

Chapter 2

Paradigm Lost, Paradigm Regained: Common Versus Private Income

The time-honored dichotomy of market and government has framed the entire discussion on post-Communist economies. Less government is equated with more liberty, more private enterprise, and with the development of the market economy. The rest is socialism, equated with big, restrictive Government and state ownership. However, the new phenomenon of post-Communist economies does not fit this unidimensional framework. On one extreme, as we saw in Chapter 1, the facts unearth total socialism in Russia without big, restrictive Government, in an economy that enjoys free transactions and is dominated by private enterprises. On the other extreme, as Gregory C. Chow dissected in a pioneering and largely ignored article, the facts show that a highly successful market economy emerged in China with little liberalization and privatization.¹ These two big anomalies, and many smaller in between, call for redefining socialism, the market economy, and government, and rethinking the relationships among them.

Economic Systems Matter

If socialism is not synonymous with government, then liberation from government does not automatically liquidate socialism and does not, by itself, create a market economy. Socialism runs at a deeper level and so does the market economy. Dismantling a statist socialist economic system, such as central planning, does not necessarily result in the birth of a market economy. Socialism can mutate and become transformed, as we will show, into a new and different kind of socialism.

One big question has been looming in the background during the preceding discussion: Why did excess invoicing and the tax subsidy emerge after central planning, but not elsewhere? What catapulted Russia and similar post-Communist countries in a direction far away from the real market economy? Why don't free, private firms in Western market and developing countries resort to counterfeit spending to enforce the tax subsidy?

The simple answer is that they would if they could. A tax subsidy to the tune of 15-25 percent of GDP is too lucrative a proposition to miss, especially when it is self-enforceable. No lobbying or rent-seeking effort is necessary. It is the best of all possible worlds. However, it is impossible to launch such a system except in the wake of central planning. Firms must be able to put the entire economy on the

¹Gregory C. Chow, "Challenges of China's Economic System for Economic Theory," *American Economic Review* 87, no. 2 (May 1997): 321-327.

brink of total disruption and pose a self-enforceable threat to wipe out the tax base. To accomplish this, they should constitute a vast, all-encompassing network which permeates the entire chain of production. But such a network cannot be built from scratch; in fact, it cannot be built at all. Firms would join in the network only when it already exists, not when they would have to wait without payment, and risk survival while the network is being built and the tax subsidy installed.²

Such a network can only be inherited. It was inherited from central planning, which consisted, effectively, of a single enterprise, the nation-enterprise. Under central planning, individual enterprises acted as the nation-enterprise's branches, sub-divisions, shops, and crews.³ They had one, single, common income which the government redistributed among individual enterprises through hidden cross-subsidies. The abolition of central planning, liberalization, and privatization devolved the nation-enterprise into a ready-made enterprise network for income redistribution.⁴ All it took to convert the nation-enterprise into the enterprise network was to move the government from the top of the fiscal system to the bottom.

The mechanism of inheritance and devolution is not hard to reconstruct. This is an example of the evolution of economic species. Since Thomas Hobbes, we know that if property is not common and is of some value, some claimants and property rights necessarily emerge. After a series of abrogations and confiscations, the government settles property rights one way or another for a time being.⁵ In more advanced economies, where capital stock is a factor of production and yields profits, there always are

²Enrico C. Perotti attributes arrears to the collusion of opportunistic enterprises for extracting government monetary accommodation. See Enrico C. Perotti, "A Taxonomy of Post-Socialist Financial Systems: Decentralized Enforcement and the Creation of Inside Money," *Economics of Transition* 2, no. 1 (January 1994): 71-81 and "Inertial Credit and Opportunistic Arrears in Transition," *European Economic Review* 42, no. 9 (November 1998): 1703-25. But opportunistic enterprises are free-riders and thus their collusion on a massive scale, which requires long sacrifice, is impossible. They would rather jump than embark ship. Possible or not, collusion was unnecessary. The network of enterprises was already in place. Had collusion been possible, arrears, counterfeit spending, and the tax subsidy would have existed in Western market economies and developing countries.

³For a similar treatment of central planning in pre-1978 China and other Soviet-type economies, see Justin Yifu Lin, Fang Cai, and Zhou Li, "Competition, Policy Burdens, and State-Owned Enterprise Reform," *American Economic Review* 88, no. 2 (May 1998): 422-427.

⁴For an illuminating discussion on the role of networks and historical inheritance in Western market economies, see Paul A. David, "Clio and the Economics of QWERTY," *American Economic Review* 75, no. 2 (May 1985): 332-337; Michael L. Katz and Carl Shapiro, "Network Externalities, Competition, and Compatibility," *American Economic Review* 75, no. 3 (June 1985): 424-440; Brian W. Arthur, "Competing Technologies, Increasing Returns, and Lock-in by Historical Events," *Economic Journal* 99, no. 1 (March 1989): 116-131; S.J. Liebowitz and Stephen E. Margolis, "Network Externality: An Uncommon Tragedy," *Journal of Economic Perspectives* 8, no. 2 (Spring 1994): 113-150; and Rachel E. Kranton and Deborah F. Minehart, "A Theory of Buyer-Seller Network," *American Economic Review* 91, no. 3 (June 2001): 485-508.

⁵Thomas Hobbes, *De Cive or The Citizen* (New York: Appleton-Century-Crofts, 1949), pp. 80, 134; Thomas Hobbes, *The Elements of Law Natural and Politic* (Oxford: Oxford University Press, 1994), pp. 124-125, 137; and, Thomas Hobbes, *Leviathan* (Cambridge: Cambridge University Press, 1996), pp. 90, 100-101, 224-225.

residual income claimants, because profit ends up in some hands.⁶ Property rights are defined as residual control of assets.⁷ Due to institutional complexity, residual control of assets (ownership) and appropriation of residual income (profits) can be split between different actors.⁸ The government under central planning appropriated the residual income of state-owned enterprises not so much directly as indirectly. Directly, enterprises remitted part of their profits to the government as the owner of capital and retained the rest of residual income for internal use. The state banking system existed to (among other functions) automatically remit the net cash flow surpluses to the state along with enterprise taxes.⁹

But book profits constituted only a small part of enterprise surpluses. The bulk of enterprise residual income accrued to the government indirectly, through suppressed wages, controlled relative prices, and cross-subsidies embedded in these prices and financed by suppressed wages. As the government dispensed controlled prices between industries and thus cross-subsidized industries, it effectively invested its indirect profits (especially economic rent on natural resources) in industrial development. There was no mechanism of direct accrual of these parts of residual income to the government as the owner. Not could there be, for the impossibility of accounting for all of the above indirect flows. But this was the fiscal foundation of central planning.

Enter the abolition of central planning, liberalization of transactions and enterprise decisions, and lifting of price control. The banking system no longer had to automatically remit taxes and book profits.¹⁰ The government lost the mechanism of appropriating enterprise residual income through suppressed wages, controlled prices, and cross-subsidies. All profits of enterprises, including residual income from suppressed wages and economic rent on natural resources, and the bulk of tax revenues automatically ended up in the hands of enterprise managers, even before formal privatization of assets. Abolition of forced transactions and forced transfers automatically devolved residual income and fiscal control to the enterprise network and its managers.

The government suddenly found itself fiscally insolvent—not technically bankrupt (for it owned

⁶We owe this insight and many other ideas throughout this book to Thomas E. MaCurdy.

⁷Residual control separates intermediate claimants, such as the government, the community, and creditors, and ultimate owners. Residual control of owners excludes non-owners. See Sanford J. Grossman and Oliver D. Hart, “The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration,” *Journal of Political Economy* 94, no. 4 (August 1986): 691-719 and Oliver D. Hart and John Moore, “Property Rights and the Nature of the Firm,” *Journal of Political Economy* 98, no. 6 (December 1990): 1119-1158.

⁸Oliver D. Hart and John Moore, “Property Rights and the Nature of the Firm,” p. 1121.

⁹Michael S. Bernstam and Alvin Rabushka, *Fixing Russia's Banks* (Stanford: Hoover Institution Press, 1998), pp. 8-9, 23-24.

¹⁰Actually, in the case of former Soviet states, the USSR government already released enterprises in 1988 from remitting profits and thus, in effect, partly privatized the entire Soviet enterprise sector.

assets, pending privatization) but simply deprived of every principal source of revenues. Liberalization devolved the present value of government assets as the source of income. Legal privatization of assets sealed this fate. To keep control over the new system, the enterprise network had only to perpetuate fiscal distress, which it did not have to learn how to do because the mechanism was also there, by evolution. There was no design, no conspiracy, no collusion, and no discovery.

The initial payment jam which congealed the new system came about by default when the government, as part of abolition of central planning, stopped automatically paying off overdue enterprise payables to suppliers.¹¹ That is, the government hardened the budget constraints. Liberalization unleashed excess invoices, counterfeit spending. Government refusal to automatically finance them unleashed the payment jam. This step towards financial stabilization, the third leg of the triad of stabilization, liberalization, and privatization, generated the initial payment jam and tax non-remittance.

Ironically, hardening the budget constraints became the final step in the evolution of the new system. Stopping one automatic mechanism, the soft budget constraints, automatically engendered another mechanism, the payment jam and the self-enforceable tax subsidy. Thus the new system of fungible income under the enterprise network and symbiont government came into being as a result of abolition of central planning, liberalization, and then privatization. The new economic species has evolved.

Let us call this new economic species Enterprise Network Socialism, or ENS for short. It automatically replaced state socialism of forced production under central planning. It substituted fungible common income of the enterprise network (the self-enforceable tax subsidy) for single common income of the nation-enterprise (the soft budget constraints and cross-subsidies for enforcing production). What was meant to be market liberalization mutated into a fiscal free-for-all, as enterprises grabbed public income, and took over the fiscal and monetary authorities. To rephrase John Milton, license emerged under the guise of liberty.¹²

The standard view holds that the same, uniform policy kit applies everywhere, that central

¹¹As we discussed in Chapter 1, financing overdue enterprise payables was another major function of the banking system under central planning.

¹²John Milton wrote in 1673 about reformers of his time:

"License they mean when they cry liberty,
But from that mark how far they rove we see
For all this waste of wealth and loss of blood."

John Milton, Sonnet XII, "On the Detraction which Followed upon My Writing Certain Treatises" in John Milton, *The Poems of John Milton* (New York: W.W. Norton, 1972), p. 295.

planning and developing economies are all alike, and that economic systems do not matter.¹³ This view goes against economic evolution. Contrary to this view, it is crucial that these are **post-Communist** economies, or, more exactly, post-central plan economies. They are post-**central plan**, with the unified, country-wide assembly line, and they are **post-central plan**, with the abolition of forced production, price control, and overall government control of transactions. The result is the emergence of a predatory claimant network, with its excess invoices, the payment jam, and the self-enforceable tax subsidy.

Central planning bequeaths the single nation-enterprise, which becomes the network after its abolition. Paradoxically, liberal reforms superimposed on central planning beget Enterprise Network Socialism. To restate this case, it is not the extent of economic liberty and private property that separates the market economy from ENS and socialism in general.

Enterprise Network Socialism and Its Breakup

A follow-up question is why ENS failed to emerge in Poland? The answer is that such a system did emerge. It swept all post-Communist economies.¹⁴ In Poland, the payment jam (seen at the time as the crisis of enterprise arrears) shocked the economy in 1990-91, toppled the government,¹⁵ and led to financial turmoil and an 18 percent contraction in GDP. But Poland, atypical among post-Communist countries, inherited a sizeable private enterprise sector of small businesses and private agriculture. This private sector produced about 30 percent of GDP, which was not part of central planning. The network of socialist enterprises that emerged to enforce the tax subsidy was thus incomplete and incoherent. Subsequent new entrants into the private sector further undermined it.

