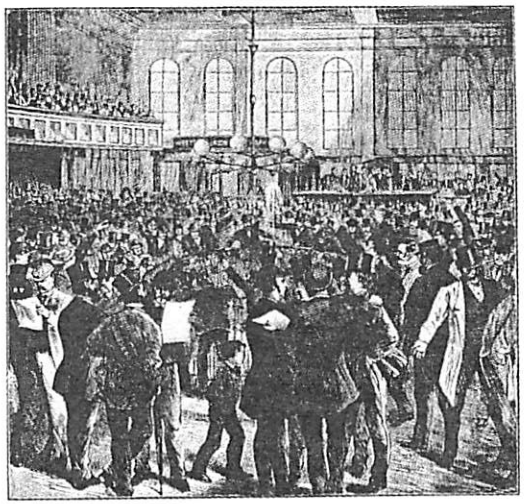
MANIAS, PANICS, AND CRASHES

A History of Financial Crises

CHARLES P. KINDLEBERGER



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Much has been written about panics and manias, much more than with the most outstretched intellect we are able to follow or conceive; but one thing is certain, that at particular times a great deal of stupid people have a great deal of stupid money. . . . At intervals, from causes which are not to the present purpose, the money of these people —the blind capital, as we call it, of the country—is particularly large and craving; it seeks for someone to devour it, and there is a "plethora"; it finds someone, and there is "speculation"; it is devoured, and there is "panic."

—Walter Bagehot
"Essay on Edward Gibbon"

CHAPTER 1

Financial Crisis: A Hardy Perennial

There is hardly a more conventional subject in economic literature than financial crises. If few books on the subject have appeared since World War II, following the spate of the 1930s, it is because the industry of producing them is anti-cyclical in character, and recessions from 1945 to 1973 were few, far between, and exceptionally mild. More recently, with the worldwide recession of 1974–75, the industry has picked up. This work thus reflects a revived interest in an old theme.

Financial crises are associated with the peaks of business cycles. We are not interested in the business cycle as such, the rhythm of economic expansion and contraction, but only in the financial crisis that is the culmination of a period of expansion and leads to downturn. If there be business cycles without financial crises, they lie outside our interest. On the other hand, financial crises that prove so manageable as to have no effects on the economic system will also be neglected. The financial crises we shall consider here are major both in size and in effect and, as a rule, international in scope.

The issues to be probed are several. Are markets so rational that manias—irrational by definition—cannot occur? If, on the other hand, such manias do occur, should they be allowed to run their course, without governmental or other authoritative interference? Or is there a salutary role to be played by a "lender of last resort," who comes to the rescue and provides the public good of stability that the private market is unable to produce for itself? And if the services of a lender of last resort are provided nationally, by government or by such official institutions as a central bank, what agency or agencies can furnish stability to the international system, for which no government exists?

The reader is owed an immediate confession. In an earlier work, *The World in Depression, 1929–1939*, I reached the conclusion that the 1929 depression was so wide, so deep, and so prolonged because there was no international lender of last resort.[1] Exhausted by the war and groggy from the aborted recovery of the 1920s, Great Britain was unable to act in that capacity and the United States was unwilling to do so. This interpretation of the Great Depression has not gone unchallenged.[2] The present work is nonetheless an attempt to extend the analysis in time and space, back to the beginning of the eighteenth century and to Western Europe.

Speculative excess, referred to concisely as a mania, and revulsion from such excess in the form of a crisis, crash, or panic can be shown to be, if not inevitable, at least historically common. And the role of the lender of last resort is fraught with ambiguity and dilemma. Commenting on the behavior of the Bank of England in the crisis of 1825, Thomas Joplin said, "There are times when rules and precedents cannot be broken; others, when they cannot be adhered to with safety."[3] Of course. But breaking the rule establishes a precedent and a new rule, which should be adhered to or broken as occasion demands. In these circumstances, intervention is an art, not

a science. General rules that the state should always intervene or that it should never intervene are both wrong, a fact abundantly demonstrated by contemporary questions of whether or not, or how, to rescue Lockheed, Penn Central, New York City, the Eastern bloc, and developing countries with their mountains of debt. This list of questions, moreover, suggests that the problem of financial crisis is still with us despite what the world has learned about economic stability from Keynes, so amply put into effect in the last thirty years.

This book, as already remarked, is not concerned with the business cycle, except insofar as failure to take action at the upper turning point may or may not prolong subsequent depression. Our concern is with speculative booms in the cycle and in the crises at the peak, and especially with their financial aspects. By no means is every upswing in business excessive, leading inevitably to mania and panic. But the pattern occurs sufficiently frequently and with sufficient uniformity to merit renewed study.

What happens, basically, is that some event changes the economic outlook. New opportunities for profits are seized, and overdone, in ways so closely resembling irrationality as to constitute a mania. Once the excessive character of the upswing is realized, the financial system experiences a sort of "distress," in the course of which the rush to reverse the expansion process may become so precipitous as to resemble panic. In the manic phase, people of wealth or credit switch out of money or borrow to buy real or illiquid financial assets. In panic, the reverse movement takes place, from real or financial assets to money, or repayment of debt, with a crash in the prices of commodities, houses, buildings, land, stocks, bonds—in short, in whatever has been the subject of the mania.

The monetary aspects of manias and panics are important, and we shall later examine them at some length. A monetarist view of the matter—that mania and panic would both be

avoided if only the supply of money were stabilized at some fixed quantity, or at a regular growing level—is rejected. While better monetary policies would moderate mania and panic in all cases, and doubtless eliminate some, I contend that even optimal policies would leave a residual problem of considerable dimensions. Even if there were exactly the right amount of liquidity in the system over the long run, there would still be crises, and need in crisis for additional liquidity to be provided by a lender of last resort. This view can be generalized to commodity markets. Markets generally work, but occasionally they break down. When they do, they require government intervention to provide the public good of stability.

This position is widely at variance with the views at either of two extremes: that financial and commodity markets work perfectly in all times and places, or that they always work badly and should be replaced by planning or governmental assignments. On the contrary, I contend that markets work well on the whole, and can normally be relied upon to decide the allocation of resources and, within limits, the distribution of income, but that occasionally markets will be overwhelmed and need help. The dilemma, of course, is that if markets know in advance that help is forthcoming under generous dispensations, they break down more frequently and function less effectively.

It may be well to fix the limits in time and place of the panics we shall consider. We start with the South Sea bubble in London and the Mississippi bubble in Paris in 1719 and 1720. (Manias such as the Lübeck crisis 100 years earlier, or the tulip mania of 1634, are too isolated and lack the characteristic monetary features that come with the spread of banking after the opening of the eighteenth century.) Although I say "we start with the South Sea bubble," there will be no chronological history of crises. Rather, we shall attempt an analytical treatment using materials from crises going back to 1719 and coming up mainly to 1929, but in a few cases up to

the recession of 1974–75.* In space, the major connected financial markets were Holland, Britain, Germany, and France in the eighteenth century; and Britain, Germany, France, and (beginning in 1819) the United States in the nineteenth century. Italy is of interest in connection with the crisis of 1866 and that of 1907, for which a particularly useful monograph exists.[4] For the rest, Italy plays only a modest role until after World War II.

Historical economics of a comparative sort relies on secondary sources, and cannot seek for primary material available only in archives. Accordingly, it follows the historical literature, which is most abundant for Britain and then for France, Germany, and the United States. The writer must confess, moreover, that his historical focus has been more on Europe than on the United States, at least for the period before World War I. To the extent that an abundance of work on a given country accurately reflects its importance in the international financial system, as it largely does, major attention to Britain is appropriate for the nineteenth century, if less so for the eighteenth, when Amsterdam matched or outstripped London in financial power. Inability to read Dutch has cut me off from most of at least one frequently cited monograph on the crisis of 1763,[5] but there is a considerable literature on Amsterdam in this period in more accessible languages, notably English.

This book is an essay in what is derogatively called today "literary economics," as opposed to mathematical economics,

* After 1720 there is a long gap until we come to the international crisis of 1763 at the end of the Seven Years War. A crisis and panic in London in 1745, when the Young Pretender landed in Scotland and advanced on England from the north until he was stopped at Carlisle, fall outside the interest of this work, since they were largely nonmonetary and were limited to a single market. A number of well-known financial crises, such as that following the City of Glasgow Bank failure in 1878 or the panic of 1893 in New York will be explored for particular aspects but are too parochial to merit intensive examination for present purposes.

econometrics, or (embracing them both) the "new economic history." A man does what he can, and in the more elegant—one is tempted to say "fancier"—techniques I am, as one who received his formation in the 1930s, untutored. A colleague has offered to provide a mathematical model to decorate the work. It might be useful to some readers, but not to me. Catastrophe mathematics, dealing with such events as falling off a height, is a new branch of the discipline, I am told, which has yet to demonstrate its rigor or usefulness. I had better wait. Econometricians among my friends tell me that rare events such as panics cannot be dealt with by the normal techniques of regression, but have to be introduced exogenously as "dummy variables." The real choice open to me was whether or not to follow relatively simple statistical procedures, with an abundance of charts and tables. In the event, I decided against it. For those who yearn for numbers, standard series on bank reserves, foreign trade, commodity prices, money supply, security prices, rate of interest, and the like are fairly readily available in the historical statistics. My thesis does not rest on small differences in quantities, however —or so I believe. It seemed to me to bog the argument down, as well as involve an inordinate amount of work, with greater costs than benefits. The result is an essentially qualitative, not quantitative, approach.

