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## Mounting Downside Risks: Financial and International

Until now, this book's argument has analyzed recent Japanese economic conditions, how those conditions differ from the economy's potential state of recovery, and what factors would be involved in moving it from the current low state of growth to the higher one. Policymaking, however, should be forward-looking. The question is not just where are we now and where *can* we be now, but what might happen in the future? In other words, it is important to assess the risks to the current situation, both positive and negative, in the absence of policy action. These opportunities or risks might be easily encouraged or prevented by current policy, or they might require a different policy stance, but they should be taken into account either way. As will be discussed, there do not appear to be any developments on the horizon likely to bail out the Japanese economy from its current situation without policy action. In fact, the balance of opportunities and risks buttresses the need for decisive policy action by Japanese policymakers, because without such action the situation may take a significant turn for the worse. In the summer of 1998, with the Japanese people and world financial markets looking for action after the LDP victory in the Diet's upper-house election, those risks may be realized on a timetable faster than the Japanese government's.

There are three primary sources of downside risk to the Japanese economic outlook. First, there could be a collapse of confidence on the part of Japanese households. As discussed in chapter 3, there is evidence of an accelerating rise in precautionary saving by Japanese citizens. This trend has taken a sharp turn for the worse now that the downturn is more likely to directly affect these citizens' fortunes because the fiscal-

policy-caused contraction of 1997-98 has taken hold. Through 1996, despite the poor performance of the Japanese economy, such a collapse of confidence did not appear to be occurring; unsurprisingly, as the Japanese labor market situation has eroded, so has consumer confidence.

The second risk is that of outright financial crisis. While the Japanese banking system, and financial system more broadly, has weakened since the bubble burst in 1992, it is only since mid-1997 that the inefficiency that this weakness caused has begun to exert strong effects on the macroeconomy. Just as Japanese consumers lost confidence rapidly only when the risks to their employment and income became obvious, the decline in Japanese banks' ability to intermediate credit became relevant only when their own capital began to erode significantly. Also analogously to the situation with consumers, the lending of Japanese banks has the potential to decline rapidly should certain events come to pass. These two sources of risk have a great potential to reinforce each other, because consumers are also savers, and seeing lending and investment drop because of banking problems, they will seek to remove their money from the banking system; the banking system, in turn, stands most threatened should deposits be withdrawn from it in large numbers.

The third source of downside risk to the Japanese economic outlook comes from the international front. Even though the current situation in Japan is largely caused by domestic factors and policy choices, it has significant effects on the economies in its region and the rest of the world. Moreover, these effects can feed back directly into the functioning of the Japanese economy itself. The most obvious and direct sources of feedback are from the collapse of demand in its Asian neighbors and the rising pressures for trade protectionism in the United States and other countries that have seen their current account deficits rise with the Asian crisis (and Japanese net exports). Still more dangerous, however, is the possibility that these events, or the risks to consumer confidence and Japanese banks in combination with them, would prompt large-scale capital flight from Japan. As will be discussed below, this is a far from unlikely scenario, and its implications would be far-reaching. Japan could find itself simultaneously facing a rapidly depreciating yen and a domestic financial crisis. The measures necessary to stabilize the yen could work contrary to those necessary to stabilize the financial system; if the need to inject liquidity into the financial system were emphasized, such policy could accelerate the yen's decline. In such a dilemma, little could be done to prevent some major further decline in Japanese and world economic growth.

These compounding risks are the reason that stabilization—of consumer confidence, of the financial system, and of the yen's purchasing power—should be the main concern of Japanese economic policy. Each of these can be stabilized, through a combination of fiscal, monetary, and financial measures, so long as the effort is begun before the risks begin

to realize and then reinforce one another. It is in this regard that monetary policy and financial reform become almost as important as fiscal expansion in determining the performance of the Japanese economy. As a result, I take into account two significant implications for economic policy in chapter 5, which offers a program for Japanese economic recovery: measures to raise and anchor expectations regarding purchasing power take precedence over efforts at monetary expansion (such as yen depreciation) that might be destabilizing; financial reform must focus on giving the Japanese savers and international capital markets incentives to keep their money in, or return their money to, the private banking system. Japanese economic reforms to date, including the so-called “bridge bank” of uncertain purpose, aid only indirectly, at best, in restoring these incentives, and so risk too much in their effort to keep credit flowing.

What might seem prudent policy restraint or *laissez-faire* for the Japanese economic situation as it is in 1998 becomes imprudent when the risks to the Japanese economy are properly assessed. Prudence in the manner of policymaking is no substitute for risk minimization in practice. Sometimes, very active policy is the most responsible course open to policy makers if the downside risks are sufficiently great.

## Confidence Is the Key

Most people’s as well as most economists’ intuition tells them that economic growth has something of a self-fulfilling quality to it. If I believe that the economy will grow, whether I am an individual or a business CEO, I will be more likely to invest and to spend, so long as I believe that my belief is shared by others. The opposite holds if I believe that others are unlikely to spend and invest (this is the more general statement of what drives the “paradox of thrift” discussed in chapter 3). Investment would appear particularly susceptible to such “animal spirits” because it involves planning for the future based on profit expectations. A project that might prove profitable when demand is rising might fail to be so when stagnation sets in, even if the project itself is unchanged.

This intuition underlies a great number of the analyses of economic development—economies that make the leap to growth usually do so when a sufficient number of businesses and households in the economy make the jump together. Without trust or a critical mass of mutually reinforcing contracts and expectations, no one individual or firm can afford to make the move. Self-fulfilling shifts in economic confidence also underlie the idea of market panics, that is, macroeconomic situations that on some reasonable set of underlying factors (“fundamentals”) are viable, but are far from viable when capital is broadly withdrawn and everyone

else needs to withdraw capital or lose their stake.<sup>1</sup> If panic is the driving cause of switches between good and bad economic states, the restoration of confidence becomes all important; if confidence is lost, it takes a great deal of visible economic success to bring the economy out of its perception-driven decline.

These intuitions are very much the stuff of reality. Historically, the worst macroeconomic collapses have occurred in the aftermath of financial crises, especially the withdrawal of funds from banks.<sup>2</sup> Given the role of financial intermediaries, particularly banks, in bringing expectations to fruition (e.g., extending loans for investment, safekeeping deposits, providing credit in times of temporary distress), this pattern is broadly consistent with the importance of confidence in determining macroeconomic fluctuations.<sup>3</sup> Hamilton (1989, 1990) and other researchers following his work have documented that time-series data on the United States support the picture that the economy fluctuates between states of low and high growth (rather than growth that smoothly varies over time). Economic theory has caught up with this historical pattern and deep-seated intuition in recent years and spelled out the financial mechanisms through which such switches between good and bad states of the economy arise. Bernanke and Gertler (1989) and Kiyotaki and Moore (1997) provide models where realistic imperfections in credit markets can strongly reinforce and transmit asset-price movements (which are presumed to be driven by expectations).

Azariadis and Smith (1998) develop a particularly persuasive model wherein the sound assumptions that (1) capital investments require intermediated financing<sup>4</sup> and (2) adverse selection exists<sup>5</sup> are sufficient to generate an economy characterized by switches between high and low levels of growth. In their model, if people expect too low a return on investment, savers transfer money out of the banking system and into lower-yielding assets such as cash (note here the shades of the liquidity trap described in chapter 3, which provokes credit rationing and a drop in investment

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1. See Sachs (1997) and Stiglitz (1998) for characterizations of the Asian financial crisis (outside of Japan) in just these terms.

2. See Friedman and Schwartz (1963) for a history explaining most of the pre-Second World War economic fluctuations in the United States in terms of such financial breakdowns. Mishkin (1994) gives additional examples.

3. Of course, financial firms have effects on the economy directly as well as through confidence, and their disruption has other effects, which I discuss in the following section.

4. That is, bank loans rather than the issuance of securities, which is true for most investment even in the United States, let alone in Japan, where banks play a much larger role (see Jenkinson and Mayer 1992).

5. Which means that because lenders cannot always tell who the good borrowers are, movements in interest rates can attract too many of the poor risks, so lenders sometimes lend less than they could given outstanding demand.

and aggregate demand. Alternatively, if enough savers are convinced that the future returns on investments in the economy are high, a rise in interest rates can be self-fulfilling and bring higher growth. Evans, HANKA-POLIA, and Romer (1998) produce a similar model of an economy with inherent fluctuations between high and low growth states that coincide with swings in growth expectations. They work from the equally realistic assumptions of imperfect competition (due to start-up costs for firms) and complementary demand for capital goods (e.g., computers increase demand for printers and telephone networks).

