3

JAPAN'S TRAP

There was a time, not that long ago, when Americans were obsessed with Japan. The successes of Japanese industry inspired both admiration and fear; you couldn't enter an airport bookstore without encountering rows of dust jackets featuring rising suns and samurai warriors. Some of these books promised to teach the secrets of Japanese management; others prophesied (or demanded) economic warfare. As role models or demons, or both, the Japanese were very much on our minds.

All that is gone now. Japan still makes the headlines now and then, usually when there's bad news—a big fall in the Nikkei, or a disruption of the "carry trade," in which hedge funds borrow cheaply in Japan and lend the money elsewhere. But for the most part we have lost interest. The Japanese weren't that tough after all, the public seems to have concluded, so now we can ignore them.

This is foolish. The failures of Japan are every bit as significant

for us as its successes. What happened to Japan is both a tragedy and an omen. The world's second-largest economy is still blessed with well-educated and willing workers, a modern capital stock, and impressive technological know-how. It has a stable government, which has no difficulty collecting taxes. Unlike Latin America, or for that matter smaller Asian economies, it is a creditor nation, not dependent on the goodwill of foreign investors. And the sheer size of its economy, which means that its producers sell mainly to the domestic market, should give Japan—like the United States—a freedom of action denied to lesser nations.

Yet Japan spent most of the 1990s in a slump, alternating brief and inadequate periods of economic growth with ever-deeper recessions. Once the growth champion of the advanced world, in 1998 Japanese industry produced less than it had in 1991. And even worse than the performance itself was the sense of fatalism and helplessness, the loss of faith in the ability of public policy to turn the situation around. This was a tragedy: a great economy like this does not need or deserve to be in a decade-long slump. Japan's woes were never as acute as those of other Asian nations, but they went on far longer, with far less justification. It was also an omen: if it could happen to the Japanese, who was to say that it couldn't happen to us? And sure enough, it did.

How did it happen to Japan?

Japan as Number One

No country—not even the Soviet Union in the days of Stalin's five-year plans—had ever experienced as stunning an economic transformation as Japan did in the high-growth years from 1953 to 1973. In the space of two decades a largely agricultural nation became the world's largest exporter of steel and automobiles, greater Tokyo

became the world's largest and arguably most vibrant metropolitan area, and the standard of living made a quantum leap.

Some Westerners took notice. As early as 1969 the futurist Herman Kahn published *The Emerging Japanese Superstate*, predicting that Japan's high growth rates would make it the world's leading economy by the year 2000. But it was not until the late 1970s—around the time that Ezra Vogel wrote his best-seller, *Japan as Number One*—that the realization of just how much Japan had achieved really dawned on the wider public. As sophisticated Japanese products—above all, automobiles and consumer electronics—flooded into Western markets, people began to wonder about the secret of Japan's success.

There was a certain irony in the timing of the great debate about Japan: the truth was that the heroic age of Japanese economic growth ended just about the time Westerners started to take Japan seriously. In the early 1970s, for reasons that are still somewhat mysterious, growth slowed throughout the advanced world. Japan, which had had the highest growth rate, also experienced the biggest slowdown—from 9 percent a year in the 1960s to less than 4 percent after 1973. Although this rate was still faster than that of any other advanced country (half again as fast as that of the United States), at that rate the date of Japan's emergence as the world's leading economy would have to be put off well into the twenty-first century. Still, Japan's growth performance was, literally, the envy of other nations. Many people argued not only that Japan had figured out a better way to run its economy but also that its success came at least partly at the expense of naive Western competitors.

We need not replay here the whole debate over why Japan was successful. Basically, there were two sides. One side explained the growth as the product of good fundamentals, above all excellent basic education and a high savings rate, and—as always—also

engaged in a bit of amateur sociology to explain why Japan was so very good at manufacturing high-quality products at low cost. The other side argued that Japan had developed a fundamentally different economic system, a new and superior form of capitalism. The debate over Japan also became a debate over economic philosophy, over the validity of Western economic thought in general and the virtues of free markets in particular.

One element of the supposedly superior Japanese system was government guidance. In the fifties and sixties the Japanese government—both the famed Ministry of International Trade and Industry (MITI) and the quieter but even more influential Ministry of Finance—played a strong role in directing the economy. The economy's growth was at least partly channeled by the government's strategic designs, as bank loans and import licenses flowed to favored industries and firms. By the time the West really focused on Japan, the government's grip had been much loosened, but the image of "Japan Inc.," a centrally directed economy bent on dominating world markets, remained a potent one into the 1990s.

Another element of the distinctive Japanese economic style was the insulation of major companies from short-term financial pressures. Members of Japanese *keiretsu*—groups of allied firms organized around a main bank—typically owned substantial quantities of each other's shares, making management largely independent of the outside stockholders. Nor did Japanese companies worry much about stock prices, or market confidence, since they rarely financed themselves by selling either stocks or bonds. Instead, the main bank lent them the money they needed. So Japanese firms didn't have to worry about short-term profitability, or indeed to worry much about profitability at all. One might have thought that the financial condition of a *keiretsu* bank would in the end discipline corporate investment: if the loans to the bank's affiliates

looked unsound, wouldn't the bank start to lose depositors? But in Japan as in most countries, depositors believed that the government would never allow them to lose their savings, so they paid little attention to what banks did with their money.

The result of this system, claimed both those who admired it and those who feared it, was a country able to take the long view. One by one, the Japanese government would target "strategic" industries that could serve as engines of growth. The private sector would be guided into those industries, helped along by an initial period of protection from foreign competition, during which the industry could hone its skills in the domestic market. Then there would be a great export drive, during which firms would ignore profitability while building market share and driving their foreign competitors into the ground. Eventually, its dominance of the industry secured, Japan would move on to the next one. Steel, autos, VCRs, semiconductors—soon it would be computers and aircraft.

Skeptics poked holes in many of the details of this account. But even those who absolved Japan of the charge of predatory behavior, who questioned whether the wizards of MITI were really as all-knowing as advertised, tended to agree that the distinctive characteristics of the Japanese system must have something to do with Japanese success. Only much later would those same distinctive characteristics—the cozy relationship between government and business, the extension of easy credit by government-guaranteed banks to closely allied companies—come to be labeled crony capitalism and seen as the root of economic malaise.

But the weaknesses of the system were actually evident by the late 1980s, to anyone willing to see.

Bubble, Toil and Trouble

At the beginning of 1990 the market capitalization of Japan—the total value of all the stocks of all the nation's companies—was larger than that of the United States, which had twice Japan's population and more than twice its gross domestic product. Land, never cheap in crowded Japan, had become incredibly expensive: according to a widely cited factoid, the land underneath the square mile of Tokyo's Imperial Palace was worth more than the entire state of California. Welcome to the "bubble economy," Japan's equivalent of the Roaring Twenties.

The late 1980s represented a time of prosperity for Japan, of fast growth, low unemployment, and high profits. Nonetheless, nothing in the underlying economic data justified the tripling of both land and stock prices during that period. Even at the time many observers thought that there was something manic and irrational about the financial boom—that traditional companies in slowly growing industries should not be valued like growth stocks, with price-earnings ratios of 60 or more. But as is so often the case in manic markets, the skeptics were without the resources, or the courage, to back their lack of conviction; conventional wisdom found all sorts of justifications for the sky-high prices.

Financial bubbles are nothing new. From tulip mania to Internet mania, even the most sensible investors have found it hard to resist getting caught up in the momentum, to take a long view when everyone else is getting rich. But given the reputation of the Japanese for long-term strategic thinking, the common perception that Japan Inc. was more like a planned economy than a free-market free-for-all, the extent of the bubble remains somewhat surprising.