Chapter 2 provides the background to the analysis. It consists of a model of speculation, credit expansion, financial distress at the peak, and then crisis, ending in panic and crash. It is patterned after early classical ideas of overtrading, followed by revulsion and discredit, as expressed by Adam Smith, John Stuart Mill, Knut Wicksell, Irving Fisher, and others, but most recently by Hyman Minsky, a monetary theorist who holds that the financial system is unstable, fragile, and prone to crisis. It is not necessary to agree with him about the current monetary system of the United States to recognize that his model may have great explanatory power

for past crises in this country and especially in Western Europe.

The analysis itself, with copious historical illustration, begins with Chapter 3, which focuses on speculation, the mania phase of the subject. The central issue here is whether speculation can be destabilizing as well as stabilizing—whether, in other words, markets are always rational. The nature of the outside, exogenous shock which sets off the mania is examined in different historical settings: war, the end of war, a series of good harvests, a series of bad harvests, the opening of new markets, innovations, and the like. The objects of speculation are listed: commodity exports, commodity imports, agricultural land at home or abroad, urban building sites, new banks, discount houses, stocks, bonds (both foreign and domestic), glamour stocks, conglomerates, condominiums, shopping centers, office buildings. Moderate excesses burn themselves out without damage. A difficult question to answer is whether the euphoria of the upswing endangers financial stability only if it embraces two or more objects of speculation, a bad harvest, say, along with a railroad mania or an orgy of land speculation.

Chapter 4 deals with the monetary dimensions of both manias and panics. We shall note occasions when boom or panic has been set off by monetary events—a recoinage, a discovery of precious metals, a change in the ratio of the prices of gold and silver under bimetallism, and the like. More fundamentally, however, we shall stress the difficulty of getting the monetary mechanism right at any one time, and the impossibility of keeping it right. Money is a public good; as such, it lends itself to private exploitation. Banking, moreover, is notoriously difficult to regulate. Modern monetarists insist that much, perhaps most, of the cyclical difficulties of the past are the consequences of mistakes of understanding. That such mistakes were frequent and serious cannot be denied. The argument advanced in this chapter, however, is

that even when the supply of money was neatly adjusted to the demands of an economy, and mistakes were avoided, the monetary mechanism did not stay right very long. When government produces one quantity of the public good, money, the public will proceed to make more, just as lawyers find new loopholes in tax laws as fast as legislation closes up old ones. The evolution of money from coins to include bank notes, bills of exchange, bank deposits, finance paper, and on and on illustrates the point. The Currency School may be right about the necessity for a fixed supply of money, but it is wrong about the possibility of achieving it.

In Chapter 5 we consider swindles and defalcations. It happens that crashes and panics are often precipitated by the revelation of some misfeasance, malfeasance, or malversation (the corruption of officials) engendered during the mania. It seems clear from the historical record that swindles are a response to the greedy appetite for wealth stimulated by the boom. And as the monetary system gets stretched, institutions lose liquidity, and unsuccessful swindles are about to be revealed, the temptation becomes virtually irresistible to take the money and run. It is difficult to write on this subject without permitting the typewriter to drip with irony. An attempt will be made.

Chapter 6 describes the crisis stage, with the emphasis on domestic aspects. One question is whether manias can be halted by official warnings—moral suasion or jawboning. By and large, the evidence suggests that it cannot, or at least that many crises followed warnings that were intended to head them off. The nature of the turning point is discussed: some bankruptcy, defalcation, or troubled area revealed or rumored, a sharp rise in the central-bank discount rate to halt the hemorrhage of cash into domestic circulation or abroad. And then there is the interaction of falling prices—the crash—and its impact on the liquidity of the system.

In Chapter 7 we turn to the international propagation of manias and crises. Connections run through many linkages,

including trade, capital markets, flows of hot money, changes in central bank reserves of gold or foreign exchange, fluctuations in prices of commodities, securities, or national currencies, changes in interest rates, and direct contagion of speculators in euphoria or gloom. Some crises are local, others international. What constitutes the difference? Did, for example, the 1907 panic in New York precipitate the collapse of the Società Bancaria Italiana via pressure on Paris communicated to Turin by withdrawals? There is fundamental ambiguity here, too. Tight money in a given financial center can serve either to attract funds or to repel them, depending upon the expectations that a rise in interest rates generates. With inelastic expectations—no fear of crisis or of currency depreciation—an increase in the discount rate attracts funds from abroad, and helps provide the cash needed to ensure liquidity; with elastic expectations of change—of falling prices, bankruptcies, or exchange depreciation—raising the discount rate may suggest to foreigners the need to take more funds out rather than bring new funds in. The trouble is familiar in economic life generally. A rise in the price of a commodity may lead consumers to postpone purchases, awaiting the decline, or to speed them up against future increases. And even where expectations are inelastic, and the increased discount rate at the central bank sets in motion the right reactions, lags in responses may be so long that the crisis supervenes before the Marines arrive.

Crisis management at the domestic level is treated in Chapters 8 and 9. The first of these is devoted to no management on the one hand, and a host of miscellaneous devices on the other. No management is the remedy of those who think that the market is rational and can take care of itself; according to one formulation, it is healthy for the economy to go through the purgative fires of deflation and bankruptcy that get rid of the mistakes of the boom. Among the miscellaneous devices are holidays, bank holidays, the issuance of scrip, guarantees of liabilities, issuance of government debt, deposit insurance,

and the like. Chapter 9 addresses questions related to a lender of last resort—whether there should be one, who it should be, how it should operate—and the dilemmas posed for the system by the discharge of such a role. If the market is sure it will be saved by a lender of last resort, its self-reliance is weakened. On the other hand, one may choose to halt a panic for the sake of the system today, rather than worry about effects on incentives tomorrow. If there is a lender of last resort, however, whom should it save: insiders? outsiders and insiders? only the solvent, if illiquid? But solvency depends upon the extent and duration of the panic.

The penultimate chapter moves from the domestic scene, in which there is responsible government, to the international arena, where no agency or government has de jure responsibility for providing the public good of monetary stability.

A final chapter sums up the argument. In a word, our conclusion is that money supply should be fixed over the long run but be elastic during the short-run crisis. The lender of last resort should exist, but his presence should be doubted. For example, uncertainty about whether New York City would be helped, and by whom, may have proved just right in the long run, so long as help was finally provided, and so long as there was doubt right to the end as to whether it would be. This is a neat trick: always come to the rescue, in order to prevent needless deflation, but always leave it uncertain whether rescue will arrive in time or at all, so as to instill caution in other speculators, banks, cities, or countries. In Voltaire's *Candide*, the head of a general was cut off "to encourage the others." What I am urging is that some sleight of hand, some trick with mirrors be found to "encourage" the others (without, of course, cutting off actual heads) because monetarist fundamentalism has such unhappy consequences for the economic system.

Let me close this introduction with a word of caution. This book has few new themes. Insofar as it fits into an intellectual pattern, it is against revisionism. A considerable portion of

the economic writing of the last thirty years has been devoted to attacking old-fashioned modes of analysis that I happen to believe are valid. The monetarist school of Milton Friedman, for example, holds that there is virtually no destabilizing speculation, that markets are rational, that governments make mistake after mistake. I hope to suggest that such views, although not necessarily wrong, are too emphatic and leave too little room for exceptions. Both Keynesians and monetarists tend to disregard the macro-economic impact of price changes, on the ground that gains from price changes for producers or consumers are matched by losses to consumers or producers, with no net effect on the system except where there is money illusion, i.e., when a consumer or producer fails to see that his income has changed when prices change while nominal monetary aggregates remain unchanged. This disregard is often mistaken, in my judgment, as when the decline of prices leads to industrial, mercantile, and investor bankruptcy, financial disintermediation, bank failure, and spreading deflation before the benefits, if any, from lower prices have a chance to make themselves felt. The net effects of rising prices in today's world may be limited by offsetting gains and losses, without letting loose dynamic reactions. I would argue, however, that the pre-Keynesians were right in paying attention to price movements, now so cavalierly discarded. A study of manias, bubbles, crashes, panics, and the lender of last resort helps us to move from classical thesis through revisionist antithesis to a more balanced synthesis. Or so I claim.

CHAPTER 2

Anatomy of a Typical Crisis

History vs. Economics

For historians each event is unique. Economics, however, maintains that forces in society and nature behave in repetitive ways. History is particular; economics is general. In the chapters that follow, we shall set out various phases of speculative manias leading to crisis and collapse, with a wealth of historical explanation. In this chapter we are interested in the underlying economic model of a general financial crisis.

Note that we are not presenting here a model of the business cycle. The business cycle involves a full revolution of the economic wheel, while boom and bust deal only with that portion of the cycle covering the final upswing and the initial downturn. Nor are we concerned with the periodicity of both cycles and crises. Such a discussion would broaden the subject to different kinds of cycles: the Kitchin cycle of thirty-nine months, based on the rhythm of fluctuations in business inventories; the Juglar cycle of seven or eight years, related to

business investment in plant and equipment; the Kuznets cycle of twenty years, from population changes from generation to generation and the resultant rise and fall in the construction of housing; and possibly the more dubious and elusive Kondratieff cycle, set off by major inventions such as the railroad and the automobile.[1] Along with other observers, we note the spacing of crises ten years apart in the first half of the nineteenth century (1816, 1826, 1837, 1847, 1857, 1866) before the timing became more ragged. We make no attempt to explain this rhythm, beyond suggesting that some time must elapse after one speculative mania that ends in crisis before investors have sufficiently recovered from their losses and disillusionment to be willing to take a flyer again.

The Model

We start with the model of Hyman Minsky, a man with a reputation among monetary theorists for being particularly pessimistic, even lugubrious, in his emphasis on the fragility of the monetary system and its propensity to disaster.[2] Although Minsky is a monetary theorist rather than an economic historian, his model lends itself effectively to the interpretation of economic and financial history. Indeed, in its emphasis on the instability of the credit system, it is a lineal descendent of a model, set out with personal variations, by a host of classical economists including John Stuart Mill, Alfred Marshall, Knut Wicksell, and Irving Fisher.