¹³See an excellent overview in Dani Rodrik, "Understanding Economic Policy Reform," *Journal of Economic Literature* 34, no. 1 (March 1996): 9-41. The encyclopedia of this approach is The World Bank, *From Plan to Market. World Development Report 1996* (New York: Oxford University Press for the World Bank, 1996), and, next, The World Bank, *Transition. The First Ten Years: Analysis and Lessons for Eastern Europe and the Former Soviet Union* (Washington: The World Bank, 2002). On a different plane, the literature employs the concept of the initial conditions. It is a-systemic by design. It includes geography (e.g., distance from Western Europe), war and peace, political system, and industrial structure (e.g., the share of producer goods manufacturing). These initial conditions are important as they vary between countries. But this treatment of initial conditions dismisses in principle the difference between post-central plan and developing economies and negates economic systems as such. See Jeffrey D. Sachs, "Reforms in Eastern Europe and the Former Soviet Union in Light of the East Asian Experience." *The Journal of the Japanese and International Economies*, 9, no. 4 (December 1995): 454-485, and, Nauro F. Campos and Fabrizio Coricelli, "Growth in Transition: What We Know, What We Don't, and What We Should," *Journal of Economic Literature* 40, no. 3 (September 2002): 793-836, especially p. 828 and references there.

¹⁴Fabrizio Coricelli, *Macroeconomic Policies and the Development of Markets in Transition Economies* (Budapest: Central European University Press, 1998), pp. 52-85. See also Emilian Dobrescu, *Macromodel of the Romanian Transition* (Bucharest: The Expert Publishing House, 1996).

¹⁵Stanislaw Gomulka, "The Causes of Recession Following Stabilization," *Comparative Economic Studies* 33, no. 2 (1991): 71-89.

To a lesser extent and with less success (a deeper contraction and a smaller recovery), the Polish story typified Eastern and Central European countries,¹⁶ while countries in Southeastern Europe, especially Romania and, until 1998, Bulgaria, largely followed the Russian path.¹⁷

China and Vietnam, in contrast, centered their policies on breaking up the enterprise network in agriculture and industry and spawning new independent firms. In 1989, Vietnam instantly closed down a large segment of industrial enterprises and enforced restrictions on the rest.¹⁸ In 1978, China

¹⁶Janos Kornai, "The Road to a Free Economy—10 Years After," The World Bank, *Transition Newsletter* 11, no. 2 (April 2000): 3-5. Hungary especially resembled Poland. It largely developed a new-entrant market sector. Hungary created hundreds of thousands of new firms. When it privatized, it privatized mostly small and medium-size enterprises. Kornai calls this "an organic growth of the private sector." He concludes that privatization as a strategy in post-Communist economies proved inferior at best and harmful at worst and cites the Czech Republic and especially Russia as proof. See also Laszlo Czaba, "A Decade of Transformation: Russia and Hungary Compared," *Acta Oeconomica* 50, no. 3-4 (1999): 257-281, and Jan Svejnar, "Transition Economies: Performance and Challenges," *Journal of Economic Perspectives* 16, no. 1 (Winter 2002): 3-28. Svejnar usefully divides European post-Communist economies into three groups: (1) Poland and Slovenia, the most successful in the region, did not privatize but rather relied on creation of new firms and the so-called commercialization of state enterprises (in our language, assigning separable budgets and breaking up fungible income with the government); (2) Hungary and Estonia, a less successful group, avoided rapid and mass privatization (and were criticized for that) and conducted individual enterprise sales to foreigners and other outsiders (which also breaks up fungible income); and (3) Russia and similar countries championed rapid, mass privatization.

¹⁷Currency boards in Bulgaria and Estonia became powerful means of depriving the government of discretionary monetary policy. Such monetary regimes preclude confiscation of public income by enterprises through the issue of excess invoices. But if enterprises can build up tax non-remittance and thus a large unserviceable fiscal debt, a currency board may not be able to withstand the rising fiscal pressure (like it did not withstand fiscal pressure from debt buildup by provincial governments in Argentina and collapsed in 2001 after ten years of struggle). Additionally, in Estonia an introduction of the flat income tax helped reduce redistribution. A big role was played by an accidental factor: Major industrial enterprises employed primarily ethnic Russian labor. Ethnic Russians constituted about one-third of the population of the new, tiny country and a perceived challenge to its hard-won independence. For reasons unrelated to economic policy and based on linguistic and residence length criteria, these workers could not acquire citizenship rights. To minimize their influence, the government let their employer enterprises halt or nearly halt operation, which—as became apparent after the fact—helped the economy by reducing value subtraction. The immediate result was the unintended breakup of the enterprise network. This made the currency board sustainable. A virtuous circle thus developed for recovery and growth, even if at the cost of segregation.

¹⁸See Socialist Republic of Vietnam, General Statistical Office, *Nien Giam Thong Ke [Statistical Yearbook] 1993* (Hanoi, 1994), pp. 16-18; David Dollar, "Macroeconomic Management and the Transition to the Market in Vietnam," *Journal of Comparative Economics* 18, no. 3 (June 1994): 357-375; Markus Diehl, "Structural Change in the Economic Transformation Process: Vietnam 1986-1993," *Economic Systems* 19, no. 2 (June 1995): 147-182; David Dollar and Borje Ljunggren, "Vietnam," in Padma Desai, ed., *Going Global* (Cambridge: MIT Press, 1997), pp. 439-471; and, Whing Thyee Woo, "China and Vietnam," in Konosuke Odaka and Juro Taranishi, eds., *Markets and Government: Its Search of Better Coordination* (Tokyo: Muruzen Co., 1998). For a broad discussion of Vietnam's economy and policy since 1986, see Adam Fforde and Stefan de Vylder, *From Plan to Market: The Economic Transition in Vietnam* (Boulder, CO: Westview Press, 1996); John R. Dodsworth, Adjai Chopra, Chi D. Pham, and Hisanobu Shishido, "Macroeconomic Experiences of the Transition Economies in Indochina," The IMF, Working Paper 96/112 (October 1996); Christina Dawkins and John Whalley, "Economic Reform and Performance in Vietnam," in John McMillan and Barry Naughton, eds., *Reforming Asian Socialism: The Growth of Market Institutions* (Ann Arbor: University of Michigan Press, 1996), pp. 297-316; Keith Griffin, ed., *Economic Reform in Vietnam* (New York: St. Martin's Press, London: Macmillan, 1998); and, Melanie

launched a comprehensive set of system changes, beginning with the dissolution of agricultural communes and the transfer of land use rights to individual households on long-term leases. Then China effectively segregated its state-owned, heavy industrial enterprises from the rest of the rapidly growing new township and village enterprises (TVEs). By this two-track approach, the Chinese government split the economy into two disjointed parts.¹⁹ In both China and Vietnam, as the new-entrant market sector crowded out the inherited enterprise network, excess incomes were confined to a shrinking network of old state enterprises. This released productive incentives in the bulk of the economy and reallocated resources to productive uses,²⁰ resulting in spectacular growth.

This policy path lies beyond the dichotomy of government and market and has little relation to simple cuts in the size of government, the scope of government control, and market liberalization. Indeed, China and Vietnam, both of which enjoyed high growth, differ on the latter score. At the very time that Vietnam broke up its enterprise network, it conducted a comprehensive liberalization of prices, transactions, and foreign trade;²¹ China postponed its liberalization for many years. Market liberalization in Vietnam did not become fiscal liberalization. It did not open access to public income

Beresford and Dang Phong, *Economic Transition in Vietnam: Trade and Aid in the Demise of a Centrally Planned Economy* (Cheltenham, U.K., and Northampton, MA: Elgar, 2000).

¹⁹Laurence J. Lau, Yingui Qian, and Gerald Roland, "Reform Without Losers: An Interpretation of China's Dual-Track Approach to Transition," *Journal of Political Economy* 108, no. 1 (February 2000): 120-143; Gregory C. Chow, "Challenges of China's Economic System for Economic Theory," John McMillan, "Markets in Transition," in David Kreps and Kenneth Wallis, eds., *Advances in Economics and Econometrics: Theory and Applications* (Cambridge: Cambridge University Press, 1997), pp. 210-239; Gary H. Jefferson and Thomas G. Rawski, "Enterprise Reform in Chinese Industry," *Journal of Economic Perspectives* 8, no. 2 (Spring 1994): 47-70; Pradumna B. Rana and Naved Hamid, eds., *From Centrally Planned to Market Economies: The Asian Approach*, vols. 1-2 (Hong Kong and New York: Oxford University Press, 1994); Scott Rozelle and Guo Li, "Village Leaders and Land-Rights Formation in China," *American Economic Review* 88, no. 2 (May 1998): 433-438; Loren Brandt and Xiaodong Zhu, "Redistribution in a Decentralized Economy: Growth and Inflation in China under Reform," *Journal of Political Economy* 108, no. 2 (April 2000): 422-439; Wei-Wei Zhang, *Transforming China: Economic Reform and its Political Implications* (London: Macmillan Press, 2000); and Athar Hussein, Nicholas Stern, and Joseph E. Stiglitz, "Chinese Reforms from a Comparative Perspective," in Peter J. Hammond and Gareth D. Myles, eds., *Incentives, Organization, and Public Economics: Papers in Honor of Sir James Mirrlees* (New York: Oxford University Press, 2000), pp. 243-277. The latter article points out important similarities between China and Poland and Hungary.

²⁰Eduardo Borensztein and Jonathan D. Ostry. "Accounting for China's Growth Performance," *American Economic Review* 86, no. 2 (May 1996): 224-228, and Chris Bramall, *Sources of Chinese Economic Growth, 1978-1996* (Oxford: Oxford University Press, 2000). No such reallocation of resources from lower-productive and value-subtracting sectors to more productive, high value-added sectors can be found in Russia and little in post-Communist Eastern and Central European countries. See empirical and accounting analysis in Mark De Broeck and Vincent Koen, "The Soaring Eagle: Anatomy of the Polish Take-Off in the 1990s," The IMF, Working Paper 2000/6 (January 2000), and Mark De Broeck and Vincent Koen, "The Great Contractions in Russia, the Baltics and the Other Countries of the Former Soviet Union: A View from the Supply Side," The IMF, Working Paper 2000/32 (March 2000).

²¹David Dollar, "Macroeconomic Management and the Transition to the Market in Vietnam," and Markus Diehl, "Structural Change in the Economic Transformation Process: Vietnam 1986-1993," and Melanie Beresford and Dang Phong, *Economic Transition in Vietnam: Trade and Aid in the Demise of a Centrally Planned Economy*.

for the enterprise network because the network itself was dismantled.

The difference between rapid growth, modest growth, moderate contraction, and great contraction lay in the extent of breaking up the enterprise network, in preventing the mutation of socialism from governmental to a non-governmental incarnation, and in expanding the pre-existing private sector (if countries were lucky to have one, as did Poland), and in the genesis of new firms that could not redistribute income.²² High growth had very little, if anything, to do with liberalization and privatization; more often than not, lack of these measures (for example, no privatization and limited liberalization in China and Poland) helped isolate and control old enterprises, thereby dis-empowering the network. New-entrant firms, like Chinese TVEs, were especially a key factor, irrespective of their property type (TVEs happen to be local government and community owned).