Now, Japan's reputation for long-sighted, socially controlled investment always exaggerated the reality. Real estate speculators,

often getting an extra edge by paying off politicians, and another extra edge through *yakuza* connections, have been a surprisingly important part of the Japanese scene for as long as anyone can remember. Speculative investments in real estate came close to provoking a banking crisis in the 1970s; the situation was saved only through a burst of inflation, which reduced the real value of the speculators' debts and turned bad loans good again. Still, the sheer extent of Japan's bubble was astonishing. Was there some explanation of the phenomenon that ran beyond mere crowd psychology?

Well, it turns out that Japan's bubble was only one of several outbreaks of speculative fever around the world during the 1980s. All of these outbreaks had the common feature that they were financed mainly by bank loans—in particular, that traditionally staid institutions started offering credit to risk-loving, even shady operators in return for somewhat above-market interest rates. The most famous case was that of America's savings and loan associations—institutions whose public image used to be defined by the all-American earnestness of Jimmy Stewart's small-town banker in *It's a Wonderful Life*, but which in the 1980s became identified instead with high-rolling Texas real estate moguls. But similar outbreaks of dubious lending occurred elsewhere, notably in Sweden, another country not usually associated with speculative fever. And economists have long argued that behind all such episodes lies the same economic principle—one, like the basic baby-sitting model of a recession, that will reappear several times in this book. The principle is known as moral hazard.

The term "moral hazard" has its origins in the insurance industry. Very early in the game providers of fire insurance, in particular, noticed that property owners who were fully insured against loss had an interesting tendency to have destructive fires—particularly

when changing conditions had reduced the probable market value of their building to less than the insurance coverage. (In the mid-1980s New York City had a number of known "arson-prone" landlords, some of whom would buy a building at an inflated price from a dummy company they themselves owned, use that price as the basis for a large insurance policy, then just happen to have a fire. Moral hazard, indeed.) Eventually the term came to refer to any situation in which one person makes the decision about how much risk to take, while someone else bears the cost if things go badly.

Borrowed money is inherently likely to produce moral hazard. Suppose that I'm a smart guy, but without any capital, and that based on my evident cleverness you decide to lend me a billion dollars, to invest any way I see fit, as long as I promise to repay in a year's time. Even if you charge me a high rate of interest, this is a great deal: I will take the billion, put it into something that *might* make a lot of money, but then again might end up worthless, and hope for the best. If the investment prospers, so will I; if it does not, I will declare personal bankruptcy, and walk away. Heads I win, tails you lose.

Of course, that is why nobody will lend someone without capital of his own a billion dollars to invest as he sees fit, no matter how smart he may seem. Creditors normally place restrictions on what borrowers can do with any money they lend, and borrowers are also normally obliged to put up substantial amounts of their own money, in order to give them a good reason to avoid losses.

Sometimes lenders seem to forget about these rules and lend large sums, no questions asked, to people who put on a good show of knowing what they are doing. We'll get to the amazing story of the hedge funds in Chapter 6. At other times the requirement that the borrower put up enough of his own money can itself be a source of market instability. When assets lose value, those who

bought them with borrowed money can be faced with a "margin call": they must either put more of their own money in or repay their creditors by selling the assets, driving the prices down still further, a process that has been central to the current financial crisis. But leaving such market pathologies aside, there is another reason why the rules sometimes get broken: because the moral hazard game is played at taxpayers' expense.

Remember what we said about the main banks of Japanese *keiretsu:* that their depositors believed that their deposits were safe because the government stood behind them. The same is true of almost all banks in the First World, and most banks elsewhere. Modern nations, even if they do not explicitly guarantee deposits, cannot find it in their hearts to let widows and orphans lose their life savings simply because they put them in the wrong bank, just as they cannot bring themselves to stand aside when the raging river sweeps away houses foolishly built in the flood plain. Only the most hard-nosed of conservatives would wish it otherwise. But the result is that people are careless about where they build their houses, and even more careless about where they store their money.

This carelessness offers a tempting opportunity to unscrupulous businessmen: just open a bank, making sure that it has an impressive building and a fancy name. Attract a lot of deposits, by paying good interest if that is allowed, by offering toasters or whatever if it isn't. Then lend the money out, at high interest rates, to high-rolling speculators (preferably friends of yours, or maybe even yourself behind a different corporate front). The depositors won't ask about the quality of your investments since they know that they are protected in any case. And you now have a one-way option: if the investments do well, you become rich; if they do badly, you can simply walk away and let the government clean up the mess.

Okay, it's not that easy, because government regulators aren't

entirely stupid. In fact, from the 1930s to the 1980s this kind of behavior was quite rare among bankers because regulators did more or less the same things that a private lender would normally do before handing me a billion dollars to play with. They restricted what banks could do with depositors' money in an effort to prevent excessive risk-taking. They required that the owners of banks put substantial amounts of their own money at stake, through capital requirements. And in a more subtle, perhaps unintentional measure, regulators historically limited the amount of competition among banks, making a banking license a valuable thing in itself, possessed of a considerable "franchise value"; licensees were loath to jeopardize this franchise value by taking risks that could break the bank.

But in the 1980s these restraints broke down in many places. Mainly the cause was deregulation. Traditional banks were safe, but also very conservative; arguably they failed to direct capital to its most productive uses. The cure, argued reformers, was both more freedom and more competition: let banks lend where they thought best, and allow more players to compete for public savings. Somehow reformers forgot that this would give banks more freedom to take bad risks and that by reducing their franchise value it would give them less incentive to avoid them. Changes in the marketplace, notably the rise of alternative sources of corporate finance, further eroded the profit margins of bankers who clung to safe, old-fashioned ways of doing businesses.

And so in the 1980s there was a sort of global epidemic of moral hazard. Few countries can be proud of their handling of the situation—surely not the United States, whose mishandling of the savings and loan affair was a classic case of imprudent, short-sighted, and occasionally corrupt policymaking. But Japan, where all the usual lines—between government and business, between

banks and their clients, between what was and what was not subject to government guarantee—were especially blurry, was peculiarly ill suited to a loosened financial regime. Japan's banks lent more, with less regard for quality of the borrower, than anyone else's. In so doing they helped inflate the bubble economy to grotesque proportions.

Sooner or later, bubbles always burst. The bursting of the Japanese bubble wasn't entirely spontaneous: the Bank of Japan, concerned about speculative excess, began raising interest rates in 1990 in an effort to let some of the air out of the balloon. At first this policy was unsuccessful, but beginning in 1991 land and stock prices began a steep decline, which within a few years brought them some 60 percent below their peak.

Initially, and indeed for several years thereafter, Japanese authorities seem to have regarded all of this as healthy—a return to more sensible, realistic asset valuations. But it gradually became apparent that the end of the bubble economy had brought not economic health but a steadily deepening malaise.

A Stealthy Depression

Unlike Mexico in 1995, South Korea in 1998, and Argentina in 2002, Japan never went through a year of unmistakable, catastrophic economic decline. In the decade after the bubble burst, Japan experienced only two years in which real GDP actually fell.

But year after year growth fell short, not just of the economy's previous experience but of any reasonable estimate of the growth in its capacity. There was one year in the decade after 1991 in which Japan grew as fast as it did in an *average* year in the preceding decade. Even if you take a conservative estimate of the growth in Japan's "potential output," the output the economy could have

produced with full employment of resources, there was also only one year in which actual output grew as rapidly as potential.

Economists have one of their famously awkward phrases for what Japan was experiencing: a "growth recession." A growth recession is what happens when an economy grows but this growth isn't fast enough to keep up with the economy's expanding capacity, so that more and more machines and workers stand idle. Normally growth recessions are rather rare, because both booms and slumps tend to gather momentum, producing either rapid growth or clear-cut decline. Japan, however, essentially experienced a decade-long growth recession, which left it so far below where it should have been that it verged on a new phenomenon: a growth depression.