According to Minsky, events leading up to a crisis start with a "displacement," some exogenous, outside shock to the macroeconomic system. The nature of this displacement varies from one speculative boom to another. It may be the outbreak or end of a war, a bumper harvest or crop failure, the widespread adoption of an invention with pervasive effects—

canals, railroads, the automobile—some political event or surprising financial success, or a debt conversion that precipitously lowers interest rates. But whatever the source of the displacement, if it is sufficiently large and pervasive, it will alter the economic outlook by changing profit opportunities in at least one important sector of the economy. Displacement brings opportunities for profit in some new or existing lines, and closes out others. As a result, business firms and individuals with savings or credit seek to take advantage of the former and retreat from the latter. If the new opportunities dominate those that lose, investment and production pick up. A boom is under way.

In Minsky's model, the boom is fed by an expansion of bank credit which enlarges the total money supply. Banks typically can expand money, whether by the issue of bank notes under earlier institutional arrangements, or by lending in the form of additions to bank deposits. Bank credit is, or at least has been, notoriously unstable, and the Minsky model rests squarely on that fact. This feature of the Minsky model is incorporated in what follows, but we go further. Before banks had evolved, and afterward, additional means of payment to fuel a speculative mania were available in the virtually infinitely expansible nature of personal credit. For a given banking system at a given time, monetary means of payment may be expanded not only within the existing system of banks, but also by the formation of new banks, the development of new credit instruments, and the expansion of personal credit outside of banks. Crucial questions of policy turn on how to control all these avenues of monetary expansion. But even if the instability of old and potential new banks were corrected, instability of personal credit would remain to provide means of payment to finance the boom, given a sufficiently thoroughgoing stimulus.

Let us assume, then, that the urge to speculate is present, and is transmuted into effective demand for goods or financial assets. After a time, increased demand presses against

the capacity to produce goods or the supply of existing financial assets. Prices increase, giving rise to new profit opportunities and attracting still further firms and investors. Positive feedback develops, as new investment leads to increases in income that stimulate further investment and further income increases. At this stage we may well get what Minsky calls "euphoria." Speculation for price increases is added to investment for production and sale. If this process builds up, the result is often, though not inevitably, what Adam Smith and his contemporaries called "overtrading."

Now overtrading is by no means a clear concept. It may involve pure speculation for a price rise, an overestimate of prospective returns, or excessive "gearing."[3] Pure speculation, of course, involves buying for resale rather than use in the case of commodities, or for resale rather than income in the case of financial assets. Overestimation of profits comes from euphoria, affects firms engaged in the productive and distributive processes, and requires no explanation. Excessive gearing arises from cash requirements which are low relative both to the prevailing price of a good or asset and to possible changes in its price. It means buying on margin, or by installments, under circumstances in which one can sell the asset and transfer with it the obligation to make future payments. As firms or households see others making profits from speculative purchases and resales, they tend to follow. When the number of firms and households indulging in these practices grows large, bringing in segments of the population that are normally aloof from such ventures, speculation for profit leads away from normal, rational behavior to what have been described as "manias" or "bubbles." The word "mania" emphasizes the irrationality; "bubble" foreshadows the bursting.

As we shall see in the next chapter, the object of speculation may vary widely from one mania or bubble to the next. It may involve primary products, especially those imported from afar (where the exact conditions of supply and demand

are not known in detail), or goods manufactured for export to distant markets, domestic and foreign securities of various kinds, contracts to buy or sell goods or securities, land in the country or city, houses, office buildings, shopping centers, condominiums, foreign exchange. At a late stage, speculation tends to detach itself from really valuable objects and turn to delusive ones. A larger and larger group of people seeks to become rich without a real understanding of the processes involved. Not surprisingly, swindlers and catchpenny schemes flourish.

Although Minsky's model is limited to a single country, overtrading has historically tended to spread from one country to another. The conduits are many. Commodity prices may rise, and so may the prices of securities that are traded internationally. Speculation in exports, imports, or foreign securities furnishes direct links between markets of countries. By these means euphoria and overtrading in one country can be fed by capital inflows from foreign purchases of particular goods or assets. And if these capital flows lead to inflows of gold or silver, monetary expansion in the original country is enhanced, as the boom is fueled by additional supplies of money on which higher pyramids of credit can be supported. In an ideal world, of course, a gain of specie for one country would be matched by a corresponding loss for another, and the resulting expansion in the first case would be offset by the contraction in the second. In the real world, however, while the boom in the first country might gain speed from the increase in the supply of reserves, or "high-powered money," it might also rise in the second despite the loss in monetary reserves, as investors respond to rising prices and profits abroad by joining in the speculative chase. In other words, the potential contraction from the shrinkage on the monetary side might be overwhelmed by the increase in speculative interest and the rise in demand. For the two countries together, in any event, the credit system is stretched tighter.

As the speculative boom continues, interest rates, velocity

of circulation, and prices all continue to mount. At some stage, a few insiders decide to take their profits and sell out. At the top of the market there is hesitation, as new recruits to speculation are balanced by insiders who withdraw. Prices begin to level off. There may then ensue an uneasy period of "financial distress." The term comes from corporate finance, where a firm is said to be in financial distress when it must contemplate the possibility, perhaps only a remote one, that it will not be able to meet its liabilities.[4] For an economy as a whole, the equivalent is the awareness on the part of a considerable segment of the speculating community that a rush for liquidity—to get out of other assets and into money—may develop, with disastrous consequences for the prices of goods and securities, and leaving some speculative borrowers unable to pay off their loans. As distress persists, speculators realize, gradually or suddenly, that the market cannot go higher. It is time to withdraw. The race out of real or long-term financial assets and into money turns into a stampede.

The specific signal that precipitates the crisis may be the failure of a bank or firm stretched too tight, the revelation of a swindle or defalcation by someone who sought to escape distress by dishonest means, or a fall in the price of the primary object of speculation as it, at first alone, is seen to be overpriced. In any case, the rush is on. Prices decline. Bankruptcies increase. Liquidation sometimes is orderly, but more frequently degenerates into panic as the realization spreads that there is only so much money, and not enough to enable everyone to sell out at the top. The word for this stage—again, not from Minsky—is "revulsion." Revulsion against commodities or securities leads banks to cease lending on the collateral of such assets. In the early nineteenth century this condition was known as "discredit." "Overtrading," "revulsion," "discredit"—all these terms have a musty, old-fashioned flavor. They are imprécise, but they do convey a graphic picture.

Revulsion and discredit may go so far as to lead to panic (or

as the Germans put it, *Torschlusspanik*, door-shut-panic), with people crowding to get through the door before it slams shut. The panic feeds on itself, as did the speculation, until one or more of three things happen: (1) prices fall so low that people are again tempted to move back into less liquid assets; (2) trade is cut off by setting limits on price declines, shutting down exchanges, or otherwise closing trading; or (3) a lender of last resort succeeds in convincing the market that money will be made available in sufficient volume to meet the demand for cash. Confidence may be restored even if a large volume of money is not issued against other assets; the mere knowledge that one can get money is frequently sufficient to eliminate the desire.

Whether or not there should be a lender of last resort is a matter of some debate. Those who oppose the function argue that it encourages speculation in the first place. Supporters worry more about the current crisis than about forestalling some future one. There is also a question of the place for an international lender of last resort. In domestic crises, government or the central bank (when there is one) has responsibility. At the international level, there is neither a world government nor any world bank adequately equipped to serve as a lender of last resort, although some would contend that the International Monetary Fund since Bretton Woods in 1944 is capable of discharging the role.

Dilemmas, debates, doubts, questions abound. We shall have more to say about these questions later on.

The Validity of the Model

The general validity of the Minsky model will be established in detail in the chapters that follow. At this stage we simply want to argue against two contrary positions. The first maintains either that each crises is unique, a product of a unique set of circumstances, or that there are such wide differences among economic crises as a class that they should be broken down into various species, each with its own particular features. The second position is that while the Minsky model may have been true of some earlier time, today things are different. This argument cites structural changes in the institutional underpinnings of the economy, including the rise of the corporation, the emergence of big labor unions and big government, modern banking, speedier communications, etc., etc. These changes, it is alleged, make a model of crises based on the instability of credit uninteresting except to antiquarians.

The issue cannot of course be resolved to the satisfaction of everyone. Truth is multidimensional, and on issues of this kind, differences of approach to truth can be justified on the basis of taste or depth of perception. The argument here is that the basic pattern of displacement, overtrading, monetary expansion, revulsion, and discredit, generalized in modern terms by the use of the Minsky model, describes the nature of capitalistic economies well enough to direct our attention to crucial problems of economic policy.

Take first the contrary view that each crisis is unique, a product of a series of historical accidents. This has been said about 1848 and about 1929,[5] and is implied by the series of historical accounts of separate crises referred to throughout the text below. There is much to support the view. Individual features of any one crisis will differ from those of another: the nature of the displacement, the object or objects of speculation, the form of credit expansion, the ingenuity of the swindlers, the nature of the incident that touches off revulsion. But if one may borrow a French phrase, the more something changes, the more it remains the same. Details proliferate; structure abides. Our interest in this chapter is structure; details engage us below.