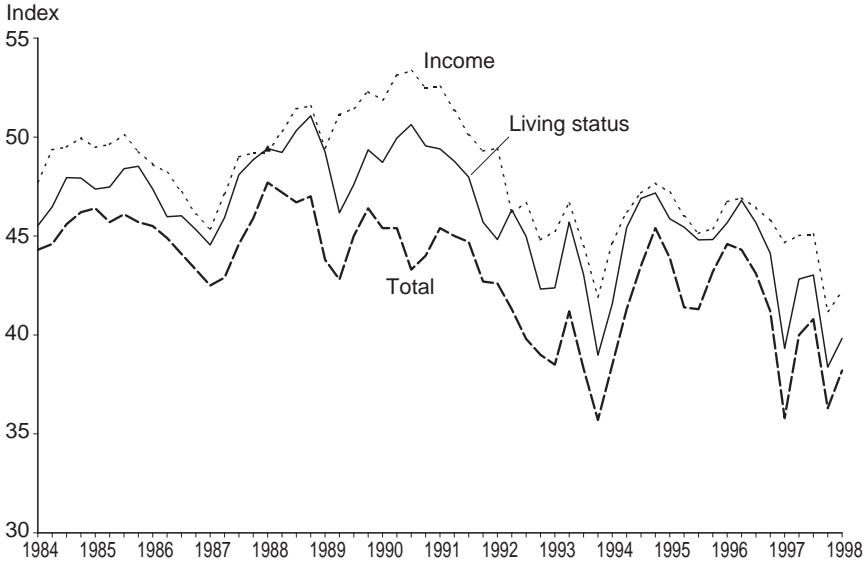
From a policymaker's perspective, the combination of historical and theoretical results means that household confidence has to be taken seriously. It is not simply a random variable, switching with whim and fad and without regard to the economic environment. The rational-expectation foundations of the models discussed here and the consistent historical pattern of factors that tend to lead to financial panics and bank runs (discussed below) strongly suggest that most declines in confidence are driven by actual economic events, even if random shifts in confidence cannot be ruled out. Furthermore, such shifts in confidence are not just matters of opinion or politics that can be ignored while economic policy concerns itself with the "long-run fundamentals"—economic confidence is itself a fundamental that can become self-fulfilling. Policymakers who allow slow growth to persist (as, I argue, Japanese policymakers have done in 1994-98) might find that the economy gets locked into that stagnant or declining state. There may not always be a continuum of choices about economic performance—instead, there may sometimes be a choice between keeping the economy in a high-growth or a low-growth equilibrium. The perception of there being smooth trade-offs and gradual variations in macroeconomic performance assumes that local, linear deviations around a steady state can occur without dislodging the economy from that state. This is a useful assumption for both modeling and policymaking in normal times, but the assumption need not always hold.<sup>6</sup>

In 1997-98, the Japanese economy appears to be making just such a switch from downturn in a high-growth state to an ongoing low-growth state. The key was the decline in confidence among Japanese citizens and businesses. As seen in table 2.6, after 1996, economic forecasts had caught up with the slow-growth reality rather than being surprised by it. The combination of strong growth in 1996 because of the 1995 fiscal-stimulus package and the sharp reversal that succeeded it because of the

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6. As Dornbusch (1991) put it when discussing a related gap between historical instances where economic shocks transmitted widely across borders and our usual small estimates of cross-border economic linkages, "A highly synchronized decline in world demand is not studied with macroeconomic models because we only feed them small sympathetic shocks; we do not feed them crisis scenarios in which everybody says, 'Oh, no, the world is going down, bad idea to invest today'."

**Figure 4.1 Consumer Sentiment Index, 1984-98**



Note: Total index is seasonally adjusted, others are not seasonally adjusted.

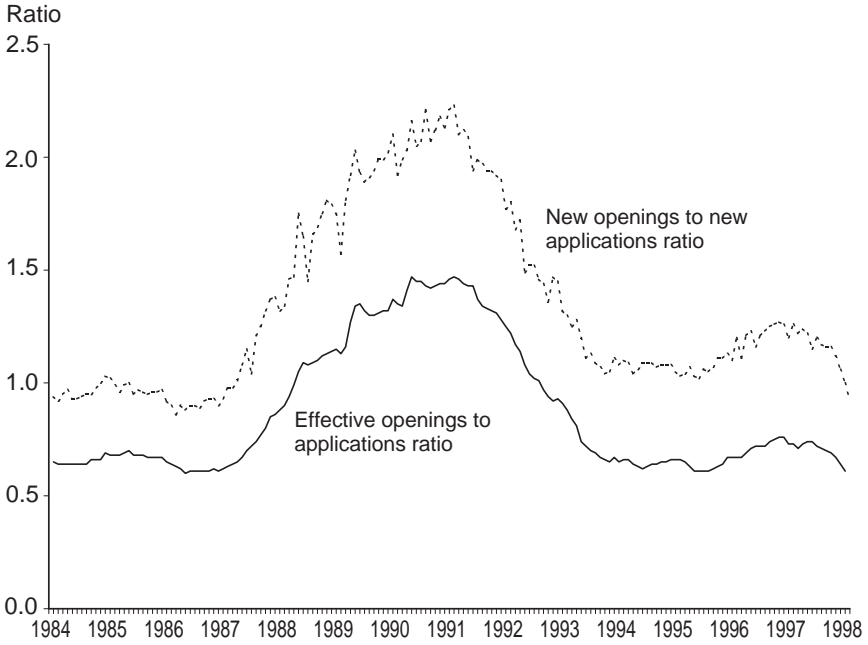
Source: Consumer Sentiment Index, Economic Planning Agency.

contractionary fiscal policy of 1996 and 1997 (see chapter 2) seems to have brought about the reassessment. Figure 4.1 shows the Japanese Consumer Sentiment Index, which remained at levels comparable to the mid-1980s (a time of normal, near-potential growth) through 1992-1993, and which almost returned to those levels in late 1995 and 1996. With the 1997 contraction, confidence has plummeted and seems to be varying around a new level that is lower than that held throughout the previous 15 years.<sup>7</sup>

Figure 4.2 plots the ratio of job openings and new jobs offered to the number of applicants, and again the 1997-1998 figures are beginning to drop for the first time below those of the early 1980s. While job openings is an actual measured number, not directly a question of consumers' expectations, an increased likelihood that you, your child, or someone you know will be unable to find a job should they enter the labor force or be laid off is one of the most visceral indicators for average citizens of the state of the economy. Figure 4.3 plots the annual and then monthly unemployment levels for new graduates. The number of unemployed new graduates soared as the economy sank in 1998. Here, the effect is on the long-term expectations of young people—if they have trouble

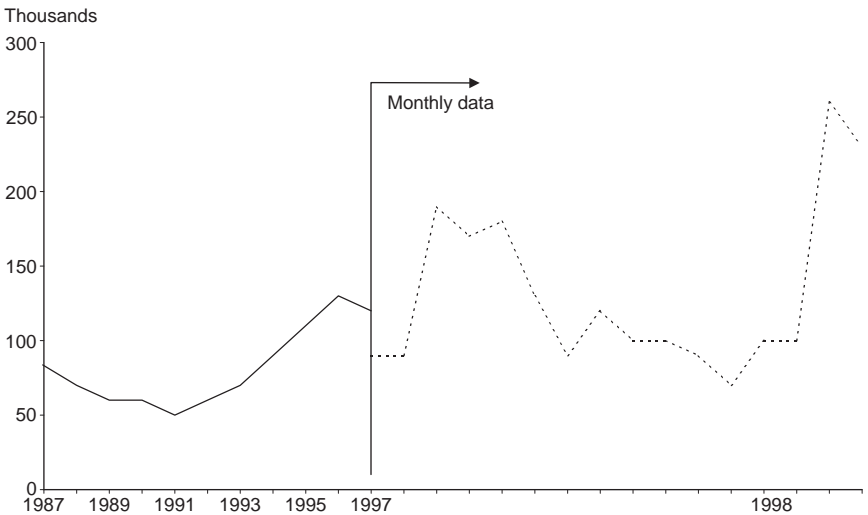
7. There is insufficient data (because of the length of time involved) to verify this claim with econometric methods.

**Figure 4.2 Job openings ratio, 1984-98**



Source: Ministry of Labor, Job Offers and Applicants.