The slowness with which Japan's economy deteriorated was in itself a source of much confusion. Because the depression crept up on the country, there was never a moment at which the public clamored for the government to do something dramatic. Because Japan's economic engine gradually lost power rather than coming to a screeching halt, the government itself consistently defined success down, regarding the economy's continuing growth as a vindication of its policies even though that growth was well short of what could and should have been achieved. And at the same time, both Japanese and foreign analysts tended to assume that because the economy grew so slowly for so long, it *couldn't* grow any faster.

So Japan's economic policies were marked by an odd combination of smugness and fatalism—and by a noticeable unwillingness to think hard about how things could have gone so very wrong.

Japan's Trap

There is nothing mysterious about the onset of Japan's slump in 1991: sooner or later the financial bubble was bound to burst,

and when it did it would bring about a decline in investment, in consumption, and hence in overall demand. The same thing happened in the United States after the U.S. stock market bubble of the 1990s burst, and again after the next decade's housing bubble popped. The question, however, is why Japan's policymakers, in particular its central bank, weren't able to get the economy moving again.

It is time to return to the story of the baby-sitting co-op. Suppose that the U.S. stock market were to crash, undermining consumer confidence. Would this inevitably mean a disastrous recession? Think of it this way: when consumer confidence declines, it is as if for some reason the typical member of the co-op had become less willing to go out, more anxious to accumulate coupons for a rainy day. This could indeed lead to a slump—but need not, if the management were alert and responded by simply issuing more coupons. That is exactly what our head coupon issuer, Alan Greenspan, did in 1987.

Or suppose that the coupon issuer didn't respond quickly enough, and that the economy did indeed fall into a slump. Don't panic: even if the head coupon issuer temporarily gets behind the curve, he can still ordinarily turn the situation around by issuing more coupons—that is, with a vigorous monetary expansion, like the ones that ended the U.S. recessions of 1981–82, 1990–91, and 2001.

What about all the bad investments made during the boom? Well, that was so much wasted capital. But there is no obvious reason why bad investments made in the past require an actual slump in output in the present. Productive capacity may not have risen as much as anticipated, but it has not actually fallen; why not just print enough money to keep spending up so that the economy makes full use of the capacity it has?

Remember, the story of the co-op tells you that economic

slumps are not punishments for our sins, pains that we are fated to suffer. The Capitol Hill co-op didn't get into trouble because its members were bad, inefficient baby-sitters; its troubles did not reveal the fundamental flaws of "Capitol Hill values" or "crony baby-sittingism." It had a technical problem—too many people chasing too little scrip—which could be, and was, solved with a little clear thinking. And so the co-op's story ought to inoculate us against fatalism and pessimism. It seems to imply that recessions are always, and indeed easily, curable.

But in that case why didn't Japan pull up its socks after the bubble burst? How could Japan get stuck in a seemingly intractable slump—one that it didn't appear able to get out of simply by printing coupons? Well, if we extend the co-op's story a little bit, it is not hard to generate something that looks a lot like Japan's problems.

First, we have to imagine a co-op whose members realized that there was an unnecessary inconvenience in their system: there would be occasions when a couple would find itself needing to go out several times in a row, and would run out of coupons—and therefore would be unable to get its babies sat—even though it was entirely willing to do lots of compensatory baby-sitting at a later date. To resolve this problem, we'll suppose the co-op allowed members to *borrow* extra coupons from the management in times of need, repaying with the coupons received from subsequent baby-sitting. (We could move the story a bit closer to the way real economies work by imagining that couples could also borrow coupons from each other; the interest rate in this infant capital market would then play the role the "discount rate" of the co-op management plays in our parable.) To prevent members from abusing this privilege, however, the management would need to impose some penalty, requiring borrowers to repay more coupons than they borrowed.

Under this new system, couples would hold smaller reserves of coupons than before, knowing that they could borrow more if necessary. The co-op's officers would, however, have acquired a new tool of management. If members of the co-op reported that it was easy to find baby-sitters, hard to find opportunities to baby-sit, the terms under which members could borrow coupons could be made more favorable, encouraging more people to go out. If baby-sitters were scarce, those terms could be worsened, encouraging people to go out less.

In other words, this more sophisticated co-op would have a central bank that could stimulate a depressed economy by reducing the interest rate, cool off an overheated one by raising it.

But in Japan interest rates fell almost to zero, and still the economy slumped. Have we finally exhausted the usefulness of our parable?

Well, imagine that there is a seasonality in the demand and supply for baby-sitting. During the winter, when it's cold and dark, couples don't want to go out much but are quite willing to stay home and look after other people's children—thereby accumulating points they can use on balmy summer evenings. If this seasonality isn't too pronounced, the co-op could still keep the supply and demand for baby-sitting in balance by charging low interest rates in the winter months, higher rates in the summer. But suppose that the seasonality is very strong indeed. Then in the winter, even at a zero interest rate, there will be more couples seeking opportunities to baby-sit than there are couples going out, which means that baby-sitting opportunities will be hard to find, which means that couples seeking to build up reserves for summer fun will be even less willing to use those points in the winter, meaning even fewer opportunities to baby-sit . . . and the co-op will slide into a recession even at a zero interest rate.

And the 1990s were the winter of Japan's discontent. Perhaps because of its aging population, perhaps also because of a general nervousness about the future, the Japanese public didn't appear willing to spend enough to use the economy's capacity, even at a zero interest rate. Japan, say the economists, fell into the dread "liquidity trap." And what you have just read is an infantile explanation of what a liquidity trap is and how it can happen.

Japan Adrift

The standard response to a recession is to cut interest rates—to allow people to borrow baby-sitting coupons cheaply so that they will begin going out again. Japan was slow to cut interest rates after the bubble burst, but it eventually cut them all the way to zero, and it still wasn't enough. Now what?

The classic answer, the one that has been associated with the name of John Maynard Keynes, is that if the private sector won't spend enough to maintain full employment, the public sector must take up the slack. Let the government borrow money and use the funds to finance public investment projects—if possible to good purpose, but that is a secondary consideration—and thereby provide jobs, which will make people more willing to spend, which will generate still more jobs, and so on. The Great Depression in the United States was brought to an end by a massive deficit-financed public works program, known as World War II. Why not try to jump-start Japanese growth with a more pacific version of the same?

Japan tried. During the 1990s the government produced a series of stimulus packages, borrowing money to build roads and bridges whether the country needed them or not. These packages created jobs directly and boosted the economy as a whole every time they were tried.

The trouble was that the programs didn't get enough bang for the yen. In 1991 Japan's government was running a fairly hefty budget surplus (2.9 percent of GDP). By 1996 it was running a quite nasty deficit of 4.3 percent of GDP. Yet the economic engine was still sputtering. Meanwhile, the ever-growing deficits were starting to worry Japan's Ministry of Finance, which was concerned about the long-term budget position. The big concern was demographics (which may also have a lot to do with Japan's high savings and low investment demand). Like other countries, Japan had a baby boom followed by a baby bust, and faces the prospect of a rising ratio of retirees to workers. But Japan's problem is extreme: its working-age population is actually declining steadily, even as the number of retirees rapidly grows. And since retired citizens are a heavy fiscal burden on modern governments—recipients of expensive public pensions and health care—standard fiscal principles said that Japan should be building up a trust fund to meet the future bills, not running ever-growing deficits.

In 1997 the voices of fiscal responsibility prevailed, and Prime Minister Ryutaro Hashimoto increased taxes to reduce the budget deficit. The economy promptly plunged into recession.

So it was back to deficit spending. In 1998 Japan introduced a massive new program of public works. But the fiscal issue had now been raised, and it refused to go away. Investors soon noticed that Japan was projecting a deficit of 10 percent of GDP, and that the ratio of government debt to GDP was already above 100 percent. These are the kinds of numbers usually associated with Latin American nations at risk of hyperinflation. Nobody really expected hyperinflation in Japan, but investors were getting at least a bit worried about the long-term soundness of that government's finances. In short, the attempt to jump-start the economy with deficit spending seemed to be reaching its limits.