More compelling is the suggestion that the genus "crises"

should be divided into species labeled commercial, industrial, monetary, banking, fiscal, financial (in the sense of financial markets), and so on, or into groups called local, regional, national, and international. Taxonomies along such lines abound. Although there is something to be said for such classification, we reject it for two reasons. In the first place, we are concerned primarily with international financial crises involving a number of critical elements—speculation, monetary expansion, a rise in the prices of assets followed by a sharp fall, and a rush into money. Crises that fall outside these dimensions do not, on the whole, concern us, and there are enough within the category to suggest that the broad genus is worthy of study. Second, this book is sufficiently occupied with general features; to penetrate to deeper levels would overburden the analysis by burying it in detail.

A more cogent attack on the model used here comes from the late Alvin Hansen, who claimed that something closely akin to it applied satisfactorily to the world economy prior to the middle of the nineteenth century but then underwent seachange:

> Theories based on uncertainty of the market, on speculation in commodities, on "overtrading," on the excesses of bank credit, on the psychology of traders and merchants, did indeed reasonably fit the early "mercantile" or commercial phase of modern capitalism. But as the nineteenth century wore on, captains of industry . . . became the main outlets for funds seeking a profitable return through savings and investments.[6]

In the book from which this quotation is drawn, Hansen was setting out to explain the business cycle. Before getting to the Keynesian analysis, of which he was the foremost expositor, he wanted to clear away earlier explanations. In my judgment, he was wrong—not about the rise of the modern corporation or the importance of savings and investment, but on the corollary that these required the dismissal of the earlier views on speculation in commodities and securities and on instability in credit and prices. It is understandable that

Hansen's attention was drawn to savings and investment and the forces that lay behind them, but ignoring uncertainty, speculation, and instability does not mean that they have disappeared.

The heart of this book is that the Keynesian theory is incomplete, and not merely because it ignores the money supply. Monetarism is incomplete, too. A synthesis of Keynesianism and monetarism, such as the Hansen-Hicks IS–LM curves that bring together the saving-investment (IS) and liquidity-money (LM) relationships, remains incomplete, even when it brings in production and prices (as does the most up-to-date macroeconomic analysis), if it leaves out the instability of expectations, speculation, and credit. The Keynesian and Friedmanite schools, along with most modern macroeconomic theories that synthesize them, are perhaps not so much wrong as incomplete. At the same time, the omissions under particular circumstances may be so critical as to make both Keynesianism and monetarism misleading.

The Model's Relevance Today

One place where the model surely applies today is foreign-exchange markets, in which prices rise and fall in wide swings, despite sizable intervention in the market by monetary authorities, and in which exchange speculation has brought large losses to some banks. Financial crisis has been avoided, but in the opinion of some observers, not by much.

Again, contemplate the enormous external debt of the developing countries, built up not only since the rise of oil prices but importantly—a widely ignored fact—in the several years before that time, as multinational banks swollen with dollars tumbled over one another in trying to uncover new foreign borrowers and practically forced money on the less-

developed countries (LDCs). Some of the chickens have already come home to roost, in defaults by Zaïre and Peru; others, such as Pertamina in Indonesia, have had close calls. In this area the world remains in "distress" as it contemplates uneasily the possibility of widespread default, euphemistically called "debt-rescheduling" and demanded by at least some LDCs, though the more important debtors have thought better of it.

The model also applies in part in the domestic sphere. The biggest economic problem, to be sure, is how to expand employment without inflation, and here the model helps no more than do pure Keynesianism or pure monetarism. But mere mention of Billie Sol Estes and Bert Lance is sufficient to indicate that speculation and expansive bankers are not relics of a distant past, and West Coast speculation in housing has raised prices to giddy heights from which sharp falls, speculator bankruptcies, and even bank failures are not impossible, though the problem is regionally limited. The real domestic concern is not over speculative upswings but over revulsion and discredit without the antecedent overtrading. A number of analysts darkly forecast persistent movements from stocks into bonds, from bonds into money, and even from money into goods.

Beyond insisting, however, that the model cannot be dismissed out of hand, as Hansen tried to do, I take no position on its present applicability to the domestic financial picture in the United States, as opposed to the international monetary sphere, where it clearly does apply. This is a work in history, not economic forecasting.

CHAPTER 3

Speculative Manias

Rationality of Markets

The word "mania" in the chapter title connotes a loss of touch with reality or rationality, even something close to mass hysteria or insanity. It is used continuously in economic history, which is replete with canal manias, railroad manias, joint stock company manias, land manias, and a host of others. Yet economic theory, along with social science generally, adopts the assumption that man and men are rational. How can the two views be reconciled?

At one level of discourse, "rational expectations" is a technical assumption used in econometric testing of models. Instead of assuming that tomorrow will be like today as today was like yesterday—simple lagging of variables—econometricians using "rational expectations" assume that markets will react to changes in variables in the way that economic theory would regard as rational, i.e., in conformity with standard economic models.

As a more general assumption, what does it mean to say that markets are rational?[1] Is it assumed that most markets behave rationally, or that all markets behave rationally most

of the time, or that all markets behave rationally all the time? Which formulation one adopts makes a difference. It is much easier to agree that most markets behave rationally most of the time than that all markets do so all the time. Frequently the argument seems to be between two polar positions, one which holds that no market is ever rational, the other that all markets are always so. In a meeting on the influence of expert networks, Harry G. Johnson offered this description of the difference between the "Bellagio group" of older economists, interested in international monetary reform, and a younger one from Chicago-Rochester-Manchester-Dauphine-Geneva:

> The difference can be encapsulated in the proposition that whereas the older generation of economists is inclined to say "the floating rate system does not work the way I expected, therefore the theory is wrong, the world is irrational and we can only regain rationality by returning to some fixed rate system to be achieved by cooperation among national governments," the younger generation is inclined to say "the floating rate system is a system that should be expected to operate rationally, like most markets; if it does not seem to work rationally by my standards, my understanding of how it ought to work is probably defective; and I must work harder at the theory of rational maximizing behavior and the empirical consequences of it if I am to achieve understanding." This latter approach is the one that is being disseminated, and intellectually enforced, through the [younger] network.[2]

Rationality is thus an a priori assumption rather than a description of the world.

There can be no doubt that rationality in markets in the long run is a useful hypothesis. It is a "pregnant" hypothesis, to use the terminology of Karl Popper, one which illuminates understanding. The world more or less acts as if men were rational in the long run, and we should analyze economic affairs as if the hypothesis holds.

Milton Friedman, however, has gone further. He has claimed that there can be no destabilizing speculation. A destabilizing speculator who bought as prices rose, and sold as they fell, would be buying high and selling low, thereby losing money.

In a Darwinian sense, therefore the destabilizing speculator would fail to survive, so there can be no destabilizing speculation.[3] Even a fellow monetarist like Harry Johnson claims this analysis makes him uneasy.[4] I submit that history and a more refined theory demonstrate it to be wrong.*

The a priori assumptions of rational markets and consequently the impossibility of destabilizing speculation are difficult to sustain with any extensive reading of economic history. The pages of history are strewn with language, admittedly imprecise and possibly hyperbolic, that allows no other interpretation than occasional irrational markets and destabilizing speculation. Here are some phrases culled from the literature: *manias . . . insane land speculation . . . blind passion . . . financial orgies . . . frenzies . . . feverish speculation . . . epidemic desire to become rich quick . . . wishful thinking . . . intoxicated investors . . . turning a blind eye . . . people without ears to hear or eyes to see . . . investors living in a fool's paradise . . . easy credibility . . . overconfidence . . . overspeculation . . . overtrading. . . .*

The firm of Overend, Gurney, which crashed on Black Friday in May 1866, was said to consist of "sapient nincompoops."[6] "These losses," said Bagehot, "were made in a manner so reckless and so foolish that one would think a child

* On one occasion, Friedman moved to a different position, saying, "Destabilization speculation is a theoretical possibility, but I know of no empirical evidence that it has occurred even as a special case, let alone as a general rule."[5] In commenting to me privately on this statement, William Poole observed that Friedman might have had in mind some definition of destabilizing speculation that limited it to those positions taken in a market that were evidently irrational in light of the information available to the speculator at the time. Friedman has told me that this was not his definition. Poole's interpretation serves nonetheless to illustrate the connection between rationality of markets and destabilizing speculation. Rational markets are always (mostly?) governed by stabilizing speculation, which takes available information as it comes along and calculates an appropriate set of prices. If markets were sometimes irrational in the short run, prices might move excessively up or down relative to long-run values, even occasionally producing dynamic changes that would not have occurred in completely rational markets.

who had lent money in the City of London would have lent it better."[7]

Clapham's description of the Baring firm in 1890 is understated in characteristic British fashion: "They had not considered these enterprises or the expected investors in them coolly or wisely enough [but had] gone far beyond the limits of prudence."[8]

Or consider the rich language of Adam Smith on the South Sea bubble: "They had an immense capital dividend among an immense number of proprietors. It was naturally to be expected, therefore, that folly, negligence, and profusion should prevail in the whole management of their affairs. The knavery and extravagance of their stock-jobbing operations are sufficiently known [as are] the negligence, profusion and malversation of the servants of the company."[9]

Rationality of the Individual, Irrationality of the Market

Manias and panics, I contend, are associated on occasion with general irrationality or mob psychology. Often, the relationship between rational individuals and the irrational whole is more complex. After (1) mob psychology, we can distinguish a series of related cases: (2) people will change at different stages of a continuing process, starting rationally, and, gradually at first, then more quickly losing contact with reality; (3) rationality will differ among different groups of traders, investors, or speculators, including those at the earlier stages and those at the later; (4) all will succumb to the fallacy of composition, which asserts that from time to time the whole is other than the sum of its parts; (5) there will be failure of a market with rational expectations as to the *quality* of a reaction to a given stimulus to estimate the right *quantity*,

especially when there are lags between stimulus and reaction; (6) irrationality may exist insofar as economic actors choose the wrong model, fail to take account of a particular and crucial bit of information, or go so far as to suppress information that does not conform to the model implicitly adopted. The irrationality of the gullible and greedy in succumbing to swindlers and defalcators we leave to a later chapter.