**Figure 4.3 Unemployment of new graduates**



Source: Management and Coordination Agency, Labor Force Statistics.

getting a first job, or they know people who did not get to enter the labor force, they must face the realistic possibility of being shut out of work completely for long periods.<sup>8</sup> This growing sense of insecurity is based on low expectations for their own and the Japanese economy's income growth, which, in turn, is based on the extended stagnation of the Japanese economy. This insecurity, consistent with the rise in precautionary saving documented in figures 3.4 and 3.5, has potentially disastrous interactions with the financial system, to which I now turn.

## The Risk of Financial Crisis

The purpose of financial markets is to accumulate and evaluate information about investment opportunities. Is a proposed investment a worthwhile project? Does that investment continue to pay as expected when implemented under changing conditions? How do the changing fortunes of that investment relate to changes in other investments? Only when these questions are properly answered will capital (a society's accumulated savings) be efficiently allocated to the best projects. The job of a financial intermediary is to answer these questions, that is, to evaluate, to monitor, and to assess risk. These are not easy tasks. Information is imperfect. That is the economist's way of saying that not all information available is equally credible and free of bias and that not all information can be utilized at no cost or without judgment. In particular, information is asymmetric, meaning that the prospective borrower inherently has far better information about the project he or she proposes than the lender has when deciding whether or not to invest. This asymmetry causes two general problems to arise in capital markets: adverse selection and moral hazard. To cope with (but not remove) these problems, most financial transactions are conducted through financial intermediaries, because these firms are expert at screening and monitoring risks. Capital is usually invested by financial intermediaries in the form of (bank) loans because only such loans allow lenders to take collateral, maintain an ongoing relationship with the borrower to monitor performance, and threaten to cut off credit for nonperformance.<sup>9</sup>

A financial crisis occurs when there is a major disruption in the provision of these financial intermediary services to an economy, either because

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8. These periods could perhaps be until an economy runs in a sufficiently good high-growth state for long enough to drag those potential workers back into employment, as arguably seen in the United States in the mid-1990s.

9. Another reason for the predominance of lending as the form of corporate financing is the inability of all but the most well established and large firms to issue securities and go to capital markets directly. This also reflects the adverse selection aspects of asymmetric information (see Myers and Majluf 1984).

something has happened to a significant number of the intermediaries or because economic conditions have caused such an increase in the adverse selection and moral hazard problems that the provision of capital to good investment projects declines significantly. A financial crisis matters for macroeconomic performance because there is no readily available or close substitute for these intermediation services, either for a specific borrower who loses access to the lender that knows him or her, or for large parts of the nonfinancial sectors of the economy that, in general, cannot go directly to securities markets.<sup>10</sup> Bernanke (1983) shows that just such a widespread loss of banking services was a primary reason that the stock market crash and downturn of 1929 became the Great Depression in the United States. Small and medium-sized businesses are hit in particular by a loss of intermediation because their flow of liquidity is dependent upon the information they make privately available to their lending bank. To the extent that such businesses are a source of economic innovation and growth, this inefficiency is destructive over the long run beyond the businesses lost.

In the economy as a whole, therefore, a contraction in bank lending lowers both aggregate demand and aggregate supply, the latter because forgone or investment opportunities that are prematurely called in lower productive capacity. Investment demand will drop because it will be more expensive for nonfinancial firms to get credit, as they must either compete to establish a new relationship with the few remaining banks, or they must turn to alternative sources of credit that are not as well suited to their needs. If a flood of passed-up investment projects are submitted to remaining lenders, it becomes more difficult to distinguish the promising from the unduly risky (adverse selection), and remaining lenders will further cut back credit availability. Meanwhile, the decline in lending perpetuates itself, because every loan not rolled over harms a nonfinancial firm, whose leverage rises and collateral falls as the downturn continues.

Once these intermediation services are withdrawn, there is no policy response that can quickly replace them. Simple injection of liquidity by the central bank, while seeking to maintain total lending, is insufficient to restore efficiency and economic growth, because private information and specialized skills have been lost “because of the relationship-specific capital each [lender] has accumulated, reserves at one bank are an imperfect substitute for reserves at another” (Summers 1991, 149). This is why

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10. It is possible for instances of extreme financial *volatility* to arise that do not occasion such crises or loss of intermediation services (e.g., the 1987 US stock market crash). It is also possible for an economy’s capital markets to operate inefficiently for an extended period because of a rise in information problems or institutional failings without that causing a sharp crisis, either, as one could argue was the case in east Asia prior to the summer 1998 crisis (see Goldstein 1998). Mishkin (1994) discusses some of these definitions of financial fragility versus crisis.

government lending programs, or active use of a “bridge bank,” are palliatives at best. The intermediation skills and the specific knowledge of these substitute lenders are inferior to those of the original private banks. Such public lending banks also have less incentive to properly monitor risk, because their motive is to maximize lending not make a profit. This in turn engenders risk taking by borrowers beyond an efficient level, given easing credit standards.

The loss of financial intermediation can occur through many channels. An increase in regulatory scrutiny can lead to a contraction in lending either through the closure of banks or through forcing those banks still open to increase their reserves and write off more of their outstanding loans. Even when the supervisory authorities are simply bringing the banks up to actuarial fairness, this can decrease the overall supply of loans. On the whole, as advocated in chapter 5, such fair supervision benefits the public because it insures these banks through deposit insurance; insolvent banks or banks with very low net worth have an incentive to engage in excessive and excessively risky lending, because they have little or nothing to lose but will share fully in the benefits if their gambles pay off. Thus, although tightening supervision also tightens lending conditions in the short run, on net it helps by preventing moral hazard on the part of insolvent banks and by preventing adverse selection whereby only those projects willing to pay high interest rates (something that many of the better projects should not and will not pay) continue to get credit. The message is that a smaller provision of proper intermediation is better than improperly supervised intermediation, although once you have to choose between those two there will be a contraction in credit sooner or later.

Banks can also cut down on lending because of a “capital crunch,” that is, a decline in the value of their own equity.<sup>11</sup> In the current environment, where all industrial-country banks are supposed to maintain capital sufficient for the Bank for International Settlements (BIS) Basle Capital Accords (i.e., 8 percent of their outstanding assets), there is a clear standard below which banks are to cut back their lending if they do not have sufficient capital. A stock market decline will usually directly lead to a drop in the value of a bank’s equity; in economies such as Japan’s, where banks own stock in other nonfinancial firms, the decline in stock prices erodes that component of their capital as well. As equity and, therefore, net worth decline, and all banks suffer this at the same time, it becomes more difficult for banks to raise new capital by issuing equity or other securities, and interbank lending obviously contracts. Efforts to promote consolidation in the banking industry through mergers might prove necessary, but

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11. Bernanke and Lown (1991) analyze this situation in the United States in 1990-91, arguing that lending did drop significantly with a decline in bank capital at that time.

they will not restore capital ratios if they occur only after the solvent banks see their capital ratios declining. There certainly is little capital left over (and less reason) for such good banks to acquire other insolvent banks, absent direct government injection of funds.

A sharp fall in the supply of loanable funds available to banks, that is, deposits, is the most dangerous channel through which financial intermediation can be withdrawn. In such a situation, banks have to build up their reserves and cut back on their lending immediately, which induces a rise in interest rates because liquidity is sharply decreased. In fact, a trend toward taking money out of the banking system is called disintermediation, because it deprives the financial intermediaries of the supplies that they need to work. In its worst form, disintermediation becomes a bank panic. Bank panics arise for three rational reasons: (1) there is a true advantage to being first in line to get one's money out before the bank runs out of liquid assets (which even in solid banks are only a fraction of the liquid deposit liabilities, because banks are lending long); (2) there is poor information available to the depositors about which banks are solvent and which are not, so runs on one bank can be treated as signals about the health of others; and (3), like confidence with regard to economic growth discussed previously, bank runs can be self-fulfilling.

Ideally, government deposit insurance will prevent bank runs because it removes the advantage of being first in line and makes information on specific banks irrelevant to the depositor.<sup>12</sup> The problem is that the line where deposit insurance guarantees is drawn can never be made completely credible. On the one hand, if enough banks go broke at once, the government is tempted to partially renege on the guarantee and perhaps assess the depositors a charge or refund them only up to less than the announced amount. This is because the government does not expect to have to engage in so widespread a payoff on another occasion (at least not soon), and the faith and credit of the guarantee has already failed to prevent either the run or was undercut by poor supervision, so that the government does not really have a reputation to lose in this area.