What other options were there?

If government spending is one standard response to a stalled economy, pumping up the banks is another. One widely held view about the Great Depression is that it persisted so long because the banking crises of 1930–31 inflicted long-term damage to credit markets. According to this view, there were businessmen who would have been willing to spend more if they could have gotten access to credit, and who would in fact have been qualified borrowers. But the bankers who could have made those loans were themselves either out of business or unable to raise funds because the public's confidence in banks had been so shaken. In terms of the baby-sitting co-op, this amounts to saying that there were people who would have been willing to go out in the winter and baby-sit in the summer, but who could not get anybody to lend them the necessary coupons.

Now, Japan's banks made a lot of bad loans in the bubble economy years, and the long stagnation that followed turned many other loans bad as well. So one theory of Japan's slump was that the country was in a liquidity trap mainly because its banks were financially weak; fix the banks and the economy would recover. And in late 1998 Japan's legislature put together a $500 billion bank rescue plan.

Yet another option for Japan was to do whatever it took to get a bit of inflation going. This option needs some explaining.

The truth is that economists didn't think much about the subject of liquidity traps for a very long time. Before Japan's troubles in the 1990s, the last time a major economy appeared to be in such a trap was the United States in the late 1930s. And economic historians have tended to downplay the significance of that experience by arguing either that it wasn't a true liquidity trap—that the Fed could have gotten us out if it had tried hard enough—or that

we got into that trap only through extraordinary policy mistakes, unlikely to be repeated. So as the outlines of Japan's trap became clear in the mid-1990s, economists were basically unprepared—and, if I may be critical of my profession, uninterested. I continue to be astonished at how few economists around the world realized just how important a problem Japan's trap was both as a practical matter and as a challenge to our economic doctrines.

But economics is, as the great Victorian economist Alfred Marshall said, "not a body of concrete truth, but an engine for the discovery of concrete truth." Or to put it in less elevated language, old models can be taught to perform new tricks. As we saw in my revised version of the baby-sitting story, a model designed to explain why a central bank can normally cure a recession by cutting interest rates can also illuminate the circumstances under which this over-the-counter remedy does not work. And this revised parable also, it turns out, offers some guidance on ways to get out of a liquidity trap, or at least on how to avoid getting into one in the first place .

Remember, the basic problem with the baby-sitting co-op is that people want to save the credit they earn from baby-sitting in the winter to use in the summer, even at a zero interest rate. But in the aggregate the co-op's members *can't* save up winter baby-sitting for summer use; so individual efforts to do so end up producing nothing but a winter slump.

The answer, as any economist should immediately realize, is to get the price right: to make it clear that points earned in the winter will be devalued if held until the summer—say, to make five hours of baby-sitting credit earned in the winter melt into only four hours by summer. This will encourage people to use their baby-sitting hours sooner, and hence create more baby-sitting opportunities. You might be tempted to think that there is something unfair about

this—that it means expropriating people's savings. But the reality is that the co-op as a whole *cannot* bank winter baby-sitting for summer use, so it is actually distorting members' incentives to allow them to trade winter for summer hours on a one-for-one basis.

But what in the non-baby-sitting economy corresponds to our coupons that melt in the summer? The answer is *inflation*, which causes the real value of money to melt away over time. Or to be more precise, one thing that can get an economy out of a liquidity trap is *expected* inflation, which discourages people from hoarding money. Once you take the possibility of a liquidity trap seriously—and the case of Japan makes it clear that we should—it's impossible to escape the conclusion that expected inflation can be a good thing, because it helps you get out of the trap. I have explained the virtues of inflation in terms of the whimsical parable of the baby-sitting co-op, but the same conclusion also pops out from application of any of the standard mathematical models that economists conventionally use to discuss monetary policy. Indeed, there has long been a strand of thought that says that moderate inflation may be necessary if monetary policy is to be able to fight recessions. Still, advocates of inflation have had to contend with a deep-seated sense that stable prices are always desirable, that to promote inflation is to create perverse and dangerous incentives. This belief in the importance of price stability is not based on standard economic models—on the contrary, the usual textbook theory, when applied to Japan's unusual circumstances, points directly to inflation as the natural solution. But conventional economic theory and conventional economic wisdom are not always the same thing—a conflict that would become increasingly apparent as one country after another found itself having to make hard choices in the face of financial crisis.

Japan's Recovery

Japan's economy finally began to show some signs of recovery around 2003. Real GDP started growing at slightly more than 2 percent a year, unemployment came down, and the grinding deflation afflicting the economy (and worsening the liquidity trap) abated, although there was no sign of actual inflation. What went right?

The answer, mainly, was exports. In the middle years of this decade the United States ran huge trade deficits, importing vast quantities of manufactured goods. Some of these goods came from Japan, although the biggest growth came in imports from China and other emerging economies. But Japan benefited from Chinese growth too, because many Chinese manufactured goods contain components made in Japan. One flip side of America's import boom, then, was rising Japanese exports and a recovering Japanese economy.

Japan's escape from its trap remained provisional, however. The call money rate in Japan, the equivalent of the Federal funds rate (the rate set by the Federal Reserve), was only 0.5 percent at the time of writing. This meant that the Bank of Japan had very little room to cut interest rates in the face of the recession that seemed to be looming. And if the recession is deep, Japan will be right back in its trap.

4

ASIA'S CRASH

Thailand isn't really a small country. It has more citizens than Britain or France; Bangkok is a vast urban nightmare whose traffic is every bit as bad as legend has it. Still, the world economy is almost inconceivably huge, and in the commercial scheme of things Thailand is pretty marginal. Despite rapid growth in the 1980s and 1990s, it is still a poor country; all those people have a combined purchasing power no greater than that of the population of Massachusetts. One might have thought that Thai economic affairs, unlike those of an economic behemoth like Japan, were of interest only to the Thais, their immediate neighbors, and those businesses with a direct financial stake in the country.

But the 1997 devaluation of Thailand's currency, the baht, triggered a financial avalanche that buried much of Asia. The crucial questions are why that happened and, indeed, how it even *could* have happened. But before we get to why and how, let's review

what: the story of Thailand's boom, its crash, and the spread of that crash across Asia.

The Boom

Thailand was a relative latecomer to the Asian miracle. Traditionally mainly an agricultural exporter, it started to become a major industrial center only in the 1980s, when foreign firms—especially Japanese—began siting plants in the country. But when the economy did take off, it did so very impressively: as peasants moved from the countryside into the new urban jobs, as the good results experienced by the first wave of foreign investors encouraged others to follow, Thailand began growing at 8 percent or more per year. Soon the famed temples of Bangkok lay in the shadow of office and apartment towers. Like its neighbors, Thailand became a place where millions of ordinary people were beginning to emerge from desperate poverty into at least the beginnings of a decent life, and where some people were becoming very rich.

Until the early 1990s, most of the investment associated with this growth came from the savings of the Thais themselves. Foreign money built the big export factories, but the smaller businesses were financed by local businessmen out of their own savings, and the new office and apartment blocks were financed out of the bank deposits of domestic households. In 1991 Thailand's foreign debt was slightly less than its annual exports—not a trivial ratio but one that was well within normal bounds of safety. (In the same year Latin American debt averaged 2.7 times exports.)

During the 1990s, however, Thailand's financial self-sufficiency began to erode. The push mainly came from outside. The resolution of the Latin debt crisis, described in Chapter 2, made investment in the Third World respectable again. The fall of Communism, by

diminishing the perceived threat of radical takeover, made investing outside the safety of the Western world seem less risky than before. In the early 1990s interest rates in advanced countries were exceptionally low because central banks were trying to boot their economies out of a mild recession, and many investors went abroad in search of higher yields. Perhaps most crucial of all, investment funds coined a new name for what had previously been called Third World or developing countries: now they were "emerging markets," the new frontier of financial opportunity.