Mob psychology or hysteria is well established as an occasional deviation from rational behavior. We have its elements in many economic models: the demonstration effect, which leads developing countries to adopt consumption standards beyond their capacity to produce for themselves; keeping up with the Joneses in consumption; refusing, when income declines, to cut consumption symmetrically with the increase in consumption that occurred when income rose (the Duesenberry effect). In politics, it is known as the bandwagon effect, when people back winners, or as "rats deserting the sinking ship," when they turn from losers—though if the ship is really sinking, it is rational for the rat to leave. The subject is discussed generally by the French historian Gustave LeBon in *The Crowd*[10] and has been applied to the South Sea bubble by Charles McKay in his *Memoirs of Extraordinary Delusions and the Madness of Crowds*.[11] For a neat example, take the case of Martin, the banker who subscribed to £500 worth of South Sea stock in the third subscription list of August 1720, saying "When the rest of the world are mad, we must imitate them in some measure."[12]

The modern proponent of irrationality in this sense is Hyman Minsky, who emphasizes a mild form in his discussion of "euphoria" in markets. In an earlier day, such waves of excessive optimism (perhaps followed by excessive pessimism) might have been tied to sunspots or the path through the heavens of Venus or Mars. In Minsky's formulation they start with a "displacement," some structural characteristics of the system, and human error. Some event increases confidence. Optimism sets in. Confident expectations of a steady stream

of prosperity, and of gross profits, make portfolio plunging more appealing. Financial institutions accept liability structures that decrease liquidity, and that in a more sober climate they would have rejected. The rise is under way, and may feed on itself until it constitutes a mania.

The alternative explanation of the unsober upswing goes back to Irving Fisher, his colleague Harry Gunnison Brown, and ultimately to Knut Wicksell, and emphasizes that the real rate of interest was too low.[13] Prices rise on the upswing, while interest rates lag. This implies a fall in the real rate of interest. Lenders have money illusion, i.e., they ignore the price rise and are content with the nominal rate of interest. Borrowers do not have money illusion, i.e., they recognize that the real rate of interest has fallen. With real interest rates falling, and profit prospects either rising or steady, rational investors expand. The picture is not persuasive. It is doubtful that one group of financial actors will have money illusion and another not. Moreover, euphoria is seldom general but usually focuses on one or two objects of speculation, implied by the displacement.

Speculation often develops in two stages. In the first, sober stage of investment, households, firms, investors, or other actors respond to a displacement in a limited and rational way; in the second, capital gains play a dominating role. "The first taste is for high interest, but that taste soon becomes secondary. There is a second appetite for large gains to be made by selling the principal."[14] In the United States, land was initially bought in the 1830s for extending the cultivation of high-priced cotton, and thereafter for resale. In the 1850s, according to Van Vleck, farmers and planters both "consumed" land and speculated in it. In ordinary times they bought more land than they cultivated, as a hedge against the declining value of the acres they planted; in boom, this more or less sound basis was discarded, and farms were heavily mortgaged to buy land, which in turn was mortgaged to buy still more so as to benefit from speculative price rises.[15]

The 1830s railway boom in Britain also had two stages: a first, prior to 1835, when the projects were not bubbles, and a second, after 1835, when they were. In the first phase, shares were sold by promoters to local chambers of commerce, Quaker capitalists, and hard-headed Lancashire businessmen, both merchants and industrialists—that is, to men of substance expecting to benefit from the building of the railroad and known to be in a position to meet not only the initial 5 to 10 percent payment but any subsequent calls for payment as the work progressed. In the second phase, professional company promoters—many of them rogues interested only in quick profits—tempted a different class of investors, including ladies and clergymen.[16]* The same stages are observed in the

* The ladies and clergymen—in American parlance, "widows and orphans"—may more properly belong to a third stage when the securities have become seasoned in the market. The French call such investments suitable for "the father of a family." Charles Wilson in *Anglo-Dutch Commerce and Finance in the Eighteenth Century* (Cambridge: Cambridge University Press, 1941) produces a number of variations on investor groups in the Netherlands:

> "spinsters, widows, retired naval and army officers, magistrates, retired merchants, parsons and orphanages" (p. 118); "hundreds of other merchants . . . as well as thousands of civil servants, magistrates, widows and orphans and charitable institutions" (p. 135); "widows, parsons, orphanages, magistrates and civil servants" (p. 162); "country gentry, wealthy burghers and officials of Amsterdam, widows and wealthy spinsters" (p. 181); "spinsters, theologians, admirals, civil servants, merchants, professional speculators, and the inevitable widows and orphans" (p. 202).

In the quotation from Bagehot that constitutes the epigraph of this book, the owners of the blind capital who lacked the wisdom to invest it properly were characterized in the excised portion as "quiet ladies, rural clergymen and country misers" and again as "rectors, authors, grandmothers." See Bagehot, "Essays on Edward Gibbon," quoted in Theodore E. Burton, *Financial Crises and Periods of Industrial and Commercial Depression* (New York: Appleton, 1902), pp. 321–2. Today's class of unskilled investors includes especially doctors.

The opening shot in Bismarck's financial war against Russia in 1887 that culminated in the November *Lombardverbot*, forbidding the acceptance by the Reichsbank of Russian securities as collateral for loans, was an instruction to the Orphan Courts to discriminate against Russian securities in the portfolios of their wards (*Allgemeine Zeitung*, July 28, 1887).

early 1870s for building sites in Vienna, initially bought for construction, later as speculative poker chips for profitable resale.[17] Or follow Ilse Mintz' two-stage process in foreign bonds marketed in New York: sound prior to 1924 and the Dawes loan (which touched off the boom) and inferior thereafter.[18] Today there is a market in just-built and unfinished houses in southern California, sold from one person to another at rising prices with the help of a lively push in second mortgages.

The fact of two stages raises the question of two groups of speculators, the insiders and the outsiders. These have served as some economists' answer to Friedman's a priori demonstration that destabilizing is impossible.[19] The insiders destabilize by driving the price up and up, selling out at the top to the outsiders, who buy at the top, and sell out at the bottom when the insiders are driving the market down. The losses of the outsiders are equal to the gains of the insiders, and the market as a whole is a standoff. In a technical article, Johnson has pointed out that for every destabilizing speculator there must be a stabilizing one, and vice versa.[20] But the professional insiders initially destabilize by exaggerating the upswings and the falls, while the outsider amateurs who buy high and sell low are less price manipulators than the victims of euphoria, which infects them late in the day. When they lose, they go back to their normal occupations to save up for another splurge.

A recent paper by Larry Wimmer on the Gold Panic of 1869 in the United States purports to demonstrate that there was no destabilizing speculation. The paper is helpful in correcting a host of misconceptions about the episode, particularly among general historians, but he and I have agreed that the evidence is consistent with a hypothesis that Gould and Fisk destabilized on balance by first driving the price up and then, having converted the outside speculators from stabilizers to destabilizers, selling out at the top (at least Gould did).[21] The information available to the two groups differed. In the

early stage, Gould was trying to persuade the government of the desirability of forcibly depreciating the dollar by driving up the agio (premium) on gold in order to raise grain prices, while the outsider speculators were still operating on the expectation derived from past performance that the government's policy was to drive the agio down and resume convertibility of greenbacks into gold. On September 16, the outsiders abandoned this expectation and adopted Gould's, buying heavily and driving the gold price up. On September 22, on the other hand, Gould learned from his associate, President Grant's brother-in-law, that the outsiders had originally been right, and that his plan was not going to be adopted. He sold. Belatedly the outsiders saw they were wrong. The result was the Black Friday of September 24, 1869, one of three Black Fridays which take their place alongside Black Tuesday and Black Thursday of 1929.

Another case involving two sets of speculators, insiders and outsiders, is the "bucket shop." This term has practically disappeared from the language since the Securities and Exchange Commission stamped it out after 1933 as an illegal practice. Nor is it discussed in the economic literature known to me.* To learn about bucket shops, one has to turn to novels, from which in truth one can learn a great deal of historical detail about manias, panics, swindles, and financial aberrations generally. A classic picture of a bucket shop is given in Christina Stead's excellent *House of All Nations*.[22] In a bucket shop, insiders take orders from the outsider public to buy and sell securities, but do not execute them, assuming what is usually the case, that the outsider's bet will prove to have been wrong. And the bucket shop has the advantage of a hedge:

* There is a useful discussion of bucket shops, with their "boiler rooms" (sales area) set aside for "dynamiters" (salesmen), in Watson Washburn and Edmund S. DeLong, *High and Low Financiers: Some Notorious Swindlers and Their Abuses of our Modern Stock Selling System*, (Indianapolis: Bobbs-Merrill, 1932). Washburn and DeLong were lawyers in the state attorney-general's office in New York in the 1920s.

if the outsider should turn out to be a stabilizing speculator and right—buying low and selling high—the bucket-shop operator turns swindler and decamps. In *House of All Nations*, Jules Bertillon in 1934 fled to Latvia; today the destination would be Brazil or Costa Rica.