New entrants as such are quantitatively, not qualitatively, beneficial to market economies in that they are more innovative and spur growth. In marked contrast, new entrants are critical in post-Communist economies because they are distinct and separated from the inherited network. The preexisting private sector plays the same crucial role. The new-entrant sector, along with the preexisting private sector, turned out to be crucial in post-Communist economies because its expansion automatically reduced the output of the inherited network as a share of GDP, and the network's power over fiscal and monetary policy. The remnants of the network may remain in place, but the economy is no longer Enterprise Network Socialism. Thus Russia is today an example of Enterprise Network Socialism but China and even Poland are not. Their paths diverged.²³

Private Income Versus Common Income in 42 Post-Communist Countries

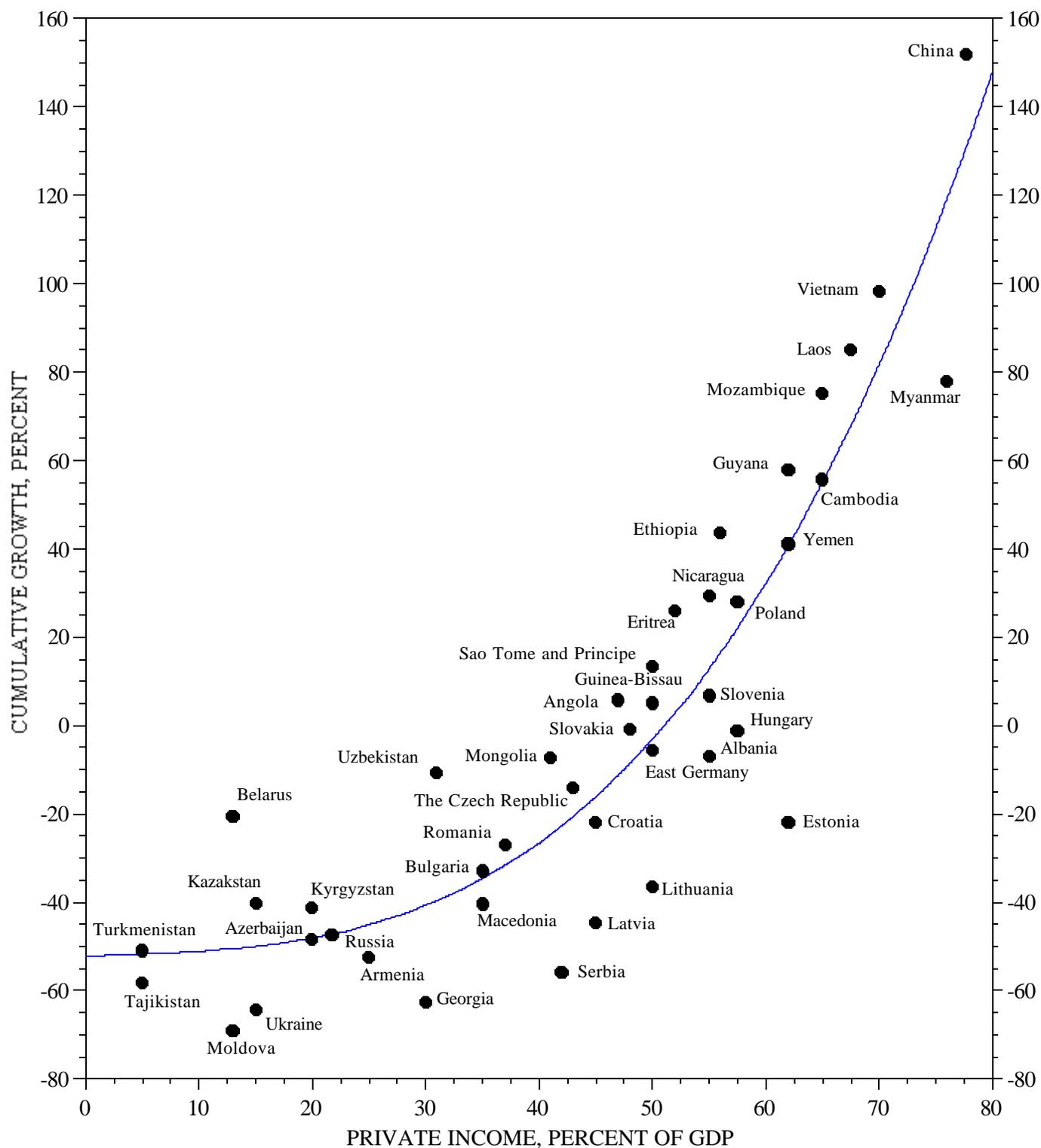
Figure 2.1 examines the performance of 42 post-Communist economies from the perspective of the network inheritance or its breakup. The vertical axis measures cumulative growth of GDP during the decade of 1990-99.²⁴ The horizontal axis plots the share of GDP produced by firms that do not collect

²²A comparative analysis of post-Communist China, Poland, Vietnam, and Russia is in John McMillan and Christopher Woodruff, "The Central Role of Entrepreneurs in Transition Economies," *Journal of Economic Perspectives* 16, no. 3 (Summer 2002): 153-170. This article traces the success or failure of post-Communist economies to the new-entrant market sector or paucity of thereof.

²³Historical inheritance in the case of post-Communist economies was not an ontological fate but an outcome, even if unintended, of a policy choice. One policy choice generated spectacular growth, another, great contraction. There is no preordained dependence of the past and the path. History is crucial but neutral. It is there, it is given. Some countries can utilize historical advantages, such as instant growth opportunity due to inherited value subtraction and other inefficiencies. Other countries unleash historical disadvantages, such as the inherited enterprise network. Policy with no regard for history is itself a policy choice, which, in the case of post-Communist countries, led to socialist mutation.

²⁴As figure 2.1 indicates, the growth data derive from the IMF supplemented by the official national statistics. There has been an extensive debate about the quality and reliability of growth data during the decade of system change.

FIGURE 2.1
CUMULATIVE ECONOMIC GROWTH AND PRIVATE INCOME IN POST-COMMUNIST ECONOMIES,
42 COUNTRIES, 1990-99



Sources: Economic growth: The International Monetary Fund, *World Economic Outlook* (semi-annual, 1990-2000), except for the former Yugoslavia for some years and the former East Germany. The former Yugoslavia, except Serbia, 1990-92: The European Bank for Reconstruction and Development. Serbia, 1993-99: The Economist Intelligence Unit.
 The former East Germany: German Federal Statistical Office and Deutsches Institut für Wirtschaftsforschung.
 Private income: Calculated by the authors from national official statistics, The Economist Intelligence Unit, and national sources.
 The data on East Germany refers to 1994 when major industrial enterprises, which produced at least half of GDP, were subsidized by the Ministry of Privatization.

the tax subsidy, do not generate excess invoices, do not have a stock of arrears, and are not in the payment jam. The latter excludes any portion of GDP produced by the inherited network. We define these firms as earners of **private income**, in the sense that they do not participate in income redistribution, do not socialize income across industries and enterprises, do not finance or receive cross-subsidies, and do not confiscate tax collection and other public income. Private income in this sense is opposite to common income between enterprises and between enterprises and the government, both under central planning and Enterprise Network Socialism. Their shares in GDP are opposites.

It is possible to calculate with a reasonable degree of confidence the share of GDP produced by these non-network firms in the three key countries of Russia, Poland, and China. In 1995, this share constituted 21.8 percent in Russia,²⁵ 57.5 percent in Poland,²⁶ and 77.8 percent in China²⁷ respectively. We also have direct data from national statistics on several other countries such as Belarus, Ukraine, Moldova, Kazakstan, Uzbekistan, Slovenia, Albania, Vietnam, and Myanmar. In addition, the data indicate that in Turkmenistan and Tajikistan the share of output in GDP of firms that broke outside the network does not exceed 5 percent. Thus we can make direct calculations for one-third of the sample. For all other countries we have to resort to crude estimates based on the following procedure: We compound the proportion of GDP produced by those industries with predominantly small firms and farms outside the enterprise network and the share of output of such firms in a given industry. For many countries, this method yields only very crude and unreliable approximations, with the margin of error up to 10 percentage points of GDP. Note that private income and our measurement of it may not necessarily overlap with private ownership of assets. In fact, it clearly does not at all in the crucial cases of Russia and China. In Russia, most enterprises and banks are private and income is not; in China, most income is private while most enterprises and banks are not.

The debate seems to have settled in a consensus to rely on the adjusted and updated IMF series. For a balanced and informed discussion, see Nauro F. Campos and Fabrizio Coricelli, "Growth in Transition: What We Know, What We Don't, and What We Should," pp. 795-818.

²⁵Calculated from the weighted average of the shares of output of small private businesses and foreign ventures in industry (7.7 percent), construction (21.6 percent), transportation (10 percent), non-trade services (50 percent), and trade (42 percent), and personal plots and private farms in agriculture (45.8 percent). The source is Russian State Committee on Statistics, *Rossiiskii Statisticheskii Ezhegodnik 1996* (Moscow: RSCS, 1996), pp. 294, 550, 691-692.

²⁶Central Statistical Office of Poland, *Rocznik Statystyczny 1995* (Warsaw, 1996), pp. XXXV-XXXVI, 528. Due to lack of privatization, Poland is split into the old enterprise network and the private sector of old and new-entrant firms and farms outside the network. Thus in the Polish case, unlike Russia and many other post-Communist countries, private sector data approximates the share of private income in GDP.

²⁷Calculated from the weighted average of the shares of output produced by Township and Village Enterprises (TVEs) in industry (66 percent), TVEs and individual family farms in agriculture, forestry, and fishery (97.1 percent, that is, all agriculture except state farms), TVEs in construction (33.7 percent), and the new private sector and foreign-funded ventures in disaggregated transportation, telecommunications, commerce, and various services. The source is People's Republic of China, State Statistical Bureau, *China Statistical Yearbook 1996* (Beijing: China Statistical Publishing House, 1996), pp. 5, 23, 25, 42, 386, 390, 401, 403, 405, 472, 543, 727, 730.

Our choice of countries is straightforward but atypical. We include all post-central plan economies for which data exist. It is more forthright to employ crude data and advise the reader accordingly, than employ selective samples of countries, which makes any analysis suspect on grounds of data manipulation. Central planning, not Communism as a political system, is our criterion. We include former central plan countries which did not call themselves Communist, such as Myanmar, and exclude countries which called themselves Communist and Marxist-Leninist but did not install central planning, such as Benin.

The empirical literature usually samples 25 to 28 countries of the former Soviet Union and Eastern and Central Europe. The sample excludes China, Vietnam, and other post-Communist countries outside of the narrowly-defined Eurasia. This exclusion is usually based on development or rather underdevelopment grounds.²⁸ We do not find this reasoning compelling. Albania, Mongolia, and the countries of the former Soviet Central Asia are no less agricultural and no more developed than China, Vietnam, or Nicaragua. As a matter of fact, not only Central Asian countries and Albania, but also Ukraine and Moldova, are poorer in terms of per capita income measured in world prices (at purchasing power parity) than China.²⁹ Moreover, as we discussed in Chapter 1, due to significant value subtraction, the overindustrialized Communist countries of Europe had a potential growth advantage over the less industrialized central plan countries of Asia and other continents. Therefore, lower stages of development, even when they are present, should not preclude lumping all post-central plan countries together in one sample. Needless to say, econometric techniques, such as multi-variate regression, are able to control for such differences. Furthermore, the larger the sample the less the data errors in individual cases affect the overall relationship.

We also find no justification for the exclusion of many non-European countries on the grounds that they experienced only partial command economies unlike Eastern Europe and the former Soviet Union.³⁰ In fact, the opposite is often true. Total government economic control was much more ubiquitous in China, Vietnam, Cambodia (turned into one commune), Laos, Ethiopia, and Mozambique (where state agricultural plantations represented effectively slave labor) than in Hungary, Poland, the former Yugoslavia, and even the former Soviet Union. Finally, for completeness, we also include two former Communist countries which underwent unification, the former East Germany, for which separate data exist after unification until the late 1990s, and the former South Yemen, for which we use national Yemen data for the period after unification. The only serious factor that separates the 25 or 28 economies, which are usually included in the empirical tests, from those excluded is that the former experienced great contractions while most of the latter embarked on instant growth. But this is exactly the reason to include both groups in the sample to test any scientific hypothesis. Otherwise, due to the selection bias, the results of the empirical work are predetermined.

²⁸The IMF, *World Economic Outlook*, May 2000, p. 109.

²⁹The World Bank, *Entering the 21st Century. World Development Report 1999/2000* (New York: Oxford University Press for the World Bank, 1999), pp. 230-231.

³⁰The IMF, *World Economic Outlook*, May 2000, p. 109.

