



ELSEVIER

Japan and the World Economy 7 (1995) 249–254

Japan and the
WORLD
ECONOMY

Long-term investment by Japanese and American firms [☆]

Eric S. Maskin ^{*}

Department of Economics, Harvard University, Cambridge, MA 02138, USA

Received March 1994; accepted January 1995

Abstract

A theoretical explanation is offered for why Japanese firms seem to have succeeded better than their American counterparts in making long-term investments.

Keywords: Long-term investment; Credit markets

JEL classification: D21; G31

Why has there been such a dramatic difference between the planning horizons of Japanese and American firms? This is an issue that has captured the imagination of both scholars and the public at large.

Japanese firms have seemingly been able to take the long view in their investments, to have the patience to wait perhaps years before those investments turn a profit. American companies, by contrast, have the reputation for being obsessed by their quarterly earnings, for insisting on a payoff *now*, not five years hence.

The first question to ask about this contrast is whether it is indeed real. If we are to judge from the extent of media attention, it certainly is. The popular press is full of anecdotal evidence that Japanese firms are far-sighted and that American firms are myopic; the *New York Times* (1992), *Business*

[☆] The Journal will publish lectures and short papers by renowned administrators, statesmen and scholars who have influenced economic policy. This paper is one of those series of policy papers.

^{*} Tel. (617) 495-4167, fax (617) 495-7730.

Week (1992), and *The Economist* (1990) have all run feature articles on this subject in the last few years. But, as Krugman (1995) points out, there are plenty of bogus economic issues that somehow command a great many lines of print. Nevertheless, in this case I do not believe that the public is being urged to accept a proposition that no serious economist would subscribe to. There is in fact much in the scholarly literature that confirms the validity of the contrast. For example, the British economist J. Corbett (1987) has assembled persuasive evidence that American firms place a higher premium on short-term profit at the expense of long-term profit than do their Japanese counterparts. She also points to a wealth of data showing important differences between the ways that American and Japanese firms are financed.

Whereas most external finance for the typical American corporation derives from the stock and bond markets, Japanese firms have historically depended more heavily on banks.

This difference in the method of finance appears to have important implications for the way that firms behave. Indeed, Hoshi et al. (1988, 1989) have shown that the more that a firm relies on *bank* finance, the less likely it is to be liquidity constrained and therefore the better able it is to invest for the long-term (compared to a firm that depends on bonds).

It is not hard to find theoretical explanations for why bank finance might work better than the bond or stock market to encourage long-term investment. One notable feature of long-term investments is that they tend to be highly uncertain. This uncertainty means that if you are lending money to someone for a long-term project, it will be comparatively difficult for you to ascertain whether or not the investment is being undertaken properly. You would not face the same order of difficulty in the case of a short-term investment, since the borrower would have to start producing results right away. Now, one thing that banks are pretty good at – or at least better at than bond and stock markets – is *monitoring* their borrowers, i.e., scrutinizing whether the money loaned is being used the way it should. Thus, from this point of view, banks will have a comparative advantage in lending to projects with long horizons (Diamond, 1984).

But if the bank lending system so widely used in Japan is truly superior, how can we explain why something like it has not become widespread in America? Of course, in the U.S. there have been certain legal restrictions on commercial bank lending such as the Glass–Steagall Act. But there are many financial intermediaries besides commercial banks that could have carried out the sort of monitoring I am referring to. In the end, the market is a powerful force for efficiency. If long-term investment is truly more profitable, the burden is on us to explain why a way has not been found to provide the necessary financing.

One proposed answer to this puzzle is that the cost of capital – the interest rate – is higher in America than in Japan. In fact, there is consider-

able evidence that interest rates *are* higher in the U.S. Still, this is not a completely satisfactory explanation. For one thing, it leaves the *reason* for the discrepancy unexplained. Now, here again various stories have been suggested. One popular notion is that the Japanese people are simply more patient than Americans, meaning that their discount rates are lower. I do not know how one would go about testing such a hypothesis. But even if it were true, I am suspicious of any explanation that turns primarily on a discrepancy in interest rates. After all, we live in a world with an active international capital market. It is hard to accept the hypothesis that if a discrepancy in interest rates reflects real differences in investment opportunities, then those differences will not quickly be arbitrated away.

The explanation that I would like to offer is that, even if there were no *inherent* differences between the Japanese and American economies, the two countries might have taken divergent paths. Moreover, once a country started down one of these paths, its direction might have been difficult to alter.

To develop this idea let me offer a very stylized rendition of investment in the American economy – one that is obviously extremely simplified but that, I believe, nevertheless captures something that is real about the nature of the capital market in that economy.

Imagine that there are two sorts of entrepreneurs – talented and untalented. Entrepreneurs have ideas for projects but do not have the capital to finance them themselves. They must therefore make proposals to potential lenders. Let us suppose – as seems reasonable – that an entrepreneur derives a personal benefit from having his project funded. The benefit might correspond, for example, to the perks that he enjoys as a result of the project's being carried out – the status, the company car, and the like. Or, to take a cynical perspective, he may simply be able to divert some of the project's resources into his own pocket.

Untalented entrepreneurs – as the name suggests – have only unprofitable projects to propose. Let me call them “white elephants.” A talented entrepreneur, however, has a choice in the kind of project he can propose; it can be either short- or long-term. Short-term projects can be completed comparatively quickly. They yield a fairly modest return on their capital investment. Long-term projects naturally take longer to complete but hold out the possibility of much higher profitability. As I was suggesting before, long-term projects also demand more monitoring on the part of lenders, reflecting the fact that a long horizon gives an entrepreneur more scope for misusing the funds he has borrowed.