For a further example of an outside destabilizing speculator who bought high and sold low, there is the edifying history of a great Master of the Mint, Isaac Newton, a scientist and presumably rational. In the spring of 1720, he stated: "I can calculate the motions of the heavenly bodies, but not the madness of people." On April 20, accordingly, he sold out his shares in the South Sea Company at a solid 100 percent profit of £7,000. Unhappily, a further impulse later seized him, an infection from the mania gripping the world that spring and summer. He reentered the market at the top for a larger amount, and ended up losing £20,000. In the irrational habit of many of us who experience disaster, he put it out of his mind, and never, for the rest of his life, could he bear to hear the name South Sea.[23]

Yet euphoric speculation, with stages or with insiders and outsiders, may also lead to manias and panics when the behavior of every participant seems rational in itself. This is the fallacy of composition, in which the whole differs from the sum of its parts. The action of each individual is rational—or would be, were it not for the fact that others are behaving in the same way. If a man is quick enough to get in and out ahead of the others, he may do well, as insiders do, even though the totality does badly. On the South Sea bubble, Carswell quotes a rational participant:

> The additional rise above the true capital will only be imaginary; one added to one, by any stretch of vulgar arithmetic will never make three and a half, consequently all fictitious value must be a loss to some person or other first or last. The only way to prevent it to oneself must be to sell out betimes, and so let the Devil take the hindmost.[24]

"Devil take the hindmost," *sauve qui peut*, and the like are recipes for a panic. The analogy of fire in a theater comes to mind.* Or try the chain letter, which presumably I do not need to describe: not everyone can get out in time unless the chain expands infinitely. It is rational to participate so long as one knows one is in on the early stages of the chain, and believes all others will think they are, too. The Ponzi scheme, discussed in Chapter 5, was a sort of chain letter in which the 50 percent profit in forty-five days guaranteed to purchasers of his notes in Boston in 1920 was paid to the early buyers, most of whom regrettably put their earnings back in for pyramiding, out of money paid by late buyers. When the late buyers suspected they might not get their money back, the system collapsed. There is never enough money for all because the swindlers—the organizers of the South Sea Company, Ponzi, and the smart ones who get out early—have taken it, and the inflow of new money must ultimately dry up.

Closely akin to the fallacy of composition is the standard "cobweb" demonstration in elementary economics, in which demand and supply are linked not simultaneously, as in an auction that clears the market at each moment of time, but with a lag. "Displacement" consists of events which change the situation, extend the horizon, and alter expectations. In such cases, otherwise rational expectations fail to take into account the strength of similar responses by others. Too many young people respond to the demand for physicists, mathematicians, schoolteachers, or whatever. But this fact is revealed only when, after a delay, the supply comes on the

* In the economic literature the only reference to theaters I find, unless it be implied in *Torschlusspanik*, is Clapham on the money-market panic of December 1, 1825, when there was a rush "like that for the pit of a theatre on the night of a popular performance," a positive instead of a negative simile (Sir John Clapham, *The Bank of England: A History* [Cambridge: Cambridge University Press, 1945], vol. 2, p. 98.).

market and job opportunities are scarce instead of abundant. Response to a shortage of coffee, sugar, cotton, or some other commodity may be similarly excessive: the price goes way up and then comes way down.

The history of manias and panics is replete with examples of destabilizing "cobweb" responses to exogenous shocks. When Brazil opened up as a market in 1808 after the Portuguese royal family fled there during Wellington's campaign in the peninsula, more Manchester goods were sent to the market in a few weeks than had been consumed there in twenty years, including the ice skates and warming pans that, as Clapham noted, proved to be the accepted illustration of commercial madness among nineteenth-century economists.[25*] In the 1820s, independence for the Spanish colonies initiated an excessive boom in lending to new Latin American governments, investing in mining shares, and exporting to the area. "The demand is sudden, and as suddenly stops. But too many have acted as if it were likely to continue."[26]

In the 1830s, says Matthews, there was a cobweb fluctuation of two-year periodicity. "Each merchant would be ignorant of the amount other merchants would be bringing forward by the time his own merchandise was on the market."[27] The same was true in the United States in the 1850s, following the discovery of gold in California:

> The extraordinary and undue expectations entertained not only in the United States but in this country [Britain] as to the capability of California—after the 1849 gold discovery—unquestionably aided in multiplying and extending the disaster consequent on the American crisis. When it was again and again stated, both in London and in Boston, in regard to all shipments to San Francisco, that six, or at most eight, moderately-sized or assorted cargos per month were all that were required or could be consumed; instead of that eastern shippers dispatch twelve to fifteen first-class ships a month, fully laden.[28]

A rather farfetched line of reasoning led from phylloxera, which ruined many vineyards and set back wine production in France, to the 1880s boom in brewery shares in Britain, as one after another private brewery went public in the public-companies mania. Among them, Arthur Guinness and Co. was bought for £1.7 million and sold for £3.2 million.[29]

Nearer to the present was the boom in Britain at the end of World War I, when businessmen thought victory would ensure the elimination of German competition in coal, steel, shipping, and even cotton textiles. Prices of industrial assets, ships, equities, even houses increased. Companies were merged and took on heavy loads of debt. Then from the summer of 1920 to the coal strike of the second quarter of 1921, sober realization grimly set in.[30]

On the borderline of rationality are three more cases. The first deals with target workers, so to speak—people who get used to a certain income and find it difficult to adjust downward when rationality calls for it. In consumption theory, this is the Duesenberry effect already referred to. In labor supply, it constitutes the "backward-bending supply curve," which suggests that higher wages or salaries produce not more work but less, and that the way to increase effort is to lower the

* Hyndman, a socialist, sarcastically ascribes this example to the 1820s: "The most ridiculous blunders were made by the class which was supposed to be carrying on business for the general benefit. Warming-pans were shipped to cities within the tropics, and Sheffield carefully provided skaters with the means of enjoying their favorite pastime where ice had never been seen. The best glass and porcelain were thoughtfully provided for naked savages, who had hitherto found horns and cocoa-nut shells quite hollow enough to hold all the drink they wanted." (See H. M. Hyndman, *Commercial Crises of the Nineteenth Century* [1892; 2nd ed. (1932), reprinted, New York; Augustus M. Kelley, 1967], p. 39). Clapham is right and Hyndman wrong. The source for both is J. R. McCullough, *Principles of Political Economy*, 2nd ed. (Edinburgh, 1830), which refers to 1810, not 1825.

The announcement of the formation of the South Sea Company in May 1711 produced expectations of a strong demand for British goods in Latin America that would provide "a triumphant solution to the [British] financial problem and need for expansion for the support of our way of life." Booming markets were anticipated in "Colchester bays, silk handkerchiefs, worsted hose, sealing wax, spices, clocks and watches, Cheshire cheese, pickles, scales and weights for gold and silver." (See John Carswell, *The South Sea Bubble* [London: Cresset Press, 1960], p. 55.)

return per unit time. In economic history books, this principle is known as "John Bull can stand many things but he cannot stand 2 percent." John Stuart Mill put it thus:

> Such vicissitudes, beginning with irrational speculation and ending with a commercial crisis, have not hitherto become less frequent or less violent with the growth of capital and the extension of industry. Rather they may be said to have become more so: in consequence, it is often said, of increased competition; but, as I prefer to say, of a low rate of profit and interest, which makes the capitalists dissatisfied with the ordinary course of safe mercantile gains.[31]

In France at the end of the Restoration and the beginning of the July monarchy, i.e., between 1826 and 1832, speculation was rife despite the "distrust that the French always feel toward ill-gotten money." Landowners earned 2.25 to 3.75 percent on their assets; industrialists tried to do better than the long-run interest rate on their fixed investment by 2 to 4 percent, i.e., to earn 7 to 9 percent overall. Merchants and speculators in raw materials sought to realize 20 to 25 percent on the money they had engaged for several years when they succeeded in mounting an operation.[32] Earlier, notes Charles Wilson, the Dutch were converted from merchants into bankers (accused of idleness and greed), and developed habits of speculation, because of the decline in the rate of interest in Amsterdam to 2.5 and 3 percent.[33] Large-scale conversions of public debt in 1822 and 1824, and again in 1888, were associated with a decline in the rate of interest and stimulated appetites of investors for foreign securities.[34] As Andréadès observed of England, "When interest goes down, the English commercial world, unable to reduce its mode of life, deserts its usual business in favour of the more profitable, but on that very account more risky undertakings . . . speculation leads to disaster and ultimately must be borne by the central bank."[35]

The second borderline case involves hanging on in the hope of some improvement, or failing to take a specific type

of action when changes in circumstances occur. On the first score, note the failures of the New York Warehouse and Security Company, of Kenyon, Cox & Co., and of Jay Cooke and Co. on September 8, 13, and 18, 1873, because of advances made to railroads (respectively, the Missouri, Kansas and Texas, Canada Southern, and Northern Pacific) with which they were associated, when because of the tight condition of the bond market those railroads were unable to sell bonds for funds needed to complete construction already under way.[36] Similarly, when long-term lending to Germany stopped in 1928, as financial preoccupation in New York turned from bonds to the stock market, New York banks and investment houses kept on lending at short term. When riding a tiger, or holding a bear by the tail, it seems rational—but may not be—to hang on. The model is apposite today, as the world banking community contemplates its large volume of loans to developing countries and to the Socialist bloc.