Figure 2.1 demonstrates a strong positive relationship between cumulative economic growth in the 1990s and the growth of private income accompanying the breakup of the inherited enterprise network. This positive relationship accounts for (we prefer not to say “explains”) 84 percent of the variation (the linear form of the same relationship accounts for 69 percent of the variation; a better fit by the polynomials of the second and the third degree suggests an acceleration of this influence as the enterprise network further breaks up and private income expands). The relationship holds across most of the 42 economies (Estonia and Belarus are among the unexplained outliers; Serbia is probably an outlier because of a long war). Most importantly, it holds across the spectrum of growth rates. It holds equally for those countries that underwent endless contractions during 1990-99, those that experienced contraction and recovery, and those that enjoyed instant growth, both modest and rapid.

However, this test is limited by its own structure. A stock variable, the share of private income around the middle of the period, is related in figure 2.1 to cumulative growth during the entire decade of the 1990s. The measure of cumulative growth in many countries combines both great contraction and recovery; it does not show each of them separately. It is virtually impossible to find two years, one of contraction and the other, of recovery, in the same calendar year for most countries, which would have enabled us to break the period into parts and examine contractions and recoveries separately. Therefore, at best, this test can account for instant growth and for endless contraction during the 1990s, as in the cases of China and Russia, and for overall performance in Eastern Europe. But it cannot tell us why contraction was greater in some countries if they recovered fast; and why their recovery was especially strong if their prior contraction was deep. It cannot distinguish between countries that had sluggish instant growth, like Nicaragua, and between those that underwent a great contraction followed by strong recovery, like Poland, Slovenia, Hungary, and Estonia. Moreover, for technical reasons, it is more an illustration than a test.³¹

What it does give is a sense of direction. The horizontal axis in figure 2.1 introduces a new variable,

³¹In addition, this test has obvious technical weaknesses. First, correlation does not mean causality. Causality can move in the opposite direction, that is, economic growth due to other independent causes can spur the breakup of the inherited enterprise network and the expansion of the private income sector. However, this reverse causality cannot explain contraction. Why would contraction, produced by other independent factors, create more enterprise network in countries like Russia, when this network was already inherited in full from central planning? The flow of causality more likely goes from private income to economic growth. Second, correlation may be spurious. Many other forces were at work, from different inherited industrial structures to external and civil wars and blockades. These various influences may cancel each other and inadvertently make various countries fit a postulated relationship. The relationship must be controlled for such important factors as the level of development before 1990 (represented by income per capita in world prices, at purchasing power parity), industrial structure (e.g. the share of industry or agriculture in GDP), investment practice (investment share in GDP before 1990), human capital (literacy as a measure of human capital stock and percent of youth enrolled in secondary education as a measure of human capital flow), the share of private sector before the abolition of central planning or before 1990, years of central planning before 1990 (the strength of the enterprise network and other inherited factors), years after central planning before 1990 (+12 in the case of China, -2 in the case of Russia), population size, years in wars and blockade in the 1990s, and other influences. In the absence of a model of growth after the abolition of central planning, all these variables are ad hoc, but they need be employed. We present in the appendix several multivariate regressions along these lines, with different specifications and instruments. In most of them the positive relationship between private income and growth holds statistical significance, but in others it does not.

the extent of a **type of income**, in this case the extent of private income as a share of GDP. This is a new dimension, separate and independent from the extent of government economic control and from the type of property. One can simply call it **the income dimension**. It distinguishes the two types of income, private income vs. common income as shares of GDP. The income dimension ranges from totally private income to totally common income. Classical market economies are close to the former, central planning and Enterprise Network Socialism are close to the latter, and all other countries are in-between, with varying (and opposite) degrees of private and common income.

Figure 2.1 illustrates this approach in the case of 42 post-Communist economies. It shows that the extent of private income as a share of GDP is an independent variable which can account for divergent economic trends after the abolition of central planning. Figure 2.1 also indicates that the expansion of private income, embodied in the new-entrant market sector, is equivalent to the extinction of common income embedded in the inherited enterprise network. It summarizes in abridged form for many countries the same perspective that we used to examine Russia's Great Contraction.

The horizontal axis in figure 2.1 constructs the income dimension as the increasing extent of private income, which implies the decreasing degree of common income. One can describe **private income** as exclusive and internal to its earners. Private income excludes non-earners/non-producers of a given output which earns this income. Private income is free from redistribution by the government or the enterprise network and other private predatory forces. Private income prevails in China and similar countries that broke up the socialist enterprise network and built the new market economies. To a greater extent, private income characterizes classical and contemporary Western market economies (the latter, in their productive market sector, that is, minus the modern Welfare State).

By analogy with common property, we call the second income type **common income**. Common income is not exclusive to its earners. It socializes income and output and redistributes income from producers/earners to non-producers/non-earners. Redistribution of income can be made by the government (e.g., under central planning, rent-seeking in developing economies, the Welfare State, etc.) or by non-governmental forces, such as the enterprise network (under ENS) and other private predators (e.g., piracy and slavery). We use the terms single common income for central planning and fungible common income for Enterprise Network Socialism. The first name emphasizes total governmental control over the nation-enterprise. The second fits the enterprise network and the symbiont government.

Private income can define the market economy, common income defines socialism. The new dichotomy of private and common income is different from the old dichotomy of market and government.

Paradigm Lost

The dichotomy of market and government framed the thinking about the Great Contraction in Russia and similar post-Communist countries. The dominant literature initially pinpointed insufficient

liberalization and privatization—in short, too much government.³² It later added emphasis on the inability to collect taxes, develop the rule of law, protect shareholders, enforce contracts, and regulate banking—in short, too little government.³³ The literature also explored the dynamic application of the same dichotomy. It presented equally compelling arguments on the speed of liberalization and privatization. Moving too slow causes output and financial losses, thus delaying economic recovery.³⁴ Moving too fast creates disorganization, disrupts the supply lines, increases financial losses, and contracts output.³⁵

These are all cogent considerations, true to fact, even if they contradict one another. But they are too generic and can apply almost anywhere at various times, to economies with high, low, zero, or negative economic growth, which does not explain Russia's unprecedented economic decline. The government played an important role in the economies of the rapidly advancing East Asian countries, aptly called the Asian Tigers, both in control and ownership.³⁶ Large state-owned firms have operated

³²The World Bank, *From Plan to Market. World Development Report 1996*; The IMF, *World Economic Outlook*, May 1996; and, European Bank for Reconstruction and Development (EBRD), *Transition Report 1997* (London: Blackwell Publishers, 1997).

³³The World Bank, *The State in a Changing World. World Development Report 1997* (New York: Oxford University Press for the World Bank, 1997); The IMF, *World Economic Outlook*, October 1999; EBRD, *Transition Report 1999* (London: Blackwell Publishers, 1999); and, The World Bank, *Transition. The First Ten Years*. For a comprehensive overview of the literature see William L. Megginson and Jeffrey M. Netter, "From State to Market: A Survey of Empirical Studies on Privatization," *Journal of Economic Literature* 39, no. 2 (June 2001): 321-389, and Nauro F. Campos and Fabrizio Coricelli, "Growth in Transition: What We Know, What We Don't, and What We Should."

³⁴Edward P. Lazear, "Economic Reform: Appropriate Steps and Actual Policies," in Edward P. Lazear, ed., *Economic Transition in Eastern Europe and Russia: Realities of Reform* (Stanford: Hoover Institution Press, 1995), pp. 3-61; Martha de Melo and Alan Gelb, "Transition to Date: A Comparative Overview," in Salvatore Zecchini, ed., *Lessons from the Economic Transition. Central and Eastern Europe in the 1990s* (Dordrecht, Boston, London: OECD and Kluwer Academic Publishers, 1997), pp. 59-78; "Symposium Transition Economies," *Journal of Economic Perspectives* 16, no. 1 (Winter 2002): 3-124; and, The World Bank, *Transition. The First Ten Years*.

³⁵Ronald I. McKinnon, "Financial Growth and Macroeconomic Stability in China, 1978-1992: Implications for Russia and Other Transitional Economies," *Journal of Comparative Economics* 18, no. 3 (June 1994): 438-470; Oliver J. Blanchard, *The Economics of Transition in Eastern Europe* (Oxford: Oxford University Press, 1997); Oliver J. Blanchard and Michael Kremer, "Disorganization," *Quarterly Journal of Economics* 112 (November 1997): 1091-1126; Gerard Roland and Thierry Verdier, "Transition and the Output Fall," *Economics of Transition* 7, no. 1 (January 1999): 1-28; Joseph E. Stiglitz, *Whither Reform?* (Washington, D.C.: The World Bank, 1999); and, Joseph E. Stiglitz and David Ellerman, "New Bridges Across the Chasm: Macro- and Micro-Strategies for Russia," (Boston, 2000), available at <http://www.ecaar-russia.org/stiglitz-ellerman.htm>. For an extensive overview, see Nauro F. Campos and Fabrizio Coricelli, "Growth in Transition: What We Know, What We Don't, and What We Should."

³⁶An interesting overview of the experiences of Japan, South Korea, Taiwan, Hong Kong, Singapore, and China, is Xiaoming Huang, ed., *The Political and Economic Transition in East Asia: Strong Market, Weakening State* (Washington: Georgetown University Press, 2001). For a detailed discussion of government and the economy in Singapore and Hong Kong, see Linda Seah, "Public Enterprise and Economic Development," in Peter S.J. Chen, *Singapore: Development Policies and Trends* (Singapore: Oxford University Press, 1983), pp. 129-159; Alwyn Young, "A Tale of Two Cities: Factor Accumulation and Technical Change in Hong Kong and Singapore," in Oliver J. Blanchard

in Italy, France, and Great Britain for decades of the twentieth century, and are still prominent in Norway and Austria. Germany still has a large state-owned banking sector. Many countries in Western Europe have rigid labor markets. Italy had been notorious for lawlessness, tax evasion, and corruption. Poland and Slovenia, the fastest recovering Eastern European countries, and China, the fastest growing country in the world, did not privatize their old industries. Russia liberalized and privatized more than most post-Communist economies and Latin American countries; in some areas, even more than some Western market economies on the above list.³⁷

From the standpoint of the dichotomy of government and market, Russia converges with Western market economies. For Western observers, policy makers, researchers, and investors Russia has all the appearances and trappings of a market economy. The West has formally declared Russia a market economy in 2002 and invited it to join the G-8; membership in the World Trade Organization is pending. Russia receives a high mark on the basis of a comprehensive scale of reform indicators—combining liberalization, privatization, and legal and institutional frameworks—devised by the European Bank for Reconstruction and Development and employed by the International Monetary Fund. This scale is the most comprehensive practical application of the reigning paradigm. On this scale, in 1999, Russia ranks at 2.5-2.7 compared with Poland at 3.4-3.5 and Slovenia at 3.2-3.3, and is well above Belarus at 1.5-1.8.³⁸ The scale is linear, not Richter (logarithmic). The difference of 0.7 to 1.0 percentage points in market quality between Russia and Poland cannot account for more than 70 percentage points difference in their respective cumulative growth during the 1990s: Poland, +28 percent, and Russia, -45 percent (see figure 2.1).

To sharpen the contrast, one can add a comparison with China. This comparison is often disqualified on the grounds that China is a poor, developing country. Yet, in terms of a universal measure of economic development, income per capita in world market prices (at purchasing power parity, to use the technical term), China, with \$3,700 per person in 1999, is more prosperous than most parts of the former Soviet Union except the Baltic states, Belarus, and Russia. China is fast closing the gap with Russia, at \$3,950 per person.³⁹ In terms of liberalization, privatization, commercial

and Stanley Fischer, eds., *NBER Macroeconomic Annual 1992* (Cambridge: MIT Press, 1992), pp. 13-54; and Chang-Tai Hsieh, "What Explains the Industrial Revolution in East Asia? Evidence from Factor Markets," *American Economic Review* 92, no. 3 (June 2002): 502-526.

³⁷See international comparisons in William L. Megginson and Jeffrey M. Netter, "From State to Market: A Survey of Empirical Studies on Privatization."

