder-owned corporations. The purpose is to make the firms' managers responsive to their shareholders. The government, however, will hold the controlling share of stock ownership in these 1000 corporations. All the other 300,000 state-owned enterprises will be sold to private individuals (or groups) or, if they have no value, will be allowed to go bankrupt.

In 2002 Jiang Zemin relinquished considerable power to Hu Jintao, who is expected to continue Jiang's gradualist approach to reform.

Outcomes and Prospects

Economic reform in China has achieved impressive results, but it is still incomplete in terms of a modern market economy.

Positive Outcomes of Reform

China's economic growth rate in the past two decades is among the highest recorded for any country during any period of world history; it has averaged nearly 9 percent annually since the beginning of reforms in 1978. That means that real output and real income have quadrupled in less than two decades. About 40 percent of this growth has resulted from increases in capital goods. Expanded output and income have boosted domestic saving and investment, and the expansion in capital goods has further increased productivity, output, and income. The rising income has attracted more direct foreign investment. Such investment was about $50 billion in 2002. (China's growth rates for recent years are shown in column 2, Table 40W.2.)

A rapid expansion of China's international trade has accompanied the expansion of real output. Chinese exports rose from $5 billion in 1978 to $266 billion in 2002. These exports have provided the foreign currency needed to import consumer goods and capital goods. Imports of capital goods from industrially advanced countries have brought with them highly advanced technology that is embodied in, for example, factory design, industrial machinery, office equipment, and telecommunications systems.

During the period of reform, China's real GDP and real income have grown much more rapidly than China's population. Per capita income has increased at a high annual rate of 8 percent since 1980. This is noteworthy because China's population has expanded by 14 million a year (despite a policy which encourages one child per family). Per capita income in China is now $890 annually based on exchange rates. But since the prices of many basic items in China are still low and are not totally captured in exchange rates, Chinese per capita purchasing power is estimated to be equivalent to $4260 of income in the United States.

The growth of per capita income in China has resulted from increased use of capital, improved technology, and shifts of labor away from lower-productivity toward higher-productivity uses. One such shift of employment has been from agriculture toward rural and urban manufacturing. Another shift has been from state-owned enterprises toward private firms. Both shifts have raised the productivity of Chinese workers.

TABLE 40W.2

Real GDP Growth and Inflation in China, 1991–2002

(1) Year	(2) Growth of Real GDP, Percent	(3) Rate of Inflation, Percent
1991	9	3
1992	14	6
1993	14	15
1994	13	24
1995	11	17
1996	10	8
1997	9	3
1998	8	−1
1999	7	−1
2000	8	1
2001	7	1
2002	8	−1

Source: International Monetary Fund, www.imf.org/.

Problems

China still faces some significant problems in its transition to the market system, however.

Incomplete Property Rights Since the initial surges in the 1980s, productivity growth in agriculture has stagnated. A possible reason may be that property rights are incomplete. The Communist Party has opposed privatization of farmland, fearing a reversion to the wealthy landlord system it fought to abolish. Instead, the government policy has been to lease land for 15-year periods. But without ownership rights, many farmers are reluctant to invest in farm equipment and capital improvements on the land. The return on such investment depends on the assurance of having land to farm. Thus, further capital investment in Chinese agriculture may depend on the right to buy and sell land.

Macroeconomic Difficulties At times, investment booms in China have resulted in too much spending relative to production capacity. The result has been some periods of 15 to 25 percent annual rates of inflation. (See column 3 in Table 40W.2 for recent Chinese inflation rates.) China has successfully confronted the inflation problem by giving its central bank more power so that, when appropriate, the bank can raise interest rates to damp down investment spending. This greater monetary control, along with slowing economic growth, reduced inflation significantly. In fact, in 1998, 1999, and 2002 China experienced mild deflation.

Nevertheless, the overall financial system in China remains weak and inadequate. Many unprofitable SOEs owe colossal sums of money on loans made by the Chinese state-owned banks (an estimate is nearly $100 billion). Because most of these loans are not collectible, the government may need to bail out the banks to keep them in operation. If China (through its central bank) simply prints additional money to accomplish this bailout, renewed inflation undoubtedly will result.

Unemployment is also a problem. Even though the transition from an agriculture-dominated economy to a more urban, industrial economy has been gradual, considerable displacement of labor has occurred. Western economists estimated that the unemployment rate in China was about 10 percent in 2002. In particular, there is substantial unemployment and underemployment in the interior regions of China.

Integration into the Global Economy China still has much work to do to integrate its economy fully into the world's system of international finance and trade. As a condition of joining the World Trade Organization in 2001, China agreed to reduce its high tariffs on imports and remove restrictions on foreign ownership. In addition, it agreed to change its poor record of protecting intellectual property rights such as copyrights, trademarks, and patents. Unauthorized copying of computer software, movie videos, and compact discs has been a major source of trade friction between China and the United States.

The increase in imports to China that will result from the lower tariffs will probably cause greater unemployment, because many workers will have to shift from highly inefficient industries to more efficient ones.