On the other hand, if a large share of deposits, such as large corporations' cash accounts or foreigners' holdings, are not covered by deposit insurance, failure to extend deposit insurance to these accounts can result in a breakdown of the payment system, and so people will not believe that these will not be insured in the event of crisis. Meanwhile, the longer the financial system is left in a weakened state, with low net worth or insolvent banks, prior to either cleanup or a run, the more incentive the

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12. Of course, this is precisely why there must be strict bank supervision where deposit insurance exists, because the depositors themselves have no incentives to monitor the lending standards of the bank, whereas the insurer has the incentive to make sure that it does not incur unnecessary losses. Meanwhile, the bank has an incentive to gamble for high returns with the deposit-protected money because its losses are bounded from below at zero.

banks have to keep adding to the insurance burden by attracting deposits to engage in further high-risk lending (the moral hazard previously discussed). Of course, this would diminish the credibility of the deposit guarantee because the higher the bill due, the more that complete repayment is doubtful.

Now, again, it is necessary to establish the relevance of all this for Japan in the late 1990s. Japan remains a bank-based financial system, compared to, say, the United States or the United Kingdom, so that even more of its corporate financing is intermediated through banks than is financed that way elsewhere. To the extent that Japanese banks are in long-term relationships with their borrowers and have shareholdings in them, it is harder for these borrowers to substitute a new lender or nonbank financing for their specific bank's services; such relationship lending also implies that the net worth of borrowers, their collateral, and their lenders' equity all decrease in tandem, making for a vicious spiral of declining liquidity. After years of "regulatory forbearance" in hopes that Japanese banks would be able to lend and grow their way out of their bad loan problems, the supervision of Japanese banks is correctly—albeit long after the problem worsened—being stepped up, with the expected contractionary effect on lending. The equity of Japanese banks has declined significantly, to a level well below the Basle accord 8 percent, while loans classified as "behind in payments" down to "nonrecoverable" total 77 trillion yen, or 15 percent of GDP (see Ito and Zzamoszgei 1998).<sup>13</sup>

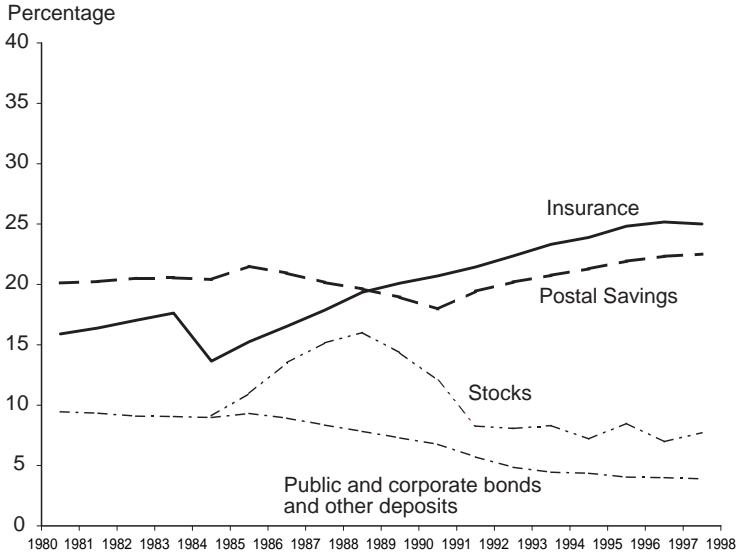
Japanese savers have begun to lose faith in the private banking system, further decreasing the availability of liquid funds. As seen in figure 3.2, even M1 growth has slowed significantly since 1996, and, as shown in figure 3.3, a greater share of that is held in cash, meaning that bank deposits are stagnating at best while total savings are rising. Figure 4.4 plots the relative shares of various types of savings in total savings outstanding. It shows that more of the increase in Japanese savings is going to insurance funds and to the public Postal Savings system, which also contracts credit and raises its cost, because neither is a good substitute lender for borrowers who were dependent on banks. In fact, the share of savings held in the Postal Savings system has been rising steadily since the Japanese market first turned down in 1990, and this trend has been strengthened by the declining differential between the interest rate offered to savers on private-sector bank accounts and that offered by Postal Savings (see figure 4.5).

Since the government directly guarantees Postal Savings and (barring inflation) currency, the substitution away from bank deposits constitutes

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13. Japanese banks also have unrealized gains on their books from their stock holdings in other firms, which are recorded at historical purchase value. In general, when the Nikkei stock index sinks below 15,000, banks move from unrealized gains to unrealized losses on this set of assets as well.

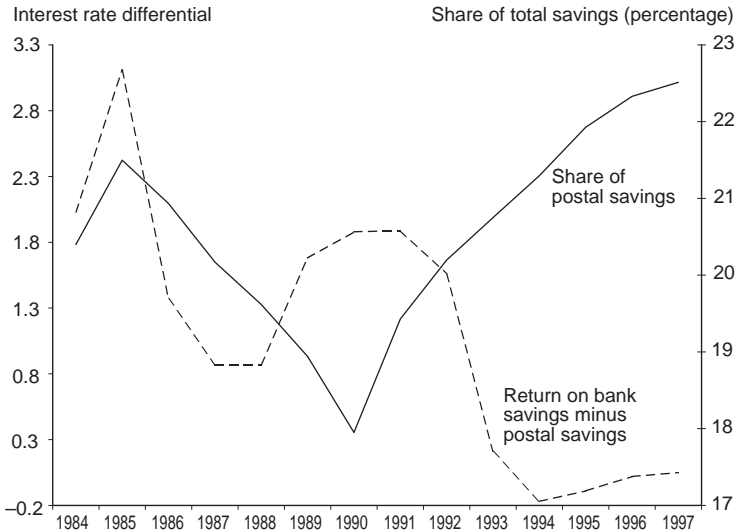
**Figure 4.4 Types of savings as a share of total savings, 1980-98**



Note: Data on stocks are available from 1984.

Source: *Economic Statistics Monthly*, Bank of Japan, various issues.

**Figure 4.5 Postal Savings interest rate differentials and share of total savings, 1984-97**



Note: Returns on one-year installment savings are compared.

Source: *Economic Statistics Monthly*, Bank of Japan, various issues.

a trend toward disintermediation by the Japanese public in the face of government deposit guarantees. The laissez-faire attitude toward accumulating bad loans by the government has logically eroded savers' confidence in the guarantee.<sup>14</sup> In addition, since the government has the ability to set the interest rate for Postal Savings (and control its growth more broadly), the Japanese government is effectively subsidizing this disintermediation (I return to this point in chapter 5). Add to this the rising capital flows abroad and the funds going into foreign banks (which inherently do not have Japanese deposit insurance coverage), and it is clear that savers believe that the risks of holding deposits in the Japanese banking system outweigh the perceived value of the guarantees. Again, these are mostly developments that either have accelerated in the past two years or have become dangerous because they have been allowed to persist for historically unprecedented lengths of time. Either way, they become self-reinforcing if left unchecked.

Even though a true financial crisis complete with a bank panic or sharp drop in banking services has not yet occurred, the availability of credit and the efficiency of financial intermediation in Japan have declined (see table 4.1). Figure 4.6 shows that the willingness of banks to lend to firms, as captured in the widely cited *Tankan* survey conducted by the Bank of Japan, has declined sharply since mid-1997. I argue that it was then that confidence began to turn and disintermediation became a factor<sup>15</sup>; in fact, from when the bubble burst until mid-1997, lending was readily available, according to historical standards on this measure, for those firms that wanted it. The last is a key point—until the 1997 contraction, the decline in investment came largely through an absence of demand for investment because firms had excess capacity and low net worth. The unavailability of credit reported by the *Tankan* survey should be interpreted as the decline in credit *supply* factors finally outpacing the drop in demand, for the reasons given above. This again is consistent with a transition from financial fragility to disintermediation and potential crisis.

Figure 4.7 tracks the issuance of corporate bonds and commercial paper, which should rise when borrowers are forced to substitute for bank loans; here, there is largely stability rather than trend change, which may be indicative of the simple unavailability of these alternatives to Japanese

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14. When potential bank failures become spread throughout the economy, the value of deposit insurance diminishes inherently because people realize they will have to pay out with one hand what they receive in the other. Insurance is worthwhile when only some of the policyholders fall victim. This is yet another reason why slow response to financial weakness increases the likelihood of outright financial crisis.