Investors responded in droves. In 1990 private capital flows to developing countries were $42 billion, and official agencies like the International Monetary Fund and the World Bank financed more investment in the Third World than all private investors combined. By 1997, however, while the flow of official money had actually slowed, the flow of private capital to developing countries had quintupled, to $256 billion. At first most of the money went to Latin America, especially Mexico, but after 1994 it increasingly went to the apparently safer economies of Southeast Asia.

How did the money get from Tokyo or Frankfurt to Bangkok or Djakarta? (Most of the lending to Asia was Japanese or European—through wisdom or luck, U.S. banks mainly stayed on the sidelines.) What did it do when it got there? Let's follow the steps.

Start with a typical transaction: A Japanese bank makes a loan to a Thai "finance company," an institution whose main purpose is to act as a conveyor belt for foreign funds. The finance company now has yen, which it uses to make a loan at a higher interest rate, to a local real estate developer. But the developer wants to borrow baht, not yen, since he must buy land and pay his workers in local currency. So the finance company goes to the foreign exchange market and exchanges its yen for baht.

Now, the foreign exchange market, like other markets, is gov-

erned by the law of supply and demand: increase the demand for something, and its price will normally rise. That is, the demand for baht by the finance company will tend to make the baht rise in value against other currencies. But during the boom years Thailand's central bank was committed to maintaining a stable rate of exchange between the baht and the U.S. dollar. To do this, it would have to offset any increase in the demand for baht by also increasing the supply: selling baht and buying foreign currencies like the dollar or yen. So the indirect result of that initial yen loan would be an increase both in the Bank of Thailand's reserves of foreign exchange and in the Thai money supply. And there would also be an expansion of credit in the economy—not only the loan directly provided by the finance company but also additional credit provided by the banks in which the newly created baht were deposited. And since much of the money lent out would itself end up back in the banks in the form of new deposits, this would finance yet further new loans, and so on, in the classic "money multiplier" process taught in Econ 101. (My description of Argentina's 1995 banking crisis was an example of this same process running in reverse.)

As more and more loans poured in from abroad, then, the result was a massive expansion of credit, which fueled a wave of new investment. Some of this took the form of actual construction, mainly office and apartment buildings, but there was a lot of pure speculation too, mainly in real estate, but also in stocks. By early 1996 the economies of Southeast Asia were starting to bear a strong family resemblance to Japan's "bubble economy" of the late 1980s.

Why didn't the monetary authorities put curbs on the speculative boom? The answer is that they tried but failed. In all the Asian economies, central banks tried to "sterilize" the capital inflows: obliged to sell baht in the foreign exchange market, the Bank of

Thailand would try to buy those baht back elsewhere by selling bonds, in effect borrowing back the money it had just printed. But this borrowing drove up local interest rates, making borrowing from overseas even more attractive and pulling in yet more yen and dollars. The effort to sterilize failed: credit just kept on growing.

The only way the central bank could have prevented money and credit from ballooning would have been to stop trying to fix the exchange rate—to simply let the baht rise. And this is indeed what many Monday-morning quarterbacks now say the Thais should have done. But at the time this seemed like a bad idea: a stronger baht would make Thai exports less competitive on world markets (because wages and other costs would be higher in dollars), and in general the Thais thought that a stable exchange rate was good for business confidence, that they were too small a nation to endure the kind of widely fluctuating exchange rate the United States lives with.

And so the boom was allowed to run its course. Eventually, as an economics textbook would tell you, the expansion of money and credit was self-limiting. Soaring investment, together with a surge of spending by newly affluent consumers, led to a surge in imports, while the booming economy pulled up wages, making Thai exports less competitive (especially because China, an important competitor for Thailand, had devalued its own currency in 1994). So export growth slowed down. The result was a huge trade deficit. Instead of feeding domestic money and credit, those foreign-currency loans started paying for imports.

And why not? Some economists argued—just as Mexico's boosters had argued in the early 1990s—that the trade deficits of Thailand, Malaysia, and Indonesia were a sign not of economic weakness but of economic strength, of markets working the way they were supposed to. To repeat the argument: as a matter of

sheer accounting, a country that is attracting net inflows of capital must be running a current account deficit of equal size. So as long as you thought that the capital inflows to Southeast Asia were economically justified, so were the trade deficits. And why wasn't it reasonable for the world to invest a lot of capital in Southeast Asia, given the region's record of growth and economic stability? After all, this wasn't a case of governments on a spending spree: while Malaysia and Indonesia had their share of grandiose public projects, they were being paid for out of current revenue, and budgets were more or less in balance. So these trade deficits were the product of private-sector decisions; why should these decisions be second-guessed?

Still, a growing number of observers started to feel a bit uneasy as the deficits of Thailand and Malaysia grew to 6, 7, 8 percent of GDP—the sorts of numbers Mexico had had before the tequila crisis. The Mexican experience had convinced some economists that international capital flows, even if they represented the undistorted decisions of the private sector, were not necessarily to be trusted. The bullishness of investors about Asian prospects bore a disturbing resemblance to their bullishness about Latin America a couple of years earlier. And the Mexican experience also suggested that a reversal of market sentiment, when it came, would be sharp and hard to deal with.

What we also should have noticed was that the claim that Asian borrowing represented free private-sector decisions was not quite the truth. For Southeast Asia, like Japan in the bubble years, had a moral hazard problem—the problem that would soon be dubbed crony capitalism.

Let's go back to that Thai finance company, the institution that borrowed the yen that started the whole process of credit expansion. What, exactly, were these finance companies? They were not,

as it happens, ordinary banks: by and large they had few if any depositors. Nor were they like Western investment banks, repositories of specialized information that could help direct funds to their most profitable uses. So what was their reason for existence? What did they bring to the table?

The answer, basically, was political connections—often, indeed, the owner of the finance company was a relative of some government official. And so the claim that the decisions about how much to borrow and invest represented private-sector judgments, not to be second-guessed, rang more than a bit hollow. True, loans to finance companies were not subject to the kind of formal guarantees that backed deposits in U.S. savings and loans. But foreign banks that lent money to the minister's nephew's finance company can be forgiven for believing that they had a little extra protection, that the minister would find a way to rescue the company if its investments did not work out as planned. And the foreign lenders would have been right: in roughly nine out of ten cases, foreign lenders to finance companies did indeed get bailed out by the Thai government when the crisis came.

Now look at the situation from the point of view of the minister's nephew, the owner of the finance company. Basically, he was in a position to borrow money at low rates, no questions asked. What, then, could be more natural than to lend that money at a high rate of interest to his friend the real estate developer, whose speculative new office tower just might make a killing—but then again might not. If all went well, fine: both men would have made a lot of money. If things did not turn out as hoped, well, not so terrible: the minister would find a way to save the finance company. Heads the nephew wins, tails the taxpayer loses.

One way or another, similar games were being played in all the countries that would soon be caught up in the crisis. In Indonesia

middlemen played less of a role: there the typical dubious transaction was a direct loan from a foreign bank to a company controlled by one of the president's cronies. (The quintessential example was the loan that broke Hong Kong's Peregrine Investment Holdings, a loan made directly to Suharto's daughter's taxi company.) In Korea the big borrowers were banks effectively controlled by *chaebol*, the huge conglomerates that have dominated the nation's economy and—until very recently—its politics. Throughout the region, then, implicit government guarantees were helping underwrite investments that were both riskier and less promising than would have been undertaken without those guarantees, adding fuel to what would probably anyway have been an overheated speculative boom.

Given all of this, the development of some kind of crisis was not too surprising. Some of us can even claim to have predicted currency crises more than a year in advance. But nobody realized just how severe the crisis would be.