For an error of omission, note the plight of Hamburg banks which opened large credits during the Crimean War in favor of Swedish houses engaged in smuggling goods into Russia, but neglected to cancel them when peace came. The Swedes used the credits to speculate in shipbuilding, factories, and mining, which helped embroil Hamburg in the world crisis of 1857.[37]

The third borderline case is to have a rational model in mind, but the wrong one. The most famous example in another field is the French "Maginot Line psychology," though this may be thought of less as a case of irrational expectations than one of undistributed lag. " 'When a man's vision is fixed on one thing,' thought Ponzi, 'he might as well be blind.' "[38] In the 1760s, Hamburg merchants were not hurt by the fall in commodity prices until the end of the Seven Years War. Thus, in 1799, when the Napoleonic Wars were continuing, they were unprepared for the decline in prices which came with penetration of the blockade of Napoleon's 1798 Continental system.[39] Or take the French bankers and industrialists who

formed the copper ring in 1888, patterned after the cartel movement in iron and steel, steel rails, coal, and sugar in the early part of the decade, bemused as they were by the successes of the diamond syndicate in South Africa and of the Rothschilds' mercury monopoly in Spain. (One notes today economists who extrapolate from the triumph of the Organization of Petroleum Exporting Countries, or OPEC, to assume successful price fixing at higher levels in practically every other raw material and foodstuff.) By 1890 the French syndicate held 160,000 tons of high-priced copper, plus contracts to buy more, with old mines being reworked, scrap processing being initiated everywhere, and the price sinking like a stone. From £80 a ton at the top to £38, the collapse almost took with it in 1889 the Comptoir d'Escompte, which was saved by an advance of 140 million francs from the Bank of France, reluctantly guaranteed by the Paris banks.[40]

For the purely irrational cases, two examples may suffice: a society pinning its hopes on some outstanding event of no possible relevance to the situation, on the one hand; and a society ignoring evidence it would prefer not to think about, on the other. As an instance of the first consider the faith placed in the World Exhibition that opened in Vienna on May 1, 1873. Already by the first of the year, says Wirth, the liquid assets of enterprises were widely exceeded by their liquid liabilities, producing acute "distress": credit at banks was stretched to the limit, a move from commodities, land, shares, and debt back into money was under way, the chain of accommodation bills was extended as far as it would go. Nonetheless, the system hung on, waiting for the opening of the exhibition which, it was thought (or at least hoped), would like a *deus ex machina* save the situation by some unknown means. When the opening of the exhibition produced no change, the market collapsed on May 5 and 6.[41]

As an illustration of repression of contradictory evidence, consider J. W. Beyen's analysis of the German failure to restrict short-term borrowing from abroad at the end of the

1920s. He suggested that the dangers were not faced, even by Schacht, and added: "It would not have been the first nor the last time . . . that consciousness was being 'repressed.' "[42]

On this showing, I conclude that despite the general usefulness of the assumption of rationality, markets can on occasions—infrequent occasions, let me emphasize—act in destabilizing ways that are irrational overall, even when each participant in the market is acting rationally. It behooves us now to turn to displacements, to the objects of speculation, and to national differences, if any, in the propensity to speculate. On the first two issues the historical illustrations offer considerable material.

Displacements

Displacement is some outside event that changes horizons, expectations, profit opportunities, behavior—"some sudden advice many times unexpected."* The event must be of significant size. Each day's events produce some changes in outlook, but few significant enough to qualify as displacements.

In the first place comes war. In some systems, perhaps including the Marxian, war may be regarded as an endogenous product of the politico-economic system, say, of nationalist capitalism. The question lies outside our interest. Wars are

* The full quotation is from Gerard Malynes, writing in 1686: "And this bargaining is most proper for such and the like commodities, the price whereof doth quickly rise and fall, and are also commodious when a man's money is not so ready to buy much, and to make a great employment with little money, which happeneth upon some sudden advice many times unexpected, whereupon men are very hot to buy or sell; which is much used in buying of Herring before they are catched, by 'stellegelt,' as they call it, that is by a summe of money agreed upon to be paid, if the partie doth repent himselfe of the bargaine. . . ." The passage is quoted by Violet Barbour, *Capitalism in Amsterdam in the 18th Century* (Ann Arbor: University of Michigan Press, 1963), p. 74.

assumed to be external to the system, whether or not, at some level of abstraction, they actually are.

Some crises occur immediately at the beginning or end of a war, or soon enough after the end to permit a few expectations to be falsified. For beginnings, the most notable is the crisis of August 1914. At the end, there are the crises of 1713, 1763, 1783, 1816, 1857, 1864, 1873, and 1920. Moreover, seven to ten years after a war, long enough for expectations formed at the end of the original crisis to be falsified, come an impressive series of crises: 1720, 1772, 1825, 1873 in the United States (if it be connected to the Civil War), and of course 1929.

Far-reaching political changes may also act to jar the system and displace expectations. The Glorious Revolution of 1688, for example, gave rise to a boom in company promotion: by 1695 there were 140 joint-stock companies with a total capital of £4.5 million, of which fewer than one-fifth had been founded before 1688. By 1717 total capitalization had reached £21 million.[43] In July 1720 the Bubble Act forbade formation of further joint-stock companies without explicit approval of Parliament, a limitation that lasted until 1856. This has normally been interpreted as a reaction against the South Sea Company speculation. Carswell, however, makes clear that it was undertaken in support of the South Sea Company, as king and Parliament sought to repress rival bubbles that might divert capital subscriptions in cash intensely needed by the South Sea promoters as the bubble stretched tighter.[44]

The events of the French Revolution, Terror, Directorate, Consulate, and Empire, along with incidents of the Napoleonic Wars themselves, similarly served as displacements, setting in motion large-scale specie movements in 1792–93 and 1797 and opening and closing markets in Europe and elsewhere for British and colonial goods. Further political events of the kind in France were the Restoration (1815), the July Monarchy (1830), the February 1848 revolution, and the Second Empire (1852). The Sepoy Mutiny in India in May 1857, followed by

a Hindustan military revolution, contributed to the distress of London financial markets.[45] They afford a precedent for the Invergorden disorder of September 1931, when a contingent of British sailors came close to striking over pay reductions decreed by the new national government. This was interpreted by continental Europe as mutiny on the part of one great British institution, the navy, and had some role in humbling one other great institution, the Bank of England, by pushing Britain off gold.[46]

War, revolution, restoration, change of regime, and mutiny are taken here to come largely from outside the system, the model being designed to exclude them. Monetary and financial displacements are more difficult to describe as exogenous. But maladroit recoinage, tampering with gold/silver ratios under bimetallism, conversions undertaken to economize on government revenue which unexpectedly divert investor attention to other avenues, new lending which proves successful beyond all anticipation—these can also be regarded as displacements.

Two German recoinages provide a study in contrast. In the first, in 1763, Frederick II of Prussia bought silver in Amsterdam on credit to provide for a new coinage to replace that which had been debased during the Seven Years' War, and withdrew the old debased money from circulation before the new money was issued. This precipitated a deflationary crisis and the collapse of the chain of discounted bills.[47] More than 100 years later, after the Franco-Prussian indemnity, German authorities issued new money but this time before the old was withdrawn, in order to save interest. In three years the circulation of coins rose threefold from 254 million thalers (762 million marks). The result was inflation.[48]

The crises of 1893 in the United States, arising from the threat to gold convertibility from the Sherman Silver Act of 1890, has already been noted. So have the British debt conversions of 1822, 1824, 1888, and 1932, though the last was associated with a boom in housing that did not lead to crisis. In France, conversion of the 5 percent rente was dis-

cussed after 1823 as the money supply expanded, and the rate of interest would have fallen had investors not been reluctant to buy rentes at a premium. Each of three bankers had a different idea of the purpose of the conversion: Rothschild wanted to sell more rentes; Greffuhle (and Ouvrard) hoped to attract investors into canals; Laffitte wanted to ensure the development of industry. In the event, political obstacles prevented passage of the necessary legislation, and the market finally gave up its objection to maintaining the rente at a premium. This sharp decline in interest rates touched off speculation.[49] Canals were built by the government with private money,[50] and the faint glow of a railroad boom could be seen in France along the Loire, the Rhone, and the Seine. But the main object of speculation was building in and around the major cities—Paris, Mulhouse, Lyons, Marseilles, Le Havre.[51] Honoré de Balzac's novel *César Birotteau*, written in 1830 and recounting the doleful story of a perfumer who was enticed into buying building lots in the vicinity of the Madeleine on borrowed money for "one quarter of the value they were sure to have in three years," was inspired by this experience.[52]

The successes of loans in recycling indemnities after the Napoleonic and Franco-Prussian wars and World War I have been mentioned. Any surprising success of a security issue, with a large multiple oversubscription and a quick premium for subscribers, attracts borrowers, lenders, and especially investment bankers. The Baring loan of 1819—"the first important foreign loan contracted by a British house"[53]—led quickly to a series of issues for France, Prussia, Austria, and later, after independence for the colonies, the Spanish American republics. The Thiers rente made French banking houses salivate in the hope of foreign loans, a hunger that received a further fillip from the 1888 conversion loan for czarist Russia which bailed out German investors and sent French investors down a trail that was to end, after revolution in 1917, with a whimper rather than a bang. The Dawes loan in 1924, opened the eyes of American investors to the delights

of foreign lending, from which they were to turn away in half a decade. The Thiers rente was oversubscribed fourteen times, and the Dawes loan eleven. Far more important than the size of the multiple, however, was its relation to expectation. Rosenberg called three French loans of 1854 and 1855 sensational, since they were oversubscribed almost two-to-one (468 million francs on an offering of 250 million), four-to-one (2,175 million francs for an issue of 500 million), and five-to-one (3,653 million against 750 million). In Austria and Germany, however, when the speculative boom of the 1850s was under way, the Kredit Anstalt opening stock sale was oversubscribed forty-three times, largely by people who had stood in line all night; and when the Brunswick Bank sought 2 million thalers in May 1853, it was offered 112 times that amount in three hours.[54]

Objects of Speculation

The objects of speculation will differ from boom to boom and crisis to crisis. It would be impossible to furnish an exhaustive catalogue of what goods and assets attract the play where and when. A short list is furnished in the stylized table of cycles presented in the appendix. A somewhat more detailed listing, in roughly chronological order, is perhaps worth offering here. The list shows the tendency for these objects to move from a few favored items at the beginning of our period to a wide variety of commodities and other assets and instruments at the end.