³⁸The IMF, *World Economic Outlook*, October 1999, p. 75, and, The IMF, *World Economic Outlook*, October 2000, p. 129. Incidentally, Belarus had 11.4 percent economic growth in 1997, 8.3 percent in 1998, 3.4 percent in 1999, 5.8 percent in 2000, and 4.1 percent in 2001 (The IMF, *World Economic Outlook*, April 2002, p. 167). The literature recognizes that the growth experience of the non-reforming Belarus and also Uzbekistan presents a challenge to the conventional wisdom. See Stanley Fischer and Ranta Sahay, "The Transition Economies After Ten Years," IMF Working Paper WP/00/30 (March 2000).

³⁹The World Bank, *Entering the 21st Century. World Development Report 1999/2000*, pp. 230-231. However, the IMF revised the estimate of Russia's income per capita at purchasing power parity in 1999 as \$6,800. The IMF. *World*

banking, currency convertibility, and other conventional measures, China is well behind Russia. In terms of creation of new market firms, usually owned by local governments and communities (the Township and Village Enterprises, or TVEs), and family farms, China is well ahead of Russia or any other post-Communist country. On the above scale of reform indicators, China ranks at 2.1 (the same as non-reforming Uzbekistan) and Vietnam at 1.9,⁴⁰ both below Russia. But the score makes little difference. China's cumulative economic growth during 1990-99 was a whopping 150 percent compared with Russia's 45 percent contraction. No existing reform scale can account for this huge contrast. China's success goes completely against the prevailing dichotomy and remains largely unexplained,⁴¹ as does Russia's failure.⁴²

Having thoroughly analyzed the Chinese experience in comparison with the dominant paradigm, Gregory C. Chow saw the paradigm lost.⁴³ We arrive at the same finding after looking at the Russian experience as well as that of 42 post-Communist countries. A most comprehensive, recent empirical study by Andrew Berg et al. of the usual sample of 26 post-Communist countries of Eastern and Central Europe and the former Soviet Union tested the impact of conventional factors on their contractions and recoveries. Performed without prejudice, it found the framework at loss:

“If we consider all four classes of models, no single policy variable considered was always robust (...) This is a somewhat discouraging result, as it shows that alone the data offer very little guidance on the relative significance of specific policies. In other words, the same data set could be used to make contradictory claims about the significance or lack of significance of various policy variables.”⁴⁴

In plain English, conventional factors, important in Western market and developing economies and

Economic Outlook, October 2000, p. 129. If this were even remotely possible, Russian income per capita at purchasing power parity in 1989, before the contraction, would have been \$12,400, higher than Portugal, Greece, and South Korea, and close to Spain, Ireland, and Finland, which is too absurd to refute. The only reason for this revision is not to let China close the income gap with Russia.

⁴⁰The IMF, *World Economic Outlook*, October 2000, p. 129.

⁴¹Gregory C. Chow was the first to point this out. See Gregory C. Chow, "Challenges of China's Economic System for Economic Theory." See also Jean C. Oi, *Rural China Takes Off: Institutional Foundations of Economic Reform* (Berkeley and London: University of California Press, 1999).

⁴²The conclusion of the most recent and comprehensive overview of the theoretical and empirical literature on the causes of divergent economic growth and contraction in post-Communist countries is that we know that we don't know. Nauro F. Campos and Fabrizio Coricelli, "Growth in Transition: What We Know, What We Don't, and What We Should," pp. 819-831.

⁴³Gregory C. Chow, "Challenges of China's Economic System."

⁴⁴Andrew Berg, Eduardo Borensztein, Ratna Sahay, and Jeromin Zettelmeyer, "The Evolution of Output in Transition Economies: Explaining the Difference," IMF Working Paper WP/99/73 (May 1999), p. 52.

centered around the relationship between market and government, do not explain economic success or failure in post-Communist countries.

A most recent, comprehensive survey of the literature on growth and contraction in post-Communist economies concludes in the carefully chosen language:

“An important implication of the two brands of literature reviewed (...) is that price liberalization and tight macroeconomic policies do not necessarily foster growth. Institutions enabling the functioning of a market economy are a fundamental precondition (...) [but] The notion of institutions is too vague to lead to a simple theoretical treatment.”⁴⁵

In plain English: Paradigm lost.

Let us take a quick glance at the experience of the 1990s in the same 42 countries that we observed before, but from the standpoint of the dominant literature. We will even use, for the short duration, its own language. It is more appropriate for a church than for scientific discourse but this in itself conveys the dominance and confidence of the prevailing wisdom. The triad of liberalization and privatization, along with financial stabilization, is called in this language the Orthodox strategy.⁴⁶ Russia first and foremost falls into this category; Moldova, Latvia, Kazakstan, Ukraine, and Romania come very close. Partial application of these policies, combined with government regulations such as wage control, control of bank credit to enterprises, capital controls, etc., which were used in Poland, Hungary, Slovakia, the Czech Republic, and elsewhere, are called the Heterodox strategy. Other unconventional measures, such as the currency board introduced in Estonia and, recently, in Bulgaria, belong to the same category. This taxonomy leaves no room for China, Vietnam, and other post-Communist economies. They did not apply the triad of liberalization, privatization, and stabilization (or, like Vietnam, applied only part of the triad). They did not liberalize the inherited enterprise network but phased out and broke it up instead. How shall we call them? In the spirit of the language we temporarily adopted, it would be appropriate to call them Heretics.

Figure 2.2 plots cumulative economic growth in the decade of 1990-99 in the 42 post-central plan countries for which the data is available (Bosnia and Herzegovina is missing). It marks the appropriate countries by the three categories: Orthodox, Heterodox, and Heretics. We add the fourth category of a different nature. It encompasses countries that endured external and civil wars and blockades during this decade. This fourth category is accidental. The three paradigmatic categories constitute exactly the scale that we discussed above, the scale of liberalization and privatization of enterprises from big Government on an expected move to the market and growth. If the paradigm

⁴⁵Nauro F. Campos and Fabrizio Coricelli, “Growth in Transition: What We Know, What We Don’t, and What We Should,” pp. 825-826.

⁴⁶For a succinct nomenclature of the orthodoxy see, e.g., The IMF, *World Economic Outlook, October 2000*, p. 131.

works, we must find the Orthodox performing better than the Heterodox, with the Heretics at the bottom. Figure 2.2 shows that the Orthodox, especially Russia, Moldova, and Ukraine, is indistinguishable in its economic performance from the countries that underwent long wars and blockades, such as Georgia, Tajikistan, Serbia, Azerbaijan, and Macedonia. The Heterodox is a variable mix, with the cumulative result of the decade from moderate growth in Poland to still significant accumulated contractions in Estonia and the Czech Republic (in the latter, contraction resumed in 1998-99 after an aborted recovery). The Heretics exhibit growth from good to excellent. We did not choose this language. It was chosen by the representatives of the paradigm, to indicate its omniscience. Figure 2.2, based on evidence, reveals the swift, unambiguous, and resolute rejection of a dominant paradigm.

The Labors of Sisyphus

The triad of stabilization, liberalization, and privatization (SLiP, for short) developed as a major practical policy application of the dichotomy market vs. government. It is a policy navigation from government to market. The strength of the triad lies in its record of success in a number of developing economies. It was also successfully applied in Western market economies, which were diverted in the twentieth century towards big government, but then reverted to somewhat more classical liberal roots.

The experience of post-Communist economies undermines the universal applicability of the triad. A simple comparison of Russia, Poland, and China, and many other countries in between, suggests a rather negative relationship: the less nations apply the SLiP reform, the better economies perform. SLiP inadvertently unleashes Enterprise Network Socialism after the abolition of central planning. We dissected the mechanism of this evolution earlier in this chapter. Not using the triad allows countries to phase out and break up the enterprise network, prevent socialist mutation, employ the windfall growth potential, and enter the road to the market economy and economic growth.

The application of SLiP to post-Communist economies is counter-productive in more ways than one. Not only does SLiP reroute countries from growth to contraction, it also perpetuates their slip down, or as the song says, slip-sliding away. This is because in post-Communist economies, with their inherited enterprise network, the three components of the triad are mutually incompatible. To wit, liberalization and privatization, as we have explained, invariably and inevitably result in financial destabilization—the exact opposite of the intended outcome. They are in internal conflict, they undermine one another, and their continual application further erodes the economy. Russia, with its Great Default, is the most salient example.

Enterprises, liberated from government control and privatized, take over fiscal and monetary authority, enforce the tax subsidy, build up public debt and lead to serial defaults. This ruins government efforts towards financial stabilization. Before the default, instead of a default, or after the default, the government, which cannot place more debt, accelerates money printing and resumes inflation. Financial stabilization can only go through transient episodes. In order to return to financial stabilization after the

default and resumption of inflation, the government rolls back liberalization (especially takes capital flows, foreign trade, and energy prices under control) and halts privatization.⁴⁷ It breaks the SLiP triad. A renewed liberalization and privatization drive accelerates fiscal failure and again ruins financial stabilization. The process repeats itself as, in Greek mythology, the labors of Sisyphus.

As a result, the triad of stabilization, liberalization, and privatization is never implemented as a whole, regardless of whether the government tries to implement it, as in Russia, or eschews it, as in China and Poland. This situation has a positional advantage in the policy argument and policy making. The policy of SLiP can never be proven wrong because it can always be said, true to fact, that one or another component of the triad has not been implemented. And these non-implemented components recycle back and forth.⁴⁸ The dominant policy literature can never be refuted; the IMF can never be wrong; the liberal reformers in Russia and similar countries can never go wrong. The Sisyphean labor of reform is never finished (and since the reformers are never discredited, their claim on power is always valid). From the standpoint of science, any hypothesis that cannot be disproved by evidence and is always right is therefore not scientific. It has no value, much like the hypothesis that people can be immortal if they have the political will not to die. As Jonathan Swift wrote,

“The professors contrive new methods of agriculture and building, and new instruments and tools for all trades and manufactures, whereby, as they undertake, one man shall do the work of ten; a place may be built in a week, of materials so durable as to last for ever without repairing. All the fruits of the earth shall come to maturity at whatever season we think fit to choose, and increase an hundredfold more than they do at present, with innumerable other happy proposals. The only inconvenience is, that none of these projects are yet brought to perfection, and in the meantime the whole country lies miserably waste, the houses in ruins, and the people without food or clothes.”⁴⁹

Paradigm Regained

Why does the dichotomy of market and government fit Western market and developing economies and promote growth policies but fail on both counts in post-Communist countries? This dichotomy serves as a shortcut, which reduces a multidimensional world to one—and, as it turns out, false—dimension. It

⁴⁷In the Russian case, the Central Bank reintroduced capital controls after the Great Default of 1998, specifically, mandated repatriation of 75 percent (later, 50 percent) of export revenues. This contributed to fiscal stabilization, lower inflation, partial dissipation of enterprise arrears, and economic recovery.

⁴⁸The IMF always found in Russia that either financial stabilization or structural reform have not been implemented, but ignored their perpetual changing places.

⁴⁹Jonathan Swift, *Gulliver's Travels*. Edited by Peter Dixon and John Chalker (Baltimore and New York: Penguin Books, 1967), pp. 221-222.

equates limited government and private property with the market economy and it identifies a big, restrictive Government and state ownership with socialism. Neither of these two equations holds universally.

They hold only in three major but special cases: (1) in Western market economies with limited government; (2) under central planning with near-total socialism and total government; and (3) in many (but not all) developing and historical economies in-between. Yet, in Russia and similar post-Communist economies, limited government and private property coexist with near-total socialism of the enterprise network, not with the market economy. At the same time, China and similar post-Communist economies foster the new-entrant market economy with little private ownership and under highly restrictive government. These conjunctions break both equations: Socialism is not big, restrictive Government and state ownership; the market economy is not limited government and private property.

But this new experience also breaks the unidimensional, reductionist paradigm and immediately opens several new dimensions. The government has its own dimension, ranging from highly restrictive to limited to absent. Limited government embodies economic liberty. The type of property is another dimension, which extends from common property of all to property rights of private and public entities. The property rights literature elaborates this dichotomy, showing that common property implies common access to assets and resources. Common access leads to predatory runs on resources and their depletion, as happens with land, water, and wild game in traditional societies.⁵⁰ Private property, state ownership, and other types of property rights exclude common access and internalize the use of resources, whereas common property socializes and redistributes resources.