July 2, 1997

During 1996 and the first half of 1997 the credit machine that had created Thailand's boom began to slip into reverse. Partly this was because of external events: markets for some of Thailand's exports went soft, a depreciation of Japan's yen made Southeast Asian industry a bit less competitive. Mostly, though, it was simply a matter of the house beating the gamblers, which in the long run it always does: a growing number of the speculative investments that had been financed, directly or indirectly, by cheap foreign loans went sour. Some speculators went bust, and some finance companies went out of business. Foreign lenders became increasingly reluctant to lend any more money.

The loss of confidence was to a certain extent a self-reinforcing process. As long as real estate prices and stock markets were booming, even questionable investments tended to look good. As the air began to go out of the bubble, losses began to mount, further reducing confidence and causing the supply of fresh loans to shrink even more. Even before the July 2 crisis, land and stock values had fallen a long way from their peaks.

The slowdown in foreign borrowing also posed problems for the central bank. With fewer yen and dollars coming in, the demand for baht on the foreign exchange market declined; meanwhile, the need to change baht into foreign currencies to pay for imports continued unabated. In order to keep the value of the baht from declining, the Bank of Thailand had to do the opposite of what it had done when capital starting coming in: it went into the market to exchange dollars and yen for baht, supporting its own currency. But there is an important difference between trying to keep your currency down and trying to keep it up: the Bank of Thailand can increase the supply of baht as much as it likes, because it can simply print them; but it cannot print dollars. So there was a limit on its ability to keep the baht up. Sooner or later it would run out of reserves.

The only way to sustain the value of the currency would have been to reduce the number of baht in circulation, driving up interest rates and thus making it attractive once again to borrow dollars to reinvest in baht. But this posed problems of a different sort. As the investment boom sputtered out, the Thai economy had slowed—there was less construction activity, which meant fewer jobs, which meant lower income, which meant layoffs in the rest of the economy. Although it wasn't quite a full-fledged recession, the economy was no longer living in the style to which it had become accustomed. To raise interest rates would be to discour-

age investment further, and perhaps push the economy into an unambiguous slump.

The alternative was to let the currency go: to stop buying baht and let the exchange rate slide. But this too was an unattractive option, not only because a devaluation of the currency would hurt the government's reputation but also because so many banks, finance companies, and other Thai businesses had debts in dollars. If the value of the dollar in terms of baht were to increase, many of them would find themselves insolvent.

So the Thai government dithered. It wasn't willing to let the baht fall; nor was it willing to take the kind of harsh domestic measures that would have stemmed the loss in reserves. Instead, it played a waiting game, apparently hoping that something would eventually turn up.

All of this was according to the standard script: it was the classic lead-in to a currency crisis, of the kind that economists love to model—and speculators love to provoke. As it became clear that the government did not have the stomach to turn the screws on the domestic economy, it became increasingly likely that eventually the baht would be allowed to fall in value. But since it hadn't happened yet, there was still time to take advantage of the prospective event. As long as the baht-dollar exchange rate seemed likely to remain stable, the fact that interest rates in Thailand were several points higher than in the United States provided an incentive to borrow in dollars and lend in baht. But once it became a high probability that the baht would soon be devalued, the incentive was to go the other way—to borrow in baht, expecting that the dollar value of these debts would soon be reduced, and acquire dollars, expecting that the baht value of these assets would soon increase. Local businessmen borrowed in baht and paid off their dollar loans; wealthy Thais

sold their holdings of government debt and bought U.S. Treasury bills; and last but not least, some large international hedge funds began borrowing baht and converting the proceeds into dollars.

All of these actions involved selling baht and buying other currencies, which meant that they required the central bank to buy even more baht to keep the currency from falling, which depleted its reserves of foreign exchange even faster—which further reinforced the conviction that the baht was going to be devalued sooner rather than later. A classic currency crisis was in full swing.

Any money doctor can tell you that once things have reached that point the government must move decisively, one way or the other: either make a clear commitment to defend the currency at all costs, or let it go. But governments usually have a hard time making either decision. Like many governments before and no doubt many to come, Thailand's waited as its reserves ran down; trying to convince markets that its position was stronger than it was, it made those reserves look larger through unannounced "currency swaps" (in effect, borrowing dollars now for repayment later). But though the pressure sometimes seemed to abate, it always resumed. By the beginning of July, it was clear that the game was up. On July 2, the Thais let the baht go.

Up to this point, nothing all that surprising had happened. The rundown of reserves, the speculative attack on an obviously weak currency, were right out of the textbooks. But despite the recent experience of the tequila crisis, most people thought that the devaluation of the baht would pretty much end the story: a humiliation for the government, perhaps a nasty shock for some overstretched businesses, but nothing catastrophic. Surely Thailand looked nothing like Mexico. Nobody could accuse it of having achieved "stabilization, reform, and no growth"; there was no Thai Cárdenas,

waiting in the wings to enforce a populist program. And so there would not be a devastating recession.

They were wrong.

Meltdown

There are two somewhat different questions to ask about the recession that spread across Asia in the wake of the Thai devaluation. The first is one of mechanics: How did this slump happen? Why should a devaluation in one small economy have provoked a collapse of investment and output across so wide an area? The other, in a way deeper, question is, Why didn't governments, or perhaps why couldn't governments, prevent the catastrophe? What happened to macroeconomic policy?

That second question will take some time to answer, at least partly because it is a matter of very sharp disagreement among reasonable people. So let's leave it until the next chapter, and simply try to describe what happened.

When all goes well, nothing terrible happens when a currency is allowed to drop in value. When Britain abandoned its defense of the pound in 1992, the currency dropped about 15 percent, then stabilized: investors figured that the worst was over, that the lower currency would help the country's exports, and that it was therefore a better place to invest than it had been before. Typical calculations suggested that the baht would have to fall something like 15 percent to make Thai industry cost-competitive again, so a decline of roughly that magnitude seemed likely. But instead, the currency went into free fall: the baht price of a dollar soared 50 percent over the next few months, and would have risen even further if Thailand had not sharply raised interest rates.

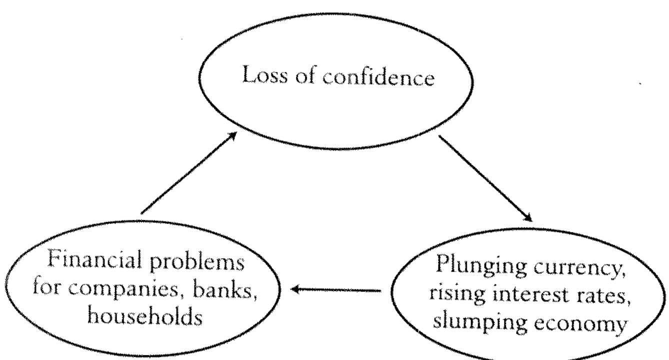
Why did the baht fall so far? The short answer is "panic"; but there are panics and there are panics. Which was it?

Sometimes a panic is just a panic: an irrational reaction on the part of investors that is not justified by the actual news. An example might be the brief plunge in the dollar in 1981, after a deranged gunman wounded Ronald Reagan. It was a shocking event; but even if Reagan had died, the stability of the U.S. government and the continuity of its policy could hardly have been affected. Those who kept their heads and did not flee the dollar were rewarded for their cool heads.

Much more important in economics, however, are panics that, whatever sets them off, validate themselves—because the panic itself makes panic justified. The classic example is a bank run: when all of a bank's depositors try to withdraw their money at once, the bank is forced to sell its assets at distress prices, causing it to go bankrupt; those depositors who did not panic end up worse off than those who did.

And indeed there *were* some bank runs in Thailand, and even more in Indonesia. But to focus only on these bank runs would be to take the metaphor too literally. What really happened was a circular process—a devastating feedback loop—of financial deterioration and declining confidence, of which conventional bank runs were only one aspect.