Geographically Uneven Development Finally, China's economic development varies substantially from region to region. This fact became even more apparent after the former British colony of Hong Kong became part of China. Hong Kong is a wealthy capitalist economy with per capita income of about $24,000. The standard of living is also relatively high in China's southern provinces and coastal cities, although not nearly as high as it is in Hong Kong. In fact, people living in these special economic zones have been the major beneficiaries of China's rapid growth. In contrast, the majority of people living elsewhere in China have very low incomes. Despite its tremendous growth since 1978, China remains a relatively low-income developing country. **(Key Question 8)**

QUICK REVIEW 40W.3

- Market reform began earlier in China (1978) than in Russia (1992) and was based on gradualism rather than on "shock therapy."
- The key elements of China's economic reform are decollectivization of agriculture, establishment of township and village enterprises, price reform, establishment of privately owned urban enterprises, creation of special economic zones, development of support and control institutions, and corporatization of state-owned enterprises.
- Since the beginning of market reform in 1978, China's real output and per capita income have grown at average annual rates of 9 percent and 8 percent, respectively.
- China's economy faces remaining problems of incomplete property rights, underdevelopment of financial institutions, lack of full integration with the world economy, and great unevenness in regional development.

Conclusion

Clearly, Russia and China have taken different paths in their transition to market systems. It may seem that China's path of dictatorship and gradualism is superior economically (political realities aside) to Russia's path of democracy and swift transformation to capitalism. While Russia suffered years of declining output and income, China experienced very high rates of economic growth. But we must not be too hasty in reaching this conclusion. The disorder arising from Russia's abrupt transition to democracy and capitalism may be behind it, placing Russia in a stronger position than China to succeed in the future. The Communist Party's dictatorship in China may or may not last. History suggests that economic freedom often creates demands for political freedom: free speech, freedom of peaceful assembly, freedom to organize political parties, free elections, and so on. Are China's communist leaders willing and able to design a gradual path toward political freedom? Or is China's period of disorder still to come? We have no answers for these questions. Time will tell.

LAST WORD Police Smash Down Smirnov's Doors

Russia Has Privatized Most of Its Former State-Owned Companies. But as Revealed in the Following Article, Privatization Has Not Always Been a Smooth and Easy Process.

MOSCOW (AP)—A squad of masked police smashed through the doors of one of Russia's leading vodka makers Saturday while workers inside threw bottles of vodka at them in a dispute over control of the company. The actions in central Moscow were the latest in a series of tense and often violent confrontations over some of the country's most prominent businesses, and the second this year involving makers of renowned vodkas.

News reports said the officers were enforcing a recent court decision supporting the naming of Sergei Yuzefov as general director of the company. Smirnov head Boris Smirnov said on Russia's NTV television that the court decision was illegal. "I will appeal to the constitutional commission," he said.

Television footage showed officers gathered outside the doors of the Czarist-era building, apparently discussing strategy for entry. Then one yelled "it's burning, it's burning!" As police tore at the doors, a burst of flame appeared and a case of vodka was thrown from inside. Other officers smashed open windows with rods, then crawled through. Inside, employees lay face down on the floor as police surged through the halls.

The conflict stems from this summer's claim by Alfa-Eco, part of one of Russia's largest industrial and banking groups, that it had obtained 50 percent of the shares in Smirnov. The other 50 percent are reportedly held by Boris Smirnov, who has refused to recognize Alfa-Eco's claim, saying that he has never seen supporting documents. "It is an absolutely unprecedented case. It is a result of falsification of documents by a company Alfa-Eco that is known for its dirty deeds," Mikhail Grishin, a security officer for Boris Smirnov, told Associated Press Television News. "This was a true bandit seizure of the building," said Smirnov's lawyer Viktor Shubar.

Late Saturday, police continued to guard the building. The dispute comes as Smirnov fights a court battle in the United States with the distilling giant UDV North America over the latter's use of the name "Smirnoff" for its vodka, which is the best-selling vodka brand in the world. UDV says it acquired the Smirnoff name in 1934 when its predecessor company Heublein bought it from Russian émigré Rudolf Kunett. Kunett it says, had bought the brand from an impoverished Vladimir Smirnoff, one of founder Pyotr Arsenyevitch Smirnov's five children who had left Russia before the Bolshevik Revolution and had Gallicized his name.

In August, a dispute over control of Moscow's Kristall distillery, which owns Stolichnaya and other noted brands, resulted in a two-month standoff in which men with competing claims to being manager occupied the company's executive offices and manufacturing facilities, each backed by private security squads. A court finally ruled on the dispute in late September and the winner, Alexander Romanov, said he considered the dispute resolved.

In the chaotic and often questionable privatizations that followed the collapse of the Soviet Union, disputes over companies have broken out frequently. Workers seized a paper mill last year to protest foreign ownership of the plant, and troops shot one worker when they raided the plant to end the occupation. In September, rival factions brawled for control of a chemical plant in Yekaterinburg.

Source: Jim Heintz, "Cops Smash Smirnov's Doors Down," Associated Press, Nov. 4, 2000. Reprinted by permission of the Associated Press.