15. This question on the business survey asks firms whether they believe lending conditions that they face are tight or not, and the score is the number of yes answers minus the number of no answers. This is done separately for small versus principal enterprises, given that principal (large) enterprises normally have more alternatives to bank loans.

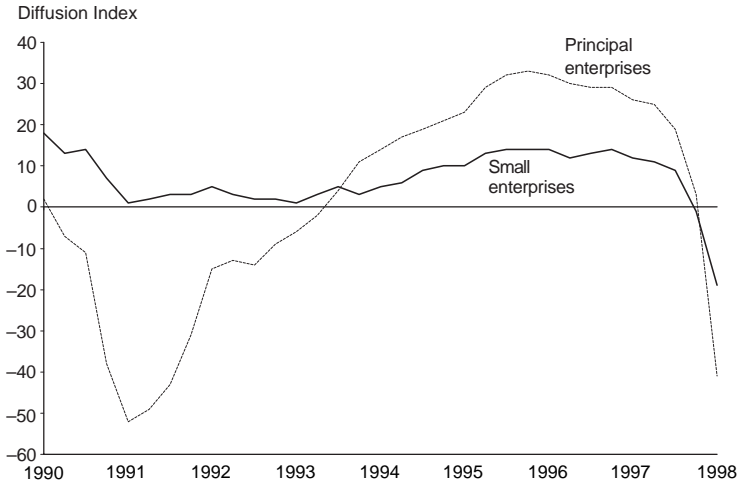
**Table 4.1 Private debt and interest burden, 1984-96**

	Total debt outstanding (percentages of GDP)				Interest payment flow (percentages of GDP)			
	Private	Nonfinancial companies	Financial institutions	Households	Private	Nonfinancial companies	Financial institutions	Households
1984	488.5	175.9	251.6	61.0	34.0	8.9	21.4	3.7
1985	501.8	175.6	265.2	61.1	33.1	8.7	20.7	3.6
1986	527.9	174.6	290.5	62.8	32.5	8.2	20.8	3.6
1987	571.7	187.6	316.1	68.1	32.3	7.5	21.2	3.6
1988	594.5	191.3	332.2	71.0	33.0	7.4	22.0	3.5
1989	614.1	192.7	347.8	73.6	36.3	7.9	24.7	3.7
1990	625.0	198.9	350.2	75.9	42.1	10.1	27.7	4.3
1991	614.7	197.9	342.1	74.7	40.8	9.9	26.5	4.4
1992	612.0	194.6	344.8	72.6	34.6	8.3	22.3	4.0
1993	624.8	197.4	354.1	73.4	31.2	7.4	20.2	3.5
1994	633.6	198.3	360.2	75.1	28.1	6.5	18.4	3.3
1995	645.7	200.1	368.8	76.8	26.2	5.9	17.5	2.9
1996	638.5	195.9	368.2	74.4	22.7	4.8	15.4	2.5

Note: Private category excludes nonprofit institutions.

Source: Economic Planning Agency of Japan, *Annual Report on the National Account*.

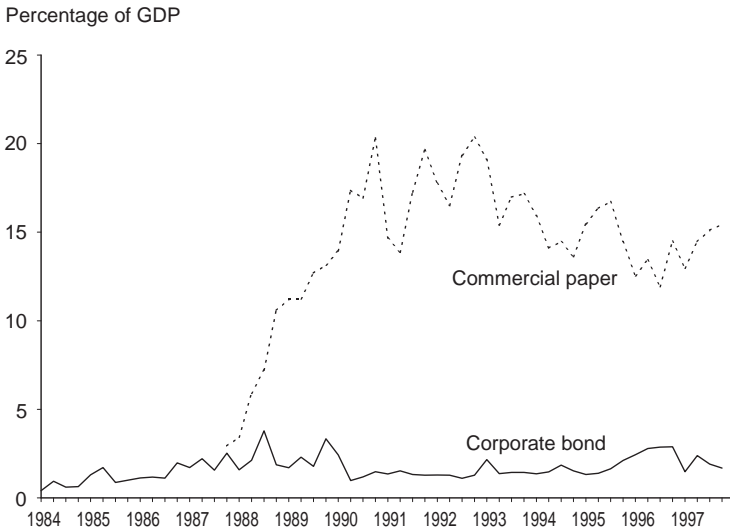
**Figure 4.6 Business survey (Tankan), lending attitude of financial institutions, 1990-98**



Notes: Principal enterprises include firms with capital greater than 1 billion yen. Negative indicates “tight” credit conditions.

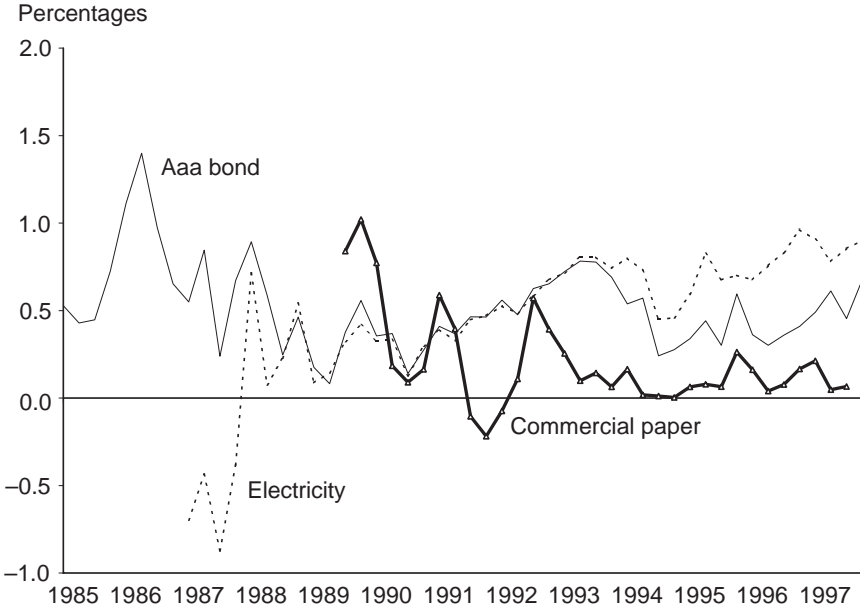
Source: *Economic Statistics Monthly*, various issues, Bank of Japan; BOJ web page, <http://www.boj.or.jp>.

**Figure 4.7 Corporate bond and commercial paper issuance, 1984-97**



Source: Bank of Japan, *Economic Statistics Monthly* (various issues).

**Figure 4.8 Risk spread, 1985-97**



Note: Risk premium is defined as (corporate bond-rated) Aaa yield (12-year) or electricity corporate bond yield (longest) minus JGB yield (10-year), and commercial paper yield (3-month) minus JGB yield (3-month).

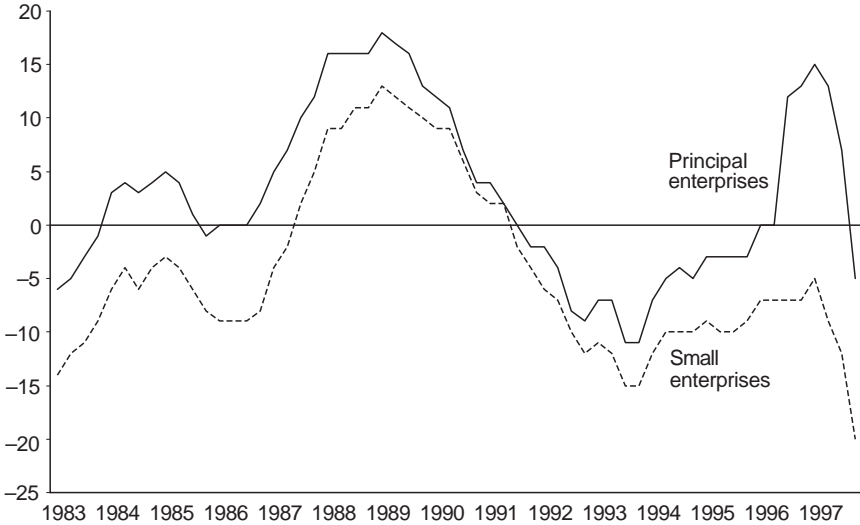
Source: Bank of Japan, *Economic Statistics Monthly*, various issues.

firms, even when desired.<sup>16</sup> The movement of bond risk spreads between private and government borrowers, graphed in figure 4.8, supports such a reconciliation of figures 4.6 and 4.7. In a time of credit contraction, the interest rate spread should widen between low- and high-quality borrowers, because lenders will be more suspicious of those who want to borrow at high interest rates. We can see occasionally interrupted but ongoing rises in both the Aaa-Japanese government bond and the electricity-Japanese government bond spreads since 1994-95; the commercial paper spread has varied a great deal less in the 1990s and remained negligible, which is consistent with the interpretation that only the very best borrowers can access commercial paper in Japan and that it has not become a major alternative source of capital.<sup>17</sup>

16. More anecdotal recent data, however, do indicate a sharp rise in commercial paper issuance as those nonfinancial firms that can go directly to credit markets do so.