The figure on the next page illustrates this process, which occurred in some version in all of the afflicted Asian economies, schematically. Start anywhere in the circle—say, with a decline of confidence in Thailand's currency and economy. This decline in confidence would make investors, both domestic and foreign, want to pull their money out of the country. Other things being the same, this would cause the baht to plunge in value. Since the Thai



The Vicious Circle of Financial Crisis

central bank could no longer support the value of its currency by buying it on the foreign exchange market (because it no longer had dollars or yen to spend), the only way it could limit the currency's decline was to raise interest rates and pull baht out of circulation. Unfortunately, both the decline in the currency's value and the rise in interest rates created financial problems for businesses, both financial institutions and other companies. On one side, many of them had dollar debts, which suddenly became more burdensome as the number of baht per dollar increased; on the other, many of them also had baht debts, which became harder to service as interest rates soared. And the combination of higher interest rates and troubled balance sheets with a banking system that often found itself unable to make even the safest of loans meant that companies had to slash spending, causing a recession, which in turn meant still worse news for profits and balance sheets. All this bad news from the economy, inevitably, reduced confidence still further—and the economy went into a meltdown.

Leaving aside all the complicated details (which are still being picked over by researchers), this story seems fairly straightforward —especially because something quite similar happened in Mexico

in 1995. So why did the disastrous effects of Thailand's devaluation come as such a surprise? The basic answer is that while many economists were aware of the elements of this story—everyone understood that the feedback from confidence, to financial markets, to the real economy, and back again to confidence existed in principle—nobody realized just how powerful that feedback process would be in practice. And as a result nobody realized how explosive the circular logic of crisis could be.

Here's a parallel. A microphone in an auditorium always generates a feedback loop: sounds picked up by the microphone are amplified by the loudspeakers; the output from the speakers is itself picked up by the microphone; and so on. But as long as the room isn't too echoey and the gain isn't too high, this is a "damped" process and poses no problem. Turn the dial a little too far to the right, however, and the process becomes explosive: any little sound is picked up, amplified, picked up again, and suddenly there is an earsplitting screech. What matters, in other words, is not just the qualitative fact of feedback, but its quantitative strength. What caught everyone by surprise was the discovery that the dial was in fact turned up so high.

Indeed, even now there are many people who find it hard to believe that a market economy can really be that unstable, that the feedbacks illustrated in the figure can really be strong enough to create an explosive crisis. But they are—as we can see by looking at the way the crisis spread.

Contagion

There is probably a good reason why important meetings about international finance, especially about international crisis management, tend to take place in rustic resorts—why the postwar mon-

etary system was hammered out at the Mount Washington Hotel at Bretton Woods, why many of the world's finance ministers and central bankers gather each summer at Jackson Lake Lodge in Wyoming. Perhaps the setting helps important people get away from the firefighting of their daily lives and focus at least briefly on the larger issues. In any case, in early October 1997—when the Asian crisis was well underway, but its severity was not yet clear—a number of bankers, officials, and economists converged on Woodstock, Vermont, to take stock.

By then Thailand was already pretty clearly in deep trouble, the currency of its neighbor Malaysia had also been battered, and the Indonesian rupiah had depreciated about 30 percent. The general sense in the room was that Thailand had brought its woes on itself; and there was little sympathy for Malaysia, which like Thailand had been running huge current account deficits in the past several years, and whose prime minister had clearly made things worse with his denunciations of evil speculators. But everyone agreed that while Indonesia had been right to let its currency slide—indeed, many good things were said about Indonesia's economic management—the rupiah's weakness was not really justified. After all, Indonesia's current account deficits had been nowhere near as large relative to GDP as its neighbors'—at less than 4 percent of GDP, Indonesia's 1996 deficit was actually smaller than, say, Australia's. The country's export base—part raw materials, part labor-intensive manufacturing—looked solid; and in general the economy looked fundamentally sound.

Within three months Indonesia was in even worse shape than the rest of Southeast Asia, indeed on its way to one of the worst economic slumps in world history. And the crisis had spread not just across Southeast Asia but all the way to South Korea, a far-

away economy whose GDP was twice as large as that of Indonesia, three times as large as that of Thailand.

There are sometimes good reasons for economic contagion. An old line says that when the United States sneezes, Canada catches cold—no wonder, when much of Canada's production is sold in the markets of its giant southern neighbor. And there were some direct links among the afflicted Asian economies: Thailand is a market for Malaysian products and vice versa. A bit of extra traction may have been generated by the tendency of the Asian economies to sell similar products to third parties: when Thailand devalued its currency, the clothing it exports to the West got cheaper, and therefore cut into the profit margins of Indonesian producers of similar items.

But all estimates of this direct, "goods market" spillover among the crisis economies indicate that it just can't have been a major factor in the spread of the crisis. In particular, Thailand's role either as a market for or as a competitor of South Korea was little more than rounding error for the far larger Korean economy.

A more potent source of contagion may have been more or less direct financial linkage. Not that Thais were big investors in Korea, or Koreans in Thailand; but the flows of money into the region were often channeled through "emerging market funds" that lumped all the countries together. When bad news came in from Thailand, money flowed out of these funds, and hence out of all the countries in the region.

Even more important than this mechanical linkage, however, was the way that Asian economies were associated in the minds of investors. The appetite of investors for the region had been fed by the perception of a shared "Asian miracle." When one country's economy turned out not to be all that miraculous after all, it shook faith in all the others. The wise men at Woodstock may have

regarded Indonesia as quite different from Thailand, but the investor in the street was less sure and began to pull back just in case.

And it turned out that whatever the differences among all those economies, one thing they did have in common was susceptibility to self-validating panic. The wise men at Woodstock were wrong about Indonesia, and the panicky investors right; this was not because the wise men had misjudged Indonesia's virtues but because they had underestimated its vulnerability. In Malaysia, in Indonesia, in Korea, as in Thailand, the market's loss of confidence started a vicious circle of financial and economic collapse. It did not matter that these economies were only modestly linked in terms of physical flows of goods. They were linked in the minds of investors, who regarded the troubles of one Asian economy as bad news about the others; and when an economy is vulnerable to self-validating panic, believing makes it so.

Why Asia? Why 1997?

Why did Asia experience a terrible economic crisis, and why did it begin in 1997? As Bill Clinton might have put it, the answer depends on what you mean by "why." You might be asking about the specific precipitating events, or you might, more importantly, be asking about the source of Asia's extraordinary vulnerability.

If you insist on placing the blame for the onset of the Asian crisis on some specific event, there is a list of usual suspects. One is the exchange rate between the yen and the dollar: between 1995 and 1997 the yen, which had rather mysteriously gone to sky-high levels, fell back to earth. Since most Asian currencies were more or less pegged to the dollar, this made their exports look more expensive both in Japanese markets and in competition with Japanese products elsewhere, contributing to an export slowdown. China's

1994 devaluation, and more broadly growing competition from China's cheap labor, likewise cut into Thai and Malaysian exports. And there was a worldwide slump in the demand for electronics in general and semiconductors in particular, an area in which Asia's economies had tended to specialize.

But Asia had shrugged off much bigger shocks before. The 1985 crash in oil prices, for example, was a major blow to oil-exporting Indonesia; yet the economy grew right through the bad news. The 1990–91 recession, which was not very severe but affected much of the industrial world, reduced the demand for Asia's exports but did not slow the region's momentum at all. So the important question is, What had changed about Asia (or perhaps the world) such that *these* pieces of bad news triggered an economic avalanche?

Some of the Asians, notably Malaysia's Prime Minister Mahathir, had a ready answer: conspiracy. Mahathir, indeed, argued not only that the panic in Asia was deliberately engineered by big financial operators like George Soros but also that Soros himself was acting on instructions from the U.S. government, which wanted to cut assertive Asians down to size. As time passed, Mahathir's demonization of hedge funds started to look a bit less silly than it did when he first began his ranting. Indeed, the role of hedge funds now looks important enough to rate a whole chapter in this book (Chapter 6). But that role became important mainly in 1998 (by which time, incidentally, the activities of Soros and others were very much contrary to U.S. policy wishes); as a story about how the crisis began, conspiracy theory doesn't wash.