The list is partial, suggestive:

British Government debt: Amsterdam, 1763.
Selected companies: South Sea Company, Compagnie d'Occident, Sword Blade Bank, Banque Générale, Banque Royale, 1720;

British East India Company, 1772; Dutch East India Company, 1772, 1783.
Import commodities: sugar, coffee, 1799, 1857 in Hamburg; cotton in Britain and France, 1836, 1861; wheat in 1847.
Country banks: England, 1750s, 1793, 1824.
Canals: 1793, 1820s in Britain; 1823 in France.
Export goods: 1810, 1816, 1836 for Britain.
Foreign bonds: 1825 in London; 1888 in Paris; 1924 in New York.
Foreign mines: Latin American in Britain, 1825; German in Britain and France, 1850.*
Foreign direct investment: by U.S. companies, 1960s.
Building sites: 1825 in France; 1857 in the United States; 1873 in Austria and Germany; 1925 in Florida; 1970s in Florida, Arizona, and New Mexico.
Agricultural land: *biens nationaux* (noble land confiscated during the Revolution in France), speculated in from 1815 to 1830s.
Public lands: United States, 1836, 1857; Argentina, 1888–90.
Railroad shares: 1836, 1847 in Britain; 1847, 1857 in France; 1857, 1873 in the United States.
Joint-stock banks: Germany, 1850s and early 1870s.
Joint-stock discount houses: Britain in the 1860s.
Private companies going public: 1888 in Britain; 1928 in the United States.
Existing and merged companies: 1920 in Britain; 1928 in the United States; conglomerates in the United States, 1960s.
Copper: 1888 in France; 1907 in the United States.
Foreign exchange: the mark in 1921–23; the franc in 1924–26; sterling in 1931, 1964, etc.; the dollar in 1973.
Gold: 1960s, 1970s.
New industries: the United States in 1920s, 1960s.
Buildings: hotels, condominiums, office buildings, nursing homes, retirement villages.
Commodity futures.
Stock puts and calls (options).

It is necessary now to move to a critical question, one which probably cannot be resolved. Assume that we have demonstrated that destabilizing speculation can occur in a world of individuals whom it is convenient and fruitful to consider as normally rational. Permit this world to be perturbed by a "displacement" of one sort or another, largely from outside the system, giving rise to prospects which individuals misjudge, either for themselves or for others. At some stage, investment for use gives way to buying and selling for profit. How likely is the speculation to lead to trouble?

* Referring to the mania in domestic mines in 1873, Ludwig Bamberger, the German banker and deputy, said: "The exchange is now caught up in mining companies, and mining, as my experience teaches, is the last act of the drama" (quoted by Felix Pinner, *Die grossen Weltkrisen*, [Zurich and Leipzig: Max Niehans Verlag, 1937], p. 208).

No answer, however tentative, can be given until we explore the credit and money mechanism in Chapter 5. There is, however, a philosophical riddle as to whether two or more objects of speculation must be (are likely to be?) involved before "overtrading" reaches sufficient dimensions to result in crisis. Let us take a few occasions when there seem to have been two or more objects.

The 1720 South Sea and Mississippi bubbles were related, as Chapter 7 will explain, and powerfully stoked by monetary expansion in the two countries that supported a high head of speculative steam. Speculation starting in the securities of the South Sea Company and the Sword Blade Bank in England, and in those of the Mississippi Company and John Law's *Banques* in France, spread rapidly to other ventures, mostly swindles, and to commodities and land. The South Sea Company was brought down by its attempt to suppress rival speculations, bringing proceedings under the Bubble Act of June 1720 against York Buildings, Lustrings, and Welsh Copper. The effort boomeranged.[55] The spread of speculation from one object to another, to generalize the rise of prices, is illustrated by the fact that speculators who were forehanded enough to cash their profits in South Sea stock moved on to purchase bank and insurance stocks or country houses.[56] So closely linked were the several markets that in time the price of land began to move with South Sea bubble quotations.[57]

The 1763 boom seems to have had no particular focus; rather, it was based exclusively on government war expenditure and its finance through chains of discount bills. The

DeNeufville Brothers, whose failure set off the panic, sold "commodities, ships, and securities like so many Dutch firms,"[58] with hundreds of thousands of florins in acceptance liabilities against which they rarely kept more than a few thousand guilders in cash reserves. Some contribution to the downturn in business may have been brought on by an unparalleled drought in England in 1762, with a shortage of hay and scarcities of meat, butter, and cheese.[59] Nevertheless, speculation leading up to the crisis seems not to have been concentrated.

The crisis of 1772 was precipitated by speculation in Amsterdam and London in the stock of the East India Company, and by the collapse of the Ayr Bank (Douglas, Heron & Co.). Numerous complex details are involved, including the political reverses of the East India Company, its credit being restricted by the Bank of England; the practice of the thrusting new Ayr Bank (which was left the bad loans by the established banks) in borrowing from London when its acceptances came due; and the flight in July 1772 of Alexander Fordyce, who had lost his firm's money selling East India Company stock prematurely. When the stock actually fell in the fall of the year, Clifford & Co., the Dutch banker which had headed a syndicate trying to push the price up, went under. These phenomena seem superficial, however. Heavy investment in Britain in houses, turnpikes, canals, and other public works had put a strain on resources and unleashed the excess credit.[60] A source I have been unable to check relates the fall in coffee prices beginning in 1770 to the financial crisis of 1772–73,[61] but this is not mentioned by Wilson, the standard source, or by Ashton, Clapham, or Buist.[62]

In 1793 there were several causes: country banks, canals, the Reign of Terror that stimulated an initial flow of capital to Britain, and bad harvests. In 1799 there was one cause, the tightening and loosening of the blockade. Contrarywise, the crisis of 1809–10 is said to have had "two separate causes:

a reaction from the speculation in South America and a loosening and then tightening of the continental blockade."[63]

In 1815–16 came a postwar boom of exporting to Europe and the United States which exceeded all possibility of sales, plus a fall in the price of wheat. Canals and South American government bonds and mines combined in 1825; British exports, cotton, land sales in the United States, and the beginning of the railroad mania contributed to the crisis in the mid-1830s. The crisis of 1847 had the railway mania, the potato disease, a wheat crop failure one year and a bumper crop the next, followed on the Continent by revolution.

One could go on, but the recital is wearisome. In most of the significant crises at least two objects of speculation were involved, and (as will be seen in Chapter 7) at least two markets. Just as the national markets were interconnected, so the speculation was likely to be, if only by the underlying credit conditions. But when a crisis like that of 1847 arises from objects as disparate as railroads and wheat, there is some basis for suggesting that the crisis is accidental in origin, unless the monetary weakness which feeds it is systematic.

National Differences in Speculative Temperament

Before we close our discussion of speculative manias, we should perhaps nod to the suggestion that one country is more inclined to speculate than another. The proposition is dubious, rather on a level with the view in Europe of venereal diseases as characteristic of a neighboring nation, e.g., "the French disease," "the English disease," "the Italian disease," etc. There may be something to the notion that banking institutions give more play to speculation in one country than in another. Juglar for example claims the French crises in the

eighteenth century were less abrupt and less violent than those of Great Britain because (after the John Law affair) credit in France was less used and less abused.[64] A different view ascribes French experience to a severe bankruptcy law:

> Whether by the educating forces of law and established institutions, or by tradition, a high standard of business honesty prevails in France. The act of sons in toiling for years to pay the debts of their fathers, and of notaries in paying for the defalcations of one of their number, for the sake of the profession, although without personal association with him, indicates a standard of compliance with business obligations which cannot be without influence upon the material prosperity of a people. It may be surprising that the nation whose soldiers are so noted for dash in war should furnish financiers and business men who are the embodiment of conservatism in their methods, but such is clearly the case.

This same author goes on to say:

> England is the country in which a spirit of adventure and speculation has done most to promote crises and depressions.[65]

A common view is that the United States is "the classic home of commercial and financial panics," presumably because of wildcat banking.[66] But apart from especially permissive institutions, it is easy to find abundant and contradictory views on the demand side for other countries also: love of gambling lies deep in the Dutch character.[67] "The French nation is prudent and economical, the English nation is enterprising and speculative."[68] "The character of this nation [Britain] is in carrying everything to excess . . . virtue, vice."[69] After 1866, a new arrogance was said to have taken hold of the Germans, but they surpassed the French only in "stock-market swindling and speculation horrors."[70] Morgenstern finds ten panics in France, exceeding by two even the United States, which is "not surprising, given the unstable character of French politics."[71] (To be sure, this addresses displacements rather than love of speculation.) Contrast, however, the opinion of a French financier who claims that "the French love money not for the possibilities of action which it opens, but for the income it assures."[72] Or consider two views, at the level of a Harvard-Yale debate, from a fictional Frenchman and an Englishman in 1931:

> William Bertillion: England's such a Christmas tree for share-pushers. Noble lords will sit on the board of any company for a couple of quid a sitting. And the public. Loco or idiotic. God, I've never heard of such people, except perhaps some peasants in Bessarabia, or the niggers in the Cameroons, who believe in what they believe in. Magic. Put up any sort of business that sounds utterly impossible and they gulp it down.[73]
>
> Stewart: England's the world's banker. Never failed yet, never failed yet. She keeps her word, that's why. . . . None of this—none of this speculation you get in the American stock market. Every Tom, Dick and Harry trying to make a pile—like in France.[74]

It's a standoff. The speculative temperament may differ among countries. One thinks of the Danes, for example, as phlegmatic and not particularly inclined to take risks. Levels of speculation may also differ from time to time for a given country, say, in moods of national elation or depression. We recognize the possibilities, but abstain from trying to fit them into our framework.