17. Bond-rate data on lower-quality Japanese borrowers are difficult to come by because so few firms get access to Japanese credit markets without bank intermediation—which again stresses the importance of this channel. Friedman and Kuttner (1993, 1994) discuss

**Figure 4.9 Business survey (*Tankan*), financial position, 1983-97**



Note: Negative indicates financially difficult conditions.

Source: *Economic Statistics Monthly*, various issues, Bank of Japan.

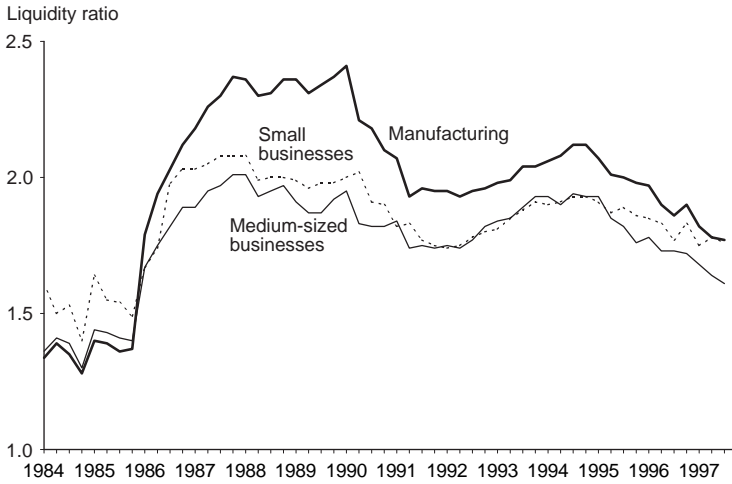
This recent credit crunch has been associated with real macroeconomic effects. Unsurprisingly, the financial position of businesses has declined sharply since the fiscal contraction of 1997 (according to the *Tankan* survey; see figure 4.9). More tellingly, small enterprises, which are more dependent on bank-intermediated lending, remained in the negative “financially difficult” position during the upswing of 1995-96, while large principal enterprises with access to other forms of credit were able to take financial advantage of the situation.<sup>18</sup> The gap between principal and small enterprises’ financial positions widened at this time, and even as principal enterprises’ positions have declined, the gap has remained wide, again consistent with a credit crunch (as opposed to the narrower gap seen through the 1990s up until mid-1996). Figure 4.10 plots the liquidity ratio of firms in the same survey and shows less difference. For both large and small firms, however, liquidity was actually rising through mid-1994, which could go with a voluntary cutback in investment. The decline in liquidity has been strong since then. Finally, figure 4.11 displays the total

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risk spreads and the reasons for their predictive powers in general terms, with particular attention to the commercial paper spread.

18. This may also be attributable, in part, to the fact that net exports were strong in 1996-97, and fewer small firms tend to be export oriented. This survey question, however, measures financial difficulty, a function of liquidity, which is correlated positively but imperfectly with sales.

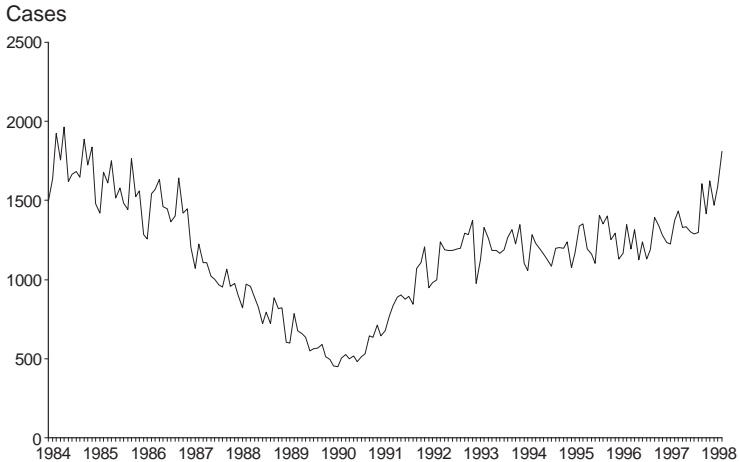
**Figure 4.10 Business survey (*Tankan*), liquidity ratio in manufacturing, 1984-97**



Note: Liquidity ratio = (quarter-end balance of cash and deposits + quarter-end balance of securities) / monthly average sales during the fiscal year to which the quarter-end figures belong. Sales is the annual projection when the quarter-end figures were finalized.

Source: Bank of Japan, *Economic Statistics Annual*, various issues.

**Figure 4.11 The number of bankruptcies, 1984-98**



Source: Tokyo Shoko Research.

number of bankruptcies in Japan per month, a number that had remained within historical norms until mid-1996 despite press attention suggesting otherwise. This again should be associated with the financial fragility that is giving way to a more serious credit contraction, because the Japanese relationship banking system is meant traditionally to help distressed firms work through temporary illiquidity and avoid bankruptcy, so the rise in bankruptcy must stem from a decline in this kind of traditional bridge lending.<sup>19</sup>

In summary, the nature of the financial problem in Japan has changed in the past year, from one of financial fragility, where investment demand was low and banks were engaged in risky lending, to one of credit contraction, where banks are ceasing to lend in response to declining equity, tougher regulatory supervision, and decreased availability of loanable funds.<sup>20</sup> The effect of this has been to increase the inefficiencies of credit allocation, which has particularly harmed small borrowers, and to increase the amount of macroeconomic contraction attributable to financial rather than broader aggregate demand or fiscal factors. The risk to the Japanese economy is that this could turn into outright financial crisis if the trend toward disintermediation were to lead to a rapid removal of deposits from the private banking system. That would lead to a contraction in bank lending much greater than seen so far and to a large decline in investment and aggregate demand as a result. This development would interact with and reinforce the risks from a collapse of economic confidence, a risk that was already rising in the aftermath of the fiscal policy and growth reversal of 1996.

How likely is a true financial crisis? One would hope that it need not be all that likely for the Japanese government to want to take preemptive steps. Some of these are outlined in chapter 5, but the emphasis should be on changing the incentives for savers to put money back into the private banking sector and for that banking system to be *quickly* reconstituted. The emphasis of policy should not be on maintaining the flow of credit to borrowers, despite the real short-run macroeconomic costs of further lending declines, because that could lengthen the financial reform process and do nothing to stem disintermediation and will at best be an inferior substitute to private-bank lending. If the disintermediation can be reversed, however, the worst of the credit contraction will be reversed as well, and the longer-term stability assured.

In addition, it is mistaken to believe that monetary policy can easily reverse the effects of a financial crisis, particularly a bank panic, once it

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19. See Hoshi, Kashyap, and Scharfstein (1993) for a discussion of Japanese banks' relation to those borrowers in financial distress, both in theory and prior to the present period.

20. Working with data through 1995, Bordo, Ito, and Iwaisako (1997) decided that there was no financial crisis in Japan to that point precisely because there were no signs of a significant rise in the currency/deposit ratio or a flight to currency. As documented in this and the previous chapter, however, that situation has since changed for the worse.

has occurred. Meanwhile, monetary-policy efforts by the central bank to inject liquidity will not only be just a partial substitute for bank lending, as discussed above, but their stance and effectiveness will be difficult to assess. In a contraction of the money supply such as a bank run, if the central bank makes M1 grow, then M2 will likely decline and interest rates will vary, yet credit will remain scarce. There will be huge velocity shocks to the normal money multiplier relationships (see Volcker 1991, 176; Bernanke and Lown 1991, 237). In addition, if there is price stickiness in wage and product contracts near zero inflation, as discussed in chapter 1, then when the money supply shrinks the price level will remain stable, which means that real interest rates will skyrocket. There is good reason for the Japanese government to get out ahead of these dangerous trends, by restoring confidence through a combination of fiscal stimulus and financial reform. As I discuss in the next section, monetary expansion to respond to a financial crisis can have devastating side effects as well, especially if it must be large, imprecisely controlled, and, therefore, somewhat destabilize expectations for the reasons discussed here.