The property dimension and the government dimension

To initiate a break from the one-dimensional paradigm, figure 2.3 introduces a two-dimensional

⁵⁰An important literature, starting with Thomas Hobbes and with Henry James Sumner Maine's classic Oxford lectures, analyzes common property on land and other assets as it leads to runs, overuse, and depletion. See Thomas Hobbes, *De Cive or The Citizen*, especially p. 94; Thomas Hobbes, *Leviathan*; Henry Sumner Maine, *Village-Communities in the East and West* (London: John Murray, 1872); H. Scott Gordon. "The Economic Theory of a Common-Property Resource: The Fishery," *Journal of Political Economy* 62, no. 2 (April 1954): 124-142; Garrett Hardin, "The Tragedy of the Commons," *Science* 162 (December 1968): 1243-1248; Vernon L. Smith. "The Primitive Hunter Culture, Pleistocene Extinctions, and the Rise of Agriculture," *Journal of Political Economy* 83, no. 4 (August 1975): 727-755; Garrett Hardin and John Baden, eds., *Managing the Commons* (San Francisco: Freeman, 1977); Carlisle F. Runge, "Common Property Externalities: Isolation, Assurance, and Resource Depletion in a Traditional Grazing Context," *American Journal of Agricultural Economics* 63, no. 4 (November 1981): 595-606; and, Garrett Hardin, "The Tragedy of the Unmanaged Commons: Population and the Disguises of Providence," in Robert V. Andelson, ed., *Commons Without Tragedy: Protecting the Environment from Overpopulation—A New Approach* (London: Shephard-Walwyn and Savage, MD: Barnes & Noble, 1991), pp. 162-185. A major documented historic case of the disincentive, indeed devastating, effect of common property is the story of the Plymouth colony in the early seventeenth century. William Bradford, the second governor of the Plymouth Colony, left its classic record and insightful analysis: William Bradford, *Bradford's History of Plymouth Plantation* (Boston: Wright & Potter Printing Co., 1900).

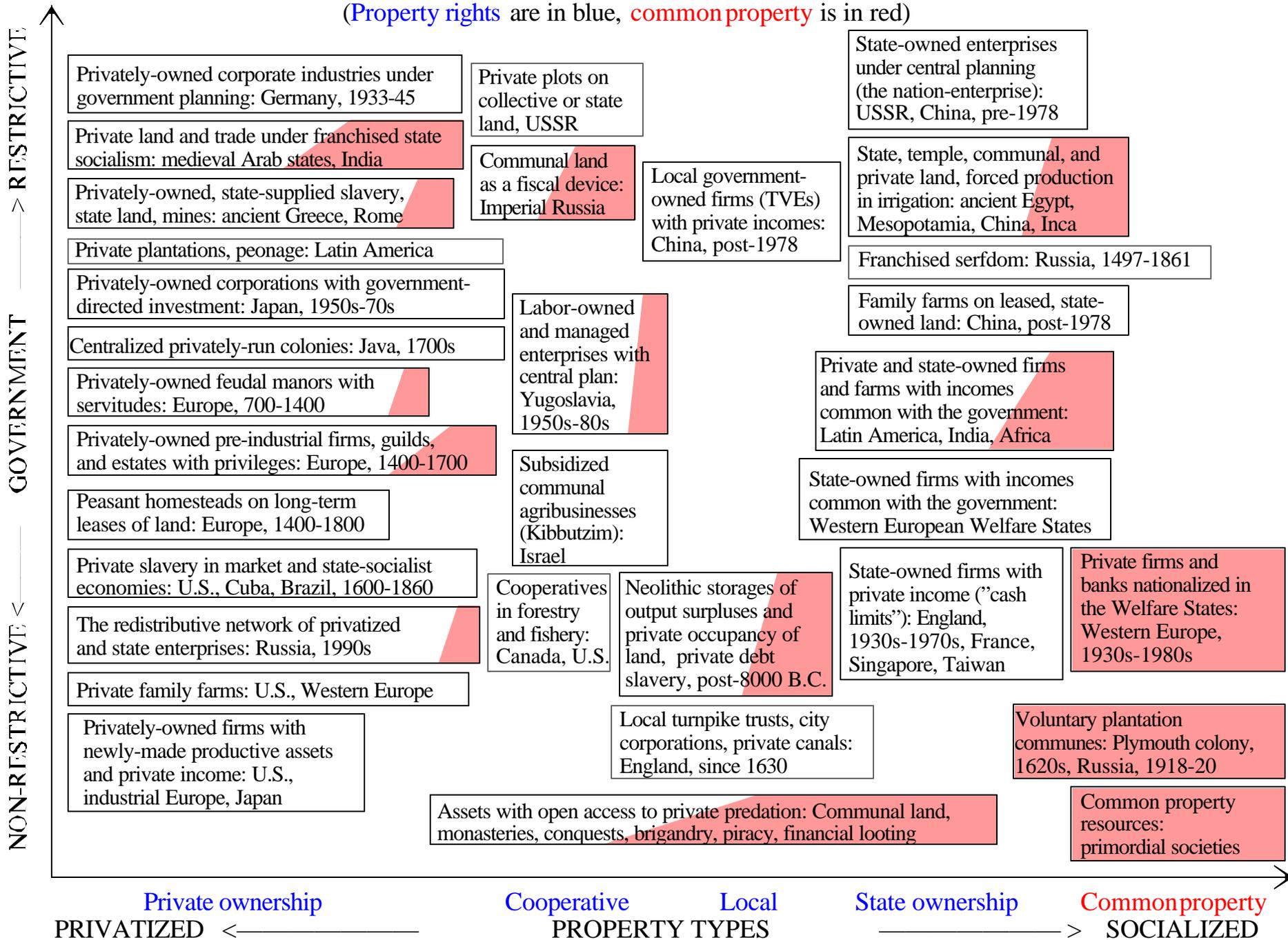
frame. It assembles 32 empirical property episodes around the world during the last 10,000 years and beyond and arranges them on the property and government dimensions.⁵¹ The horizontal axis constitutes the property dimension. It extends from zero socialization under private ownership to total socialization under common property. Socialization increases and privatization declines throughout five selected property types: (1) private property, (2) cooperative ownership, (3) local government ownership, (4) national state ownership, and (5) common property. The first four types embody property rights and form a dichotomous relationship against common property.

We treat confiscation and redistribution of property by the government (nationalization) or by private predators (e.g., conquest, brigandry, piracy, or periodic redistribution of assets) as a conversion into common property, even if property rights of the new owners settle after confiscation and redistribution. Plainly, redistribution of assets automatically makes property common until a new settlement of property rights. Common property can be viewed as perpetual redistribution of assets and resources, while confiscations exemplify one-time, short-term commonization of property. The difference is merely in duration, not in substance. Figure 2.3 marks common property in red, both permanent common property and transient confiscations and other redistributions. Empirically, confiscations and redistributions were

⁵¹We tried to select all distinct and important property episodes from the literature. Missing cases can be readily added to figure 2.3 and overlapping cases dropped. Most designations are self-explanatory, but some historical episodes do not have conventions in the literature and we invented their names. Misidentified cases can be readily rearranged by different property types. A short reference list from the voluminous literature includes Jacques Attali, *Au Propre et au Figure: Une Histoire de la Propriete* (Paris: Fayard, 1988); *International Encyclopedia of Comparative Law*, vol. 6, Frederick H. Lawson, ed., *Property and Trust* (The Hague: M. Nijhoff, 1983); Michael Hudson and Baruch A. Levine, eds., *Privatization in the Ancient Near East and Classical World* (Cambridge: Peabody Museum of Archaeology and Ethnology, Harvard University, 1996); Moses I. Finley, *Studies in Land and Credit in Ancient Athens, 500-200 B.C.: The Horos Inscriptions* (New Brunswick: Transaction Books, 1985); Charles Tilly, *Coercion, Capital, and European States, AD 990-1990* (Cambridge: Basil Blackwell, 1990); Baber Johansen, *The Islamic Law on Land Tax and Rent: The Peasant's Loss of Property Rights as Interpreted in the Hanafite Legal Literature of the Mamluk and Ottoman Periods*; Irfan Habib, *The Agrarian System of Mughal India, 1556-1707*; Henry Sumner Maine, *Village-Communities in the East and West*; Charles P. Issawi, ed., *The Economic History of the Middle East, 1800-1914: A Book of Readings*; Alfred W. B. Simpson, *A History of the Land Law* (Oxford: Clarendon Press, 1986); Wendy Davis and Paul Fouracre, eds., *Property and Power in the Early Middle Ages* (Cambridge: Cambridge University Press, 1995); Athanassios N. Yiannopoulos, *Personal Servitudes: Usufruct Habitation, Rights of Use* (St. Paul, MN: West Publishing Co., 1989); Francois Chevalier, *Land and Society in Colonial Mexico: The Great Hacienda* (Berkeley: University of California Press, 1963); George L. Beckford, *Persistent Poverty: Underdevelopment in Plantation Economies of the Third World* (New York: Oxford University Press, 1972); Richard Sheridan, *Sugar and Slavery: An Economic History of the West Indies, 1623-1775* (Aylesbury: Ginn & Co., 1974); Robert W. Fogel, *Without Consent or Contract* (New York: W.W. Norton, 1989); Robert W. Fogel and Stanley L. Engerman, *Time on the Cross: The Economics of American Negro Slavery* (New York: W.W. Norton, 1989); John H. Coastworth and Alan M. Taylor, eds., *Latin America and the World Economy since 1800* (Cambridge: Harvard University Press, 1998); Stuart B. Schwartz, *Sugar Plantations in the Formation of Brazilian Society: Bahia, 1550-1835* (Cambridge: Cambridge University Press, 1985); Kenneth L. Sokoloff and Stanley L. Engerman, "Institutions, Factor Endowments, and Paths of Development in the New World," *Journal of Economic Perspectives* 14, no. 3 (Summer 2000): 217-232; Richard H. Steckel and Joseph M. Prince, "Tallest in the World: Native Americans of the Great Plains in the Nineteenth Century," *American Economic Review* 91, no. 1 (March 2001): 287-204; and, William L. Megginson and Jeffrey M. Netter, "From State to Market: A Survey of Empirical Studies on Privatization."

FIGURE 2.3. PROPERTY TYPES AND GOVERNMENT RESTRICTION: 32 EMPIRICAL EPISODES

(Property rights are in blue, common property is in red)



frequent on a partial scale in many economies with the otherwise prevalent private, cooperative, local government, or national state ownership. To reflect this history, we mark these cases partly in red to an estimated extent. These are partially mixed episodes of property types.

The vertical axis in figure 2.3 constitutes the government dimension. It extends from totally non-restrictive to totally restrictive government, approximated as the degree of government control over economic activity. It is the dimension from absent to limited to total government. Empirical cases of 32 property episodes in figure 2.3 are organized accordingly.