On the other side, many Westerners have turned the story of Asia's crash into a sort of morality play, in which the economies received their inevitable punishment for the sins of crony capitalism. After the catastrophe, everyone had a story about the excesses and corruption of the region—about those finance companies,

about Malaysia's grandiose plans for a "technology corridor," about the fortunes made by Suharto's family, about the bizarre diversification of Korean conglomerates (did you hear the one about the underwear company that bought a ski resort, and eventually had to sell it to Michael Jackson?). But this morality play is problematic on at least two counts.

First, while cronyism and corruption were very real in Asia, they were nothing new. Korea's *chaebol* were essentially family enterprises disguised as modern corporations whose owners had been accustomed to special treatment for decades—preferred access to credit, to import licenses, to government subsidies. And those were decades of spectacular economic growth. It was not a pretty system by Western standards but it functioned very well for thirty-five years. The same may be said, to a lesser extent, of all the countries caught up in the crisis. Why did their flaws become crucial only in 1997?

And a related point: if the crisis was a punishment for the sins of the Asian economies, why did economies that were by no means equally far down the path of development all hit the wall at the same time? Korea in 1997 was not far short of being a developed nation, with per capita income comparable to that of southern European countries, while Indonesia was still a very poor country where progress could be measured in terms of how many calories people managed to consume in a day. How is it that such an ill-matched pair could simultaneously be plunged into crisis?

The only answer that makes sense to me, at least, is that the crisis was *not* (mainly) a punishment for sins. There were real failings in these economies, but the main failing was a vulnerability to self-fulfilling panic.

Back to bank runs: In 1931, about half the banks in the United States failed. These banks were not all alike. Some were very badly

run; some took excessive risks, even given what they knew before 1929; others were reasonably well, even conservatively managed. But when panic spread across the land, and depositors everywhere wanted their money immediately, none of this mattered: only banks that had been extremely conservative, that had kept what in normal times would be an excessively large share of their deposits in cash, survived. Similarly, Thailand had a badly run economy; it had borrowed far too much and invested it in very dubious projects. Indonesia, for all its corruption, was much less culpable, and truly had the virtues those wise men imagined, but in the panic those distinctions did not matter.

Were the Asian economies more vulnerable to financial panic in 1997 than they had been, say, five or ten years before? Yes, surely—but not because of crony capitalism, or indeed what would usually be considered bad government policies. Rather, they had become more vulnerable partly because they had opened up their financial markets—because they had, in fact, become better free-market economies, not worse. And they had also grown vulnerable because they had taken advantage of their new popularity with international lenders to run up substantial debts to the outside world. These debts intensified the feedback from loss of confidence to financial collapse and back again, making the vicious circle of crisis more intense. It wasn't that the money was badly spent; some of it was, some of it wasn't. It was that the new debts, unlike the old ones, were in dollars—and that turned out to be the economies' undoing.

Epilogue: Argentina, 2002

Argentina isn't an Asian country. (Duh.) But Argentina had an Asian-style crisis in 2002, one that offered a painfully clear demon-

stration of how widely praised economic policies can lead a nation into disaster.

I discussed Argentina's monetary history in Chapter 2. After generations of irresponsible use and abuse of the printing press, in 1991 the Argentine government tried to put an end to all that by establishing a currency board that would supposedly provide a permanent link between the Argentine peso and the U.S. dollar. Every peso in circulation was supposed to be backed by a dollar in reserves, with no room for discretion. And this monetary stability, it was hoped, would ensure continued prosperity.

As we saw in Chapter 2, Argentina had a close brush with disaster in 1995, when the backwash from Mexico's crisis came close to bringing down the banking system. But as that crisis ebbed, confidence returned. Foreign observers continued to shower high praise on the Argentine economy and its managers, and foreign capital flowed in, much of it in the form of dollar loans to Argentine businesses and individuals.

In the late 1990s, it all started to go wrong.

At first, the problem was the rigidity of the exchange rate system, which set one peso equal to one U.S. dollar. This might not have been much of a problem if Argentina, like Mexico, did the great bulk of its trade with the United States. But look at a map: Argentina is no closer to the United States than it is to Europe, and in fact Argentina does more trade both with the European Union and with its neighbor Brazil than it does with the United States. And Argentina's currency system did *not* ensure stable exchange rates against either the euro or the *real*, Brazil's currency. On the contrary, the system actually tended to cause gratuitous fluctuations in these exchange rates, and hence in Argentina's trade position. If, for example, the dollar rose against the euro,

for whatever reason the effect was to price Argentine exports out of European markets.

And that's exactly what happened to Argentina starting in the late 1990s. On one side, the dollar soared against the euro—at one point the euro was worth only $0.85, compared with $1.26 at the time of writing. On the other, Brazil, caught in contagion from Russia's financial crisis (see Chapter 6), sharply devalued the *real*. The combined effect of these exchange rate shifts was to leave Argentina's exports seriously uncompetitive, pushing the country into a recession.

As Argentina's economy slumped, foreign investors lost faith. The flow of capital into the country went into reverse, creating a credit crunch. And as in 1995, the loss of foreign funds also caused a banking crisis.

Argentine officials tried desperately to contain the growing crisis. They slashed spending, deepening the recession, in the hope of regaining investor confidence abroad. They limited withdrawals from the banks, a measure that provoked angry demonstrations outside the presidential palace, with housewives banging pots and pans. Nothing seemed to work. And in late 2001 the government found itself unable to maintain the one-peso-one-dollar rule. The value of an Argentine peso quickly fell from one dollar to about thirty cents.

The initial results of the currency plunge were catastrophic, just like the currency plunges in Asia. Since many Argentine businesses and individuals had debts in dollars, the rise in the cost of a dollar in pesos had a crippling effect on balance sheets, in many cases leading to bankruptcy. The economy fell into a swoon: real GDP fell 11 percent in 2002, after falling 4 percent in 2001. Overall, the size of the Argentine economy declined 18 percent between 1998 and 2002, a Great Depression–scale contraction.

Over the next five years Argentina made a strong recovery, helped by a settlement in which the government paid only about thirty cents on the dollar of its foreign debt. (One of my favorite headlines ever, from a Reuters report on the debt negotiations, was "Argentina to Creditors: So Sue Us.") But the experience was terrifying. And as this book went to press, Argentina was in crisis again.

The Deeper Question

Most commentators on the Asian crisis would probably find some detail of the account in this chapter to quarrel with. Some would argue that the damage done by moral hazard–driven lending was greater than I suggest. Some would argue, on the contrary, that the economies were really in very good shape, and that the crisis was wholly gratuitous. The precise mechanism of crisis—the respective roles of bank failures, real estate prices, exchange rates, interest rates, and so on—will be the subject of much wrangling for years, perhaps decades to come. Nonetheless, in a general sense I believe that this account would receive broad acceptance.

The real controversy—the one that is heated and often personal, because those who criticize the way the crisis was handled are also criticizing those who handled it—concerns policy. Why weren't governments able to do more to limit the damage?

5

POLICY PERVERSITY

In December 1930, just as it started to become obvious that the United States was in no ordinary recession, John Maynard Keynes attempted to explain the causes of the slump to the general public. "We have magneto [alternator] trouble," he declared. It was, in a way, a radical statement, for he was declaring that the economic engine would not restart of its own accord, that it needed a jump start from the government. But in a deeper sense Keynes was being a conservative: he was declaring that the trouble with the engine was not fundamental, that it was amenable to a technical fix. At a time when many of the world's intellectuals were convinced that capitalism was a failed system, that only by moving to a centrally planned economy could the West emerge from the Great Depression, Keynes was saying that capitalism was *not* doomed, that a very limited sort of intervention—intervention that