Meanwhile, any explicit statements about the extent of deposit insurance made *after* the run has begun will be interpreted as a partial renege on the guarantee, because the current extent of protection is uncertain in people's minds and lack of quick response will be interpreted as a failure to stand by the complete guarantee.

## The Risks of International Feedback

So far, I have only spoken of the risks to Japan from internal problems of confidence and financial fragility, but the Japanese economy finds itself in a fragile international context as well in 1998. The risks to Japan from abroad include diminished trade with and demand from its neighbors should the East Asian economies decline further in their crisis' aftermath. There are additional, more pressing, risks to the Japanese economy from abroad, however, that can directly amplify the effects of a financial crisis or a collapse of confidence at home. Most critically, there are dangers of capital flight from domestic Japanese sources that could send the yen hurtling downward and exacerbate the risk of a collapse in consumer confidence and of financial crisis. In addition, there is the serious prospect that a further rapid yen decline and capital outflow, leading inevitably to a rise in Japan's balance of payments surplus, could provoke a protectionist response, given the current political and economic climate in the United States, East Asia, and perhaps the European Union.

Neither of these risks are unlikely at present, and as the Japanese domestic situation worsens, absent policy action, their likelihood increases. If the yen falls rapidly in combination with a financial crisis in Japan—where each one is likely to provoke and then reinforce the other—Japan will perhaps be unable to stabilize the situation using its policy instruments alone. The monetary and fiscal policies most appropriate to restore confidence in the yen would be opposite to those needed to restore the Japanese financial system. Then, Japanese recovery would require coordinated macroeconomic policies in the G-7. Such coordination is a difficult and uncertain process, and one likely to wait until after the crisis was strongly felt abroad. That is why monetary stabilization and stimulation of growth should be undertaken by Japanese policymakers before such a crisis occurs.

Japan could see the exact opposite of the spiral that preceded the Asian financial crisis in 1997. A persistent current account surplus and domestic lack of liquidity could produce an investment bust: higher interest rates (nominal and real) abroad than at home attract capital away from domestic uses. The outflow of capital draws down asset prices in Japan, further weakening companies' net worth and collateral and increasing the number of bad loans. More bad loans make the banks less willing to lend, decreasing liquidity.

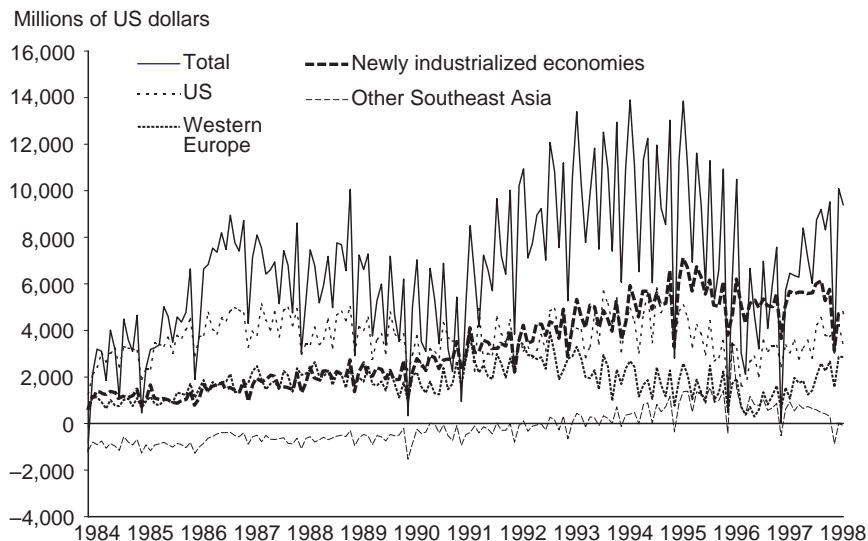
Precautionary savings rise and increase the trade surplus. This flight-driven credit contraction cycle—even in the absence of the factors discussed in the previous section—would be sufficient to erode confidence and financial stability and repeat itself indefinitely. With the fragile state of the Japanese financial system and investor confidence, it could accelerate rapidly, being amplified either at the capital flight or the credit contraction stage of the process.

The effects of such a cycle would not only be financial, but would have significant effects on trade and trade politics. The Japanese market absorbs 19 percent or more of the exports of China, South Korea, Indonesia, Thailand, and the Philippines, as well as 13 percent of Taiwan's, and Malaysia's (see Noland, Liu, Robinson, and Wang 1998). Japan's depreciation would limit imports from those countries that must export to restore their living standards, even though Japan does not compete with them directly for export markets. As the Japanese current account surplus widens, trade frictions with the United States and other Japanese trading partners would increase, especially in the current context where the United States, the "consumer of last resort," is already taking in what Congress perceives to be more than its fair share from these other Asian economies.<sup>21</sup> With a lag of two years, every 1 percent decline in the trade-weighted yen

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21. And the Congress is generally opposed to global efforts, having voted down fast track and slowed IMF funding in 1997-98.

**Figure 4.12 Trade balance, 1984-98**



Note: The numbers from March 1996 are calculated from yen using the yen/dollar spot exchange rate of the Tokyo interbank market (end of month).

Source: Ministry of Finance, *Trade Statistics Monthly*.

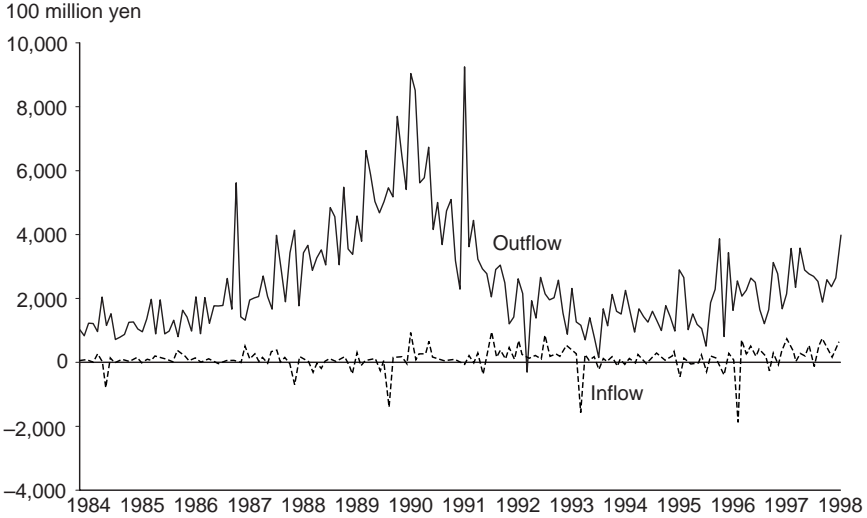
exchange rate raises the Japanese current account by \$3 billion (and the US trade deficit by \$1 billion) (see figure 4.12 for the rising Japanese trade surpluses).<sup>22</sup>

Even if the cycle of trade threat and response does not play out as it historically has, there is no question that economic effects can spread from large countries to small, prompting flights to safety (here, mostly US Treasury bills) from mobile capital everywhere, and, thus, further increasing the bilateral trade imbalances. It also should be remembered that, while flexible exchange rates in theory isolate one economy from another's policy mistakes, that process takes time and is not always smooth. The resort to trade restrictions and quotas can always be opted for instead. As Frenkel stated, "I think it is important that we include protectionism as one of the known dangers [of internationally transmitted

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22. Noland, Robinson, and Wang (1998) argue that under plausible disaggregation of sectoral effects, the response of the US trade balance could be much larger. The yen historically shows a need to eventually return to fundamental values. This would lead to a subsequent sharp rise against the dollar, prompting a new round of adjustments (see Bergsten 1998 and Bergsten and Noland 1993 for examples of such "currency and trade" cycles).

**Figure 4.13 Foreign direct investment, 1984-98**



Note: The numbers from 1984 to 1995 are calculated from the dollar using the yen/dollar spot exchange rate of Tokyo interbank market (end of month).

Source: Bank of Japan, *Balance of Payment*.

crises] because extended protectionism has implications beyond just trade flows. It makes the difference between an inward and an outward orientation, and between open and closed markets” (Frenkel 1991, 124).