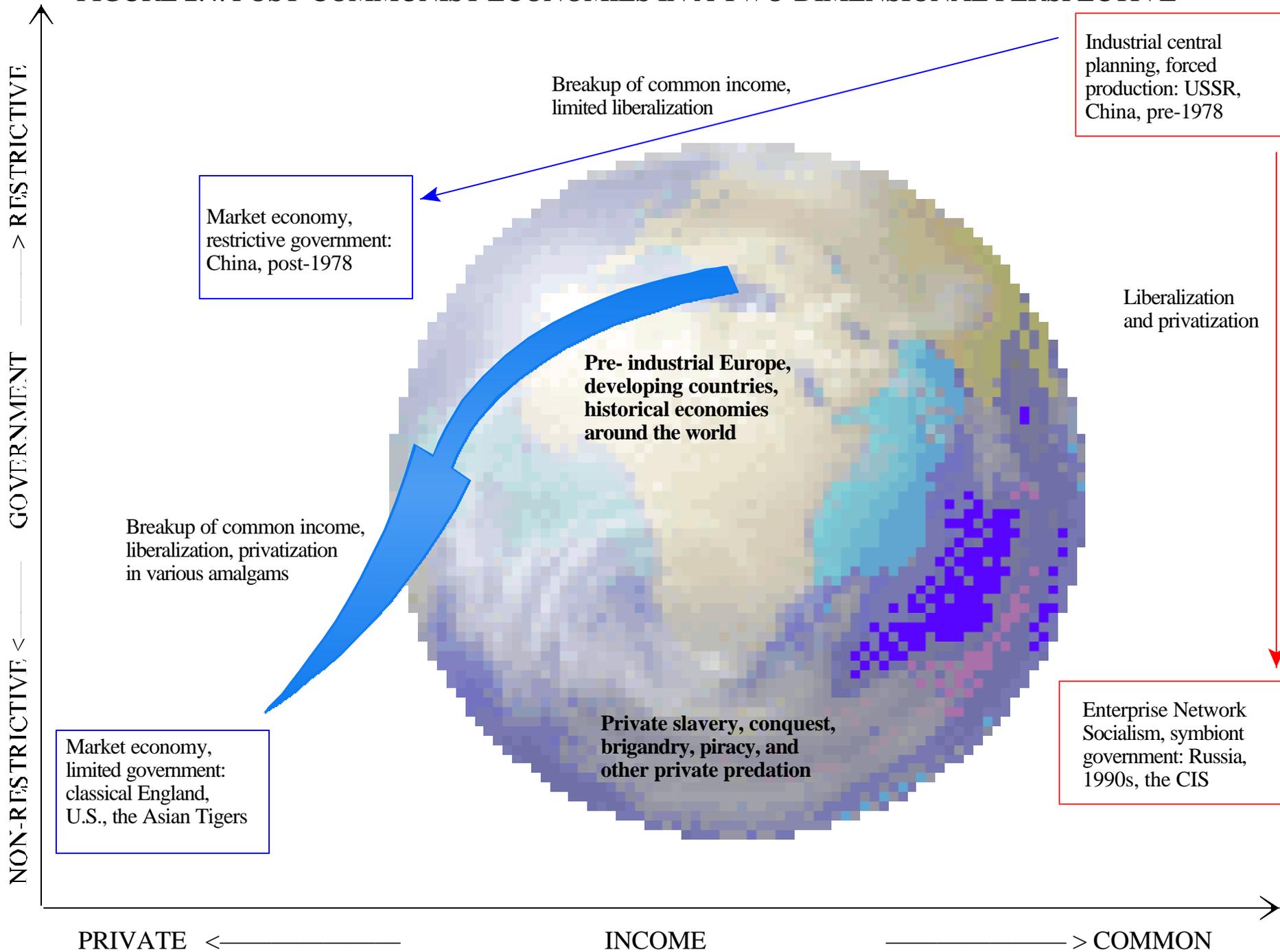
Figure 2.3 illustrates how a simple two-dimensional frame can encompass and systematize empirical information around the world and through history. And it does more. By organizing empirical cases, it shows that a frequently postulated complementarity between limited government and property rights or between limited government and private property just does not exist. Another frequently postulated complementarity between restrictive government and state ownership, the converse of the above relationship, also does not exist. One can view figure 2.3 as a scatter bivariate diagram. Both variables, property types and government restriction, are scattered all over the map. There is no correlation between them. The empirically observable long-term and world-wide relationship between government restriction and property types is random. It is beyond the scope of our book to investigate why this is so and what it means for policy. But it follows that liberalization and privatization are neither complementary nor contradictory to each other. The variable experience of post-Communist economies, from Hungary and Poland to China and Vietnam, reinforces this point. Property and government are independent and separate dimensions.

The income dimension and the government dimension

Figure 2.1 introduced one more dimension, the income dimension, in the empirical case of 42 post-Communist economies. One can design the income dimension as the expansion of private income and the extinction of common income, as we did on the horizontal axis in figure 2.1. One can take a more somber approach and view the income dimension in reverse, as the exception of market economies from the vast extant of socialist economies. Figure 2.4 takes this approach. It makes a stylized presentation of the income dimension in the two-dimensional frame similar to figure 2.3. The vertical axis is the same extent of government restriction of the economy, from absent to limited to total government, as in figure 2.3. The horizontal axis in figure 2.4 is the new income dimension. It substitutes for the property dimension in figure 2.3. By analogy with the property dimension from private to common property, the horizontal axis in figure 2.4 constitutes the income dimension from totally private to totally common income. It represents the extent of income redistribution from producers/earners to non-producers/non-earners from zero to 100 percent of GDP.

Dimensionally, the two designs in figures 2.1 and 2.4 are identical as in the proverbial glass half-full and half-empty. But figure 2.4 looks like the vast expanse of common income, numerous species of socialism through history and around the world, and a small island of private income—the market economy

FIGURE 2.4. POST-COMMUNIST ECONOMIES IN A TWO-DIMENSIONAL PERSPECTIVE



at the world's end and history's crest. The blue arrows indicate the breakup of common income in the direction of private income economies along the income dimension. The slopes of the blue arrows correspond to estimated reductions of government restriction—liberalization and privatization in various cases. The red drop-down arrow from central planning to Enterprise Network Socialism depicts the inheritance of the enterprise network—liberalization and privatization with no breakup of common income. This red arrow charts the devolution from single common income to fungible common income.

By the measures of income redistribution and government restriction, figure 2.4 fits post-Communist Russia and China on the same map with Western market economies, central planning in Communist countries, and an array of historical and developing economies lumped together. Only the split of socialism (common income) from restrictive government, the split of the market economy (private income) from limited government, and the general split between income and government dimensions make it possible to fit post-Communist economies on the map of the world.

The income dimension, private income, and common income

The moment has come to formally introduce the dichotomy of private vs. common income and the income dimension. The reader will see why this has not been done at the outset and why the prior invocations of private and common income might have seemed sketchy if not obscure. The designations “internal,” “exclusive,” “socialized,” “redistributed” sounded, admittedly, more rhetorical than rigorous. It takes an excursion into the ontological nature of income. We make it brief now and will expand it and lay out its foundations in the next chapter. The ontological problem of income is hard because it is twofold.

1. What makes income a dimension is that income constitutes returns on production, and returns may not be exclusively appropriated by producers to the exclusion of non-producers. Thus returns can be internalized or socialized.
2. What makes income a unique, self-contained dimension is that it can be redistributed—taken by non-producers from producers. Other returns, such as benefits of inventions and costs of pollution, cannot be taken away and redistributed. They can only spill over from producers to non-producers and thus add returns to non-producers. Redistribution of income and addition of returns (benefits or costs) constitute two different types of socialization. One is spillovers (externalities), the other, takeovers (redistribution). One is benevolence or negligence, the other, predation and suppression. The former may slow down technological progress, the latter suppresses output. This is a fateful, albeit ignored, difference.

To make a long story short, these two ontological sides of income can be sorted out as follows:

1. Income is returns on products and on factors of production, such as labor (wages), human capital (wages and prizes), financial and physical capital (interest, returns on financial assets, and profit), and land (rent). In the interactive flow of production, returns accrue simultaneously to the producer and form his

income, and to the economy and form national income, GDP. Returns to the economy are real products (goods), real output, measured as the value-added which sum up to GDP. Returns to the producer may be real products or income, both in kind and in money. It is a simple accounting fact that each producer adds real income (output) to national income. Arthur C. Pigou called this addition the marginal social net product.⁵² Subsequent literature adopted the term social returns.⁵³

Pigou invented a new accounting approach to the economic problem. He pointed out that, in various economies and sectors of each economy, returns to the producer and social returns may or may not coincide.⁵⁴ If they coincide, producers internalize their returns. Internalization means the equivalence of social returns and returns to the producer. Internalized returns are exclusive to their producers and earners. If social returns and returns to the producer differ, returns are socialized. Socialized returns are non-exclusive because they accrue to non-producers and non-earners in addition to, or instead of, producers and earners.

Don't be intimidated by the jargon. This part of the story is simpler than it sounds. Social returns are products, goods. Returns to the producer are products kept for himself and income earned from others. The relationship between social returns and returns to the producer is that between production and compensation, between contribution and remuneration. If they are equivalent, producers earn what they have produced and exclude non-producers/non-earners of a given real income (output). This is internalization. If production and compensation differ, non-producers and non-earners are not excluded and they appropriate what they did not earn. This is socialization.

⁵²Arthur C. Pigou, *The Economics of Welfare* (London: Macmillan and Co., 1929), pp. 135-145, 174-214, 223-227. The qualifier 'net' is important in order to take into account a possible value subtraction which we discussed in chapter 1.

⁵³A compendium of classic articles is Tyler Cowen, ed., *Public Goods and Market Failures: A Critical Examination* (New Brunswick: Transaction Publishers, 1992). See also, Richard Cornes and Todd Sandler, *The Theory of Externalities, Public Goods and Club Goods* (New York: Cambridge University Press, 1996).

⁵⁴Arthur C. Pigou, *The Economics of Welfare*, pp. 135-145, 174-214, 223-227. We use the notion 'returns to the producer' instead of 'the marginal private product' introduced by Pigou and instead of 'private returns' in the subsequent literature. The reason is substance, not connivance. The word 'private' in the literature is meant in the organizational sense, that is, everything that is not government: households and firms. This leaves a big hole in the accounting arithmetic of 'private returns' against social returns. For only if returns to the government as the producer of public services coincide with social returns, can returns to firms and households coincide with social returns. Without taking government services and government receipts into account, one cannot infer from the national income statistics whether or not 'private returns' coincide with social returns, and this defeats the very notion of 'private returns' in the organizational sense. This leads us to redefine the word 'private.' We are more Pigouian than Pigou. We use the term 'private' in his intrinsic sense, that is not the type of organization but the exclusion of non-earners. 'Private' in this sense means exactly the Pigouian coincidence of returns to the producer and social returns. In this sense, private income of the government or privateness of public income necessarily complement private incomes of firms and households. We expand this theme in chapters 3 and 4.

The next part of the story is hard. There are two types of socialization and internalization. They concern: (a) ideas, science, invention, innovation, and technological discoveries when returns to their authors are smaller than returns to the economy, society, and humankind⁵⁵; and (b) confiscations and other redistributions of income and output from producers to non-producers by the government and private predators. The difference between these two types leads us to the second side of the ontological nature of income.

2. Ontologically, people produce two types of goods. Human products can be either additive or subject to redistribution (redistributable, in short). Ideas, science, inventions, innovation, and technological discoveries on the positive list and accidents, fires, and pollution on the negative list typify additive products. They can be used by non-producers without taking them from producers. Indeed, ontologically, they cannot be subtracted from producers. Additive products are non-redistributable products by nature. They add returns to non-producers and the economy at large without subtracting from producers. Thus returns on additive goods are additive themselves.

To employ a familiar metaphor, social returns on additive goods can spill over from producers to non-producers. To use another expression from the literature, social returns on additive goods can create external economies—externalities, in short. This happens when returns on additive goods spill over, primarily when returns to the producers of ideas are smaller than their social returns. Non-producers and the economy at large are not excluded. Social returns are not recovered, not appropriated by producers. This is socialization of additive goods. But some inventions can be kept as trade secrets and many technological ideas can be patented. One can also think of government salaries, grants, and prizes for scientists (direct and indirect, from tax-exempt organizations) and scholarships for students as compensation of producers of ideas. All these devices bring returns to the producers in line with social returns on additive goods.⁵⁶ Social returns are appropriated, recovered by producers in the form of income. This is internalization of additive goods. In the heavy language of the literature, this is internalization of externalities.