This type of protectionist cycle can arise out of sheer neglect by the Japanese government, even in the absence of conscious efforts to depreciate the yen, because capital outflows are driven by domestic factors. While we may be unaccustomed to hearing about capital flight from wealthy, politically stable countries, it can happen (and there is anecdotal evidence in Japan that it has begun). The decisions of where to invest are made at the margin based on the likely returns for that investment. If everything in Japan—lack of confidence, low liquidity, low interest rates—disadvantages those investments, the capital will go elsewhere (figure 4.13 shows the rising outflow of even long-term foreign direct investment). The fact that Japan has very little debt held abroad and no foreign-denominated government debt means that more has to go wrong in the Japanese economy before flight would begin in earnest, but it by no means precludes such flight.<sup>23</sup> The target-zone literature tells us that even under flexible

23. Poole (1991, 174) came to the same conclusion discussing the opposite situation of the United States, then and now the world’s largest debtor: “The argument that we will have to pay increasing attention to the exchange market as the amount of foreign-owned capital in the United States rises does not make good sense to me. U.S.-owned capital is just as mobile as foreign-owned capital. Capital flows respond to relative risks and returns; policy

exchange rates, small fluctuations (or perceived nonresponses) by the central bank can produce sharp jumps in the exchange rate.<sup>24</sup>

With the United States and Japan having defended the yen at 140 to the dollar in mid-June 1998, they could well have created a scenario for such a jump if the countries were seen as not defending that rate once it were seriously challenged again after the Japanese upper-house election. If the Japanese financial system is sufficiently fragile that foreign counterparties are withdrawing their funds from it or proving less willing to roll over loans in the interbank market (as can be seen in the “Japan premium” that even large Japanese banks were paying in the late 1990s), then an exchange rate attack and a financial withdrawal would reinforce each other. These will, of course, fuel further capital flight in turn.

Such a rapid fall in the yen would not only occasion trade frictions, it would also be likely to bring about a rapid rise in Japanese inflation.<sup>25</sup> While there are factors that would limit the inflation rise, such as the underutilized capacity in the Japanese economy and favorable shocks to commodity prices from which the entire OECD has benefited, these cannot completely shield an open economy that must pay world prices for a number of inputs and consumer goods. Moreover, even to the extent that yen depreciation contributes to growth by increasing net exports, it does so in a selective way: on the first pass, it harms everyone but stakeholders of equity in the traded-goods sector. Japanese consumers, feeling their purchasing power erode, would likely withdraw more money from the economy, both in hoarding of savings and in capital flight. It would also not be seen as a sustainable restoration of profits and, therefore, of investment expectations, given the political and fundamental reasons for an eventual reversal of the yen’s course. Finally, it would do nothing to stabilize the financial system or to increase deposits to it, because Japan is far from an exporter of financial services.

Most pressing, however, is the conflict between external and internal stabilization that would be engendered by capital flight and yen depreciation. To restore liquidity to the financial system, which is likely to be harmed by disintermediation to abroad and certainly by having ever more bad loans to bear with ever lower equity, the Bank of Japan would have to lower interest rates or increase the money supply. To restore the confidence in the stability of the yen, the Bank of Japan would have to raise interest rates to halt depreciation and close the gap in returns with dollar- and other foreign-denominated assets. The Bank of Japan’s duties as

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constraints [on the United States] have changed little over the last decade [as foreign holdings of treasuries rose].”

24. See Krugman (1991) for a brief summary of these results.

25. The advantages of a *limited and expected* rise in Japanese inflation are discussed in chapter 5.

lender of last resort would be in direct conflict with its commitment to price stability, and it would have only one policy instrument with which to address this dilemma.<sup>26</sup> Clearly, a small inflation is strongly preferred to deflation, especially under conditions of financial fragility, but, as I discuss in detail in chapter 5, it is dangerous to attempt to engineer such price stability (or slight inflation) through exchange rates, which tend to overshoot without a nominal anchor. Moreover, capital that leaves tends to be reluctant to come back unless returns are front-loaded via high interest rates, which adds to the conflict facing the central bank (see Dornbusch 1991).

So, to summarize the downside risks to the Japanese economy, consider the following scenario:<sup>27</sup> The US government makes clear that it will not defend the dollar/yen exchange rate any further without a change in Japanese macroeconomic policy.<sup>28</sup> Before the Japanese government can affect the situation, the credibility of this threat, given the obvious pressures for trade protection, prompts capital flight from Japanese assets. The Nikkei stock index plummets, putting some securities firms that had taken too many risks out of business. Rumors of nonpayment by these collapsed firms lead counterparties of banks associated with those firms to withhold payments from those banks (as collateral in case of payments failure). Even though these were securities firms, lines of depositors begin to form at Japanese banks, visible for all to see, to withdraw their deposits and put them into Postal Savings or dollar-denominated assets abroad. Foreign holders of credits to Japanese banks fear further declines in the yen as a result of the impending capital flight and refuse to roll over loans.

The Japanese government announces the extension of the deposit guarantee of 10 million yen per account to all customers at securities firms, but the announcement (in line with the discussion above) is interpreted more for who it appears to say will *not* be protected. So when the Bank of Japan follows the announcement by making guarantees of liquidity to any major bank, large (nonindividual) account holders such as corporations and anyone doing business with small banks join in the panic. The government's infusion of liquidity is more than offset by the decline in money supply as the deposits go abroad or under the mattress. Under deflation, while most labor and debt contracts remain in fixed nominal

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26. Volcker (1991, 175) states, "[I]n the stabilization crisis, there are no 'right' answers, because the general tools that one uses to deal with the crisis, particularly easing the money supply, may undermine confidence. Further, the international financial repercussions can lead to a depreciation of the [currency] which feeds back to internal inflation."

27. This scenario was inspired by that of Summers (1991) about the hypothetical possibility of an international crisis beginning in the United States through policy mistakes.

28. In the last section of chapter 5, I suggest why such a threatening strategy on the part of the United States is likely to backfire.

terms, this results in a substantial short-run spike in Japanese real interest rates.

Japanese banks left standing pull in their lines of credit. Any liquidity given to them by the Bank of Japan or the Japanese government is invested in Japanese Government Bonds or US Treasuries, given the extreme adverse selection of who is willing to borrow at the prevailing interest rate. Nominal interest rates then rapidly drop, and Japanese financial markets go into wholesale decline. Aggressive lender-of-last-resort action to increase liquidity further decreases the return on deposits, capital flight continues, and expectations for further yen depreciation become entrenched. Government deficits, meanwhile, rise sharply when the downturn becomes severe, unemployment exceeds its historical highs, and there is a collapse in tax revenues. The Japanese government, under the guidance of the Ministry of Finance, calls for extreme fiscal austerity to restore confidence in the Japanese economy and to pay for the various financial infusions. As in 1996 and 1997, fiscal consolidation is anything but expansionary in Japan and, following the pattern presented in chapters 2 and 3, provokes further panic by increasing precautionary saving and lowering confidence in the economic future (as much by government justifications given for the contraction as by the direct impact on growth).

There is, thus, a complete conflict between responding to the liquidity crisis and the currency crisis, between restoring faith in the financial system and restoring faith in the yen. The size of these capital flows and the uncertainties they cause provoke renewed crisis (an understatement) in the rest of east Asia, with capital exiting there even faster than in Japan. World economic growth and stability are imperiled. The only way out of the dilemma would be for foreign central banks, primarily the United States Federal Reserve and the new European Central Bank, to lower their interest rates to encourage capital to flow back into Japan. Stabilization of the currency would allow Japanese monetary and fiscal policy to dedicate themselves to their domestic financial requirements. Whether these independent central banks would be willing to engage in such a coordinated loosening is in doubt, especially because their stock markets had already been rising before being pumped up further by the inflow of funds from the Pacific and because their economies were growing at rates that (at least historically) presaged inflation.

Perhaps this sounds exaggerated, but it is difficult to point to any step in the scenario that is particularly unlikely. The main point, however, is to illustrate the mutually reinforcing nature of the downside risks—confidence, financial, and international—that Japan faces in mid-1998, and to show how preemptive policies today are required because policies in reaction to crisis once it hits may be ineffective or have perverse effects. I offer such a program for sustainable Japanese economic recovery in chapter 5. The potential need for international coordination, should the

crisis get out of hand, should not obscure the reality that such coordination cannot substitute for appropriate changes in Japanese domestic policy. For both Japan and the United States, the discussion should not simply be about what Japan could and should do to return its economy to its potential rate of growth, but why it must do so as soon as possible. Ignoring the downside risks enumerated in this chapter for gradual, supposedly long-term policies or for laissez-faire will be dangerous indeed.