Most other products are redistributable. Apart from ideas, pollution, and other additive goods, all output of goods and services is redistributable. All ordinary goods, from bread to computers and from laundry to surgery, are redistributable. Income, being returns on products and factors of production, is redistributable itself. No unit of redistributable products and no unit of income can be used by non-producers/non-earners without taking it from producers/earners. Income cannot be added to non-earners (if they don't produce and earn more) without subtracting it from earners. Non-earners can add income,

⁵⁵A simple proof of social returns on ideas exceeding returns to the producers is that life is short and ideas are long. No life-time income can recover long-term social benefits of ideas. For an additional discussion on the importance of migration flows for proving this proposition, see Robert E. Lucas, "On the Mechanics of Economic Development," *Journal of Monetary Economics* 22, no. 1 (July 1988): 3-42.

⁵⁶On the negative side, pollution and other damages can be negotiated and compensated between property owners because more efficient producers can afford and will be willing to pay less productive ones to stay out of the way. Ronald H. Coase, "The Problem of Social Cost," *Journal of Law and Economics* 3, no. 3 (October 1960): 1-44.

without more production, only by subtracting from earners. This is the ontological mechanism of redistribution.

One can think of redistribution as addition by subtraction. Income can be internalized if non-producers/non-earners are excluded. Then income is not appropriated from producers/earners, not redistributed. This is the definition of private income. Otherwise income is socialized. Non-producers/non-earners are not excluded. Income is appropriated from producers/earners and redistributed to non-producers/non-earners.⁵⁷ This is the definition of common income.

To define private and common income with an accounting precision, we can bring back Pigou’s equivalence and difference between social returns and returns to the producers. In the case of redistributable goods, this is simply the equivalence and difference between production and income.

Private income	Common income
Equivalence between income (returns to the producer) and production (social returns) of redistributable goods	Difference between income (returns to the producer) and production (social returns) of redistributable goods

The distinction of redistributable goods and income as their return is central. Internalization and socialization are strict accounting concepts in the sense of Pigou, but they are vacuous, indeed ambiguous in real economies without specifying externalities vs. redistribution. Internalization of externalities does not break up redistribution and does not make income private. Breakup of redistribution, internalization of income, does not internalize externalities. In some cases, such as public financing of science and education, internalization of externalities may redistribute income from producers of ordinary goods to producers of ideas. The two types of goods create two types of socialization and internalization and two separate dimensions.

Empirically, one can think of cases of common income under central planning and the modern Welfare State which internalize externalities by using patents, pollution charges, public financing of science, and public education. Conversely, historical and developing, early market economies knew few patents, no pollution charges, and little public financing of science and public education but were strong on private income. This matrix can serve as a crude approximation:

⁵⁷The ontological irony of existence is that the most productive individuals, inventors and innovators can be hit twice. First, they may not recover social returns on their products because their ideas spill over. Second, their income, which is already smaller than their social contribution, can be redistributed to less productive individuals. The only solace is posterity, like Louis Pasteur became an adjective on the milk carton.

	Private income	Common income
Externalities internalized	Modern Western market economies without the Welfare State	Modern Welfare States and central planning
Externalities socialized	Historical and developing early market economies	Historical and developing socialist economies

This story is not as hard as it sounds. Plain English can handle it. Internalization of externalities means pay for spillovers, pay for production of ideas and other additive goods. Internalization of income means breakup of takeovers, breakup of subtraction and redistribution of income. To sum it up in vivid form,

- < compensate producers for addition of benefits or costs to non-producers; vs.
- < free producers from redistribution of income by predatory government and private predators.

These are two separate problems and two different policies. These are two dimensions apart.

The income dimension and the externalities dimension

This ontological excursion opens up not one but two new dimensions: the income dimension and the externalities dimension. Their sharp contrast can be summarized as follows:

	The income dimension: Redistributable returns	The externalities dimension: Additive (non-redistributable) returns
Internalization	Income <i>is not</i> appropriated <i>from</i> producers: Private income	Income <i>is</i> appropriated <i>by</i> producers
Socialization	Income <i>is</i> appropriated <i>from</i> producers: Common income	Income <i>is not</i> appropriated <i>by</i> producers

If externalities are spillovers, redistribution is takeovers. One can also distinguish between the two socializations thus: Externalities are natural socialization, redistribution is predatory socialization, social-ISM, commonism. The concept of common income as predatory socialization measured by various extents of income redistribution is comprehensive. Income redistribution subsumes *all* species of predatory activities which have surfaced in the literature, such as governmental extraction, confiscations, diversion,

destructive activities, piracy, rent-seeking, and a legion of others⁵⁸ and integrates them as the species of socialism. Common income is the ultimate definition of socialism. Conversely, private income defines the market economy. This creates a pure dichotomy of market vs. socialism, without mixing them with government and property.

Exclusion in a multi-dimensional world

Which brings us back from ontology to society. We have singled out four dimensions: the property dimension, the government dimension, the income dimension, and the externalities dimension. One uniform measurement organizes all four dimensions—the measurement of exclusion. Each dimension is uniquely defined by exclusion of different subjects from different objects.

The infrastructure dimensions		The returns dimensions	
Property	Government	Income	Externalities
Exclusion of non-owners from property (assets)	Exclusion of government from economic activity	Exclusion of non-producers/non-earners from income of producers/earners	Exclusion of non-producers of ideas from returns on invention and innovation

These are four unique, independent, separate, self-contained dimensions. Each dimension extends by the measure of exclusion.⁵⁹ The more exclusion there is on each dimension, the less socialization or the less

⁵⁸See Douglass C. North and Robert P. Thomas, *The Rise of the Western World: A New Economic History* (Cambridge: Cambridge University Press, 1973), pp. 4-7 and *passim*; Douglass C. North, *Structure and Change in Economic History* (New York: W.W. Norton, 1981), pp. 124-136; Douglass C. North, “Economic Performance Through Time,” *American Economic Review* 84, no. 3 (June 1994): 359-368; William J. Baumol, “Entrepreneurship: Productive, Unproductive, and Destructive,” *Journal of Political Economy* 98, no. 5, pt. 1 (October 1990): 893-921; Robert E. Hall and Charles I. Jones, “The Productivity of Nations,” National Bureau of Economic Research, *Working Paper 5812* (Cambridge, MA: NBER, November 1996); Douglass C. North, William Summerhill, and Barry R. Weingast, “Order, Disorder and Economic Change: Latin America vs. North America,” in Bruce Bueno de Mesquita and Hilton Root, eds., *Governing for Prosperity* (New Haven: Yale University Press, 2000), pp. 17-58; Daron Acemoglu, Simon Johnson, and James A. Robinson, “Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution,” National Bureau of Economic Research, *Working Paper 8460* (Cambridge, MA: NBER, April 2001); and, Daron Acemoglu, Simon Johnson, and James A. Robinson, “The Colonial Origins of Comparative Development: An Empirical Investigation,” *American Economic Review* 91, no. 5 (December 2001): 1369-1401. Chapter 3 and chapter 5 of our book classify 96 species of common income and two species of private income in one table.

⁵⁹Exclusion defines property rights. “Each particular citizen has a propriety to which none of his fellow-citizens hath right.” “Each subject hath an absolute dominion over the goods he is in possession of: that is to say, such a propriety as excludes not only the right of all the rest of his fellow subjects to the same goods, but also the magistrate himself.” Thomas Hobbes, *De Cive or The Citizen*, pp. 80, 134. “Every private man has an absolute propriety in his goods; such as excludeth the right of the sovereign. Every man has indeed a propriety that excludes the right of every other subject.”

government. The less exclusion on each dimension, the more socialization or the more government. This creates a unified framework for the four dimensions. We presented three of these dimensions in figures 2.3 and 2.4 within this unified framework. It is also convenient to combine two pairs of dimensions, treating property and government as infrastructure, and income and externalities as the returns dimensions.⁶⁰

By the extent of exclusion, each dimension forms its own qualitative dichotomy.⁶¹

Government dimension	Property dimension	Income dimension
Limited, non-restrictive (Economic liberty)	Private or state (Property rights)	Private (The market economy)
Big, restrictive	Common	Common (Socialism)

Figures 2.3 and 2.4 illustrate the empirical variety of multi-dimensional combinations. There can be common income with highly restrictive government and state ownership (central planning in Communist countries);⁶² common income with limited, indeed symbiotic government and private property (Enterprise Network Socialism in post-Communist Russia and similar countries); private income with national state and local government property and with a restrictive, but later more limited and fiscally small government (a new

Thomas Hobbes, *Leviathan*, pp. 224-225. For modern rediscovery and refinement, see Sanford J. Grossman and Oliver D. Hart, "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration," and Oliver D. Hart and John Moore, "Property Rights and the Nature of the Firm." Exclusion also defines internalization of externalities in the public goods literature. Paul M. Romer extends this treatment to ordinary, non-public goods. Paul M. Romer, "Two Strategies for Economic Development: Using Ideas and Producing Ideas," in *Proceedings of the World Bank Annual Conference on Development Economics 1992* (Washington, D.C.: The World Bank, 1993), pp. 63-91, especially pp. 71-75.

⁶⁰To simplify presentation of the externalities dimension in the above matrix, we singled out returns on ideas. The reader can substitute other additive products and returns (e.g., exclusion of victims from accidents, fires, and pollution). In general, the caption can read: Exclusion of non-producers of additive goods from additive returns.

⁶¹We leave the externalities dimension aside. It influences technological progress and long-term growth after the breakup of common income and expansion of private income create productive incentives in the first place, or after forced industrial development by the highly restrictive government (central planning) substitutes for lack of incentives. We return to this theme in chapter 3.

⁶²Gary H. Jefferson applies the notion of common property to state-owned enterprises because the government underwrites their expenses and thus redistributes their income. See Gary H. Jefferson, "China's State Enterprises: Public Goods, Externalities, and Coase," *American Economic Review* 88, no. 2 (May 1998): 428-432. He really implies common income without using this concept. This reformulation allows us to describe central planning as a combination of state ownership of enterprises and common income, without losing either dimension of the story. Michael S. Bernstam and Alvin Rabushka move the concept of common ownership from the stock of assets, including enterprises, to the flows of income and expenses and to government, enterprise, and household budgets. See Michael S. Bernstam and Alvin Rabushka, *Fixing Russia's Banks*, pp. 13-14, 32-33.

market economy in post-Communist China);⁶³ common income with private property and big, restrictive government (central planning in Nazi Germany); common income with private property and limited government (slavery in the U.S. Antebellum South); largely private income with a mix of state and private property and relatively big government (Western Europe in the decades after World War II); private income with private property and moderately limited government (the U.S.); and numerous other combinations. Every reader can entertain his own encyclopedic knowledge applying the above matrix and the frames of figures 2.3 and 2.4 to the facts of history and to the map of the world.⁶⁴

A multi-dimensional perspective can better account for diverse post-Communist developments and harness the experience of Western market, central plan, developing, and post-Communist economies in one unified framework. A one-dimensional dichotomy of market vs. government is unable to treat all these different cases within a single, unified framework. It fails to explain even one diverse, post-Communist experience, from the Great Contraction in Russia and similar countries to economic expansion in China and its neighbors. This chapter has introduced a multi-dimensional approach and the income dimension from private to common income. The next chapter expands their dissection. It links private and common income to production.

⁶³The size of the Central government in China, measured by the tax burden as a share of GDP, fell from over 30 percent in 1978 to just over 10 percent in 1995. See Alvin Rabushka, "The Great Tax Cut of China", *Wall Street Journal*, August 7, 1997. Another key feature of China, which converges it with historical and contemporary archetypical market economies is federalism—the devolution of economic and other power to provincial and local governments. See Yuanzheng Cao, Yingui Qian, and Barry R. Weingast, "From Federalism, Chinese Style, to Privatization, Chinese Style," *Economics of Transition* 7, no. 1 (February 1999): 103-131.

⁶⁴One can also incorporate additional important dimensions: the type of political system, governance structure (centralized or federalist), war and peace, geographic conditions, factor endowments (land, natural resources, inherited industrial structure, human capital stock), culture, ideology, household system (family type), demographic regime, and others. A model of the world will look like a polygonal space object with a taxonomy of historical and contemporary societies within it, dropping lines in their measured place on each of the dimensions. A computer program will move countries inside the space when historical information is revised or contemporary conditions change.