Now the problem that lenders face is that, given all the uncertainties associated with long-term investment, it may be very difficult to distinguish at the outset between a talented entrepreneur's long-term project and an untalented entrepreneur's white elephant. This is an example of what economists call *adverse selection*. The practical implication of this problem is

that a lender in the business of making loans to long-term projects must expect to be stuck some of the time with a white elephant. Of course, if the probability of a white elephant is too high, the loans will not be made in the first place.

Short-term projects, although less profitable, at least have the advantage of being easier to evaluate. To apply the popular computer slogan, “what you see is what you get.” Lenders have comparatively little difficulty in distinguishing between a straightforward short-term project and a white elephant.

Now, let us think of the American economy as comprising all sorts of lenders – investment banks, bond-holders, savings and loans, and so on. Collectively, these institutions have plenty of capital to fund all reasonable projects. Let us suppose though that, for whatever reason, they start down a path in which they make only short-term investments; that is, they refuse to fund long-term projects.

How will entrepreneurs behave in such an environment? Clearly, the talented ones will all choose *short-term* projects. Long-term projects may have greater potential profitability, but if they cannot attract financing, there is no point in proposing them. Short-term projects will at least be funded.

As for untalented entrepreneurs, they will do *nothing*. They could try to get their white elephants funded, but because these can easily be distinguished by lenders from profitable short-term projects, they will not succeed in getting loans.

I maintain that after the economy has started down this path it will be rather difficult to change course. The problem is that once other lenders are making only short-term loans, then it will not pay any single lender to buck the trend and finance long-term projects. To see why this is so, imagine that you were a trend-bucking bank offering long-term financing. You would soon find that *all* the white elephants would be lining up outside your door; they simply would have no place else to turn. This might be all right if you were also able to attract a reasonable number of profitable long-term projects. But consider how a talented entrepreneur would reason. He would say to himself, “Why should I propose a long-term project and compete with all these white elephants for funding. My chances for success must be minuscule. After all, there is just the one lender (with limited funds) making long-term loans, and that lender cannot tell my good project apart from all these worthless ones. Clearly, I’m better off playing it safe and proposing a short-term project, which I know I can get funded.” Thus by sticking your neck out as a lender and making long-term loans, you end up having it chopped off; you end up attracting *only* white elephants. Obviously you are better off following the crowd and financing only moderately profitable short-term projects.

This is the path – one in which only short-term projects are funded – that I think the American economy has taken. Notice, moreover, that, although it may be regarded as a foolish path, *no single agent* – no bank or entrepreneur

– can be accused of foolishness for following along. On the contrary, in the story I have told, everybody is choosing his best course of action given the behavior of others. It is only in a collective sense that the path is irrational.

Now in reality, of course, it would be preposterous to assert that American lenders *never* finance long-term projects. This extreme conclusion emerged from my analysis only because I treated all long-term projects as alike in the sense that *none* of them could be distinguished from white elephants. If, instead, we recognize that *some* long-term projects are reasonably free from the phenomenon of adverse selection, then they could indeed be funded. But as long as there are not very many such projects, my general conclusion still stands.

If one accepts the foregoing analysis of American investment, then the question remains how the Japanese economy has managed to avoid this trap. To try to answer this question, let us imagine exactly the same basic economy as before, only let us suppose now that most lenders *do* make long-term loans. This implies, in particular, that untalented entrepreneurs can get their white elephants financed. But, given that these entrepreneurs can now apply to almost any bank successfully, the white elephants will be spread out over many different lenders. This also means that a talented entrepreneur who applies for a long-term loan will not find a long queue of white elephants at his bank. So his chances of getting the loan are good. And since long-term projects are potentially more profitable than short-term projects, he is better off seeking such a loan than resorting to some quick investment.

To complete the analysis, let us examine the situation from a bank's point of view. We have just argued that talented entrepreneurs will propose long-term projects. Of course, the untalented entrepreneurs will simultaneously propose their white elephants. By assumption, the bank will not be able to tell the two kinds of projects apart. But even if it chooses projects to fund at random, it has a reasonable shot at getting a good project. This is because most of the other banks are also financing long-term projects and therefore will attract many of the white elephants themselves. Furthermore, if the ratio of talented to untalented entrepreneurs in the economy is not too unfavorable, then the bank should find it profitable in expectation to make long-term loans, even though by doing so it faces the risk of funding white elephants.

This second scenario is what I would call the “Japanese path:” lenders are willing to make long-term loans because there are enough talented entrepreneurs choosing lucrative long-term projects to outweigh the white elephants. And talented entrepreneurs are happy to choose long-term projects because they can get them funded.

A natural question to ask about the picture I have drawn is whether anything can be done to change it. Is there, for example, a role for government in moving an economy from an “American” to a “Japanese” path? Well, one thing a government might try to encourage long-term investment is

to subsidize it. And just that sort of subsidization has been proposed in the United States recently in the guise of *industrial policy*, where certain promising industries are targeted for government assistance.

The difficulty with such an industrial policy, if one accepts my analysis, is that it would have to be undertaken on a massive scale to overcome the adverse selection problem that I pointed out. If the government subsidized just a few projects, then it would be in the position of the trend-bucking bank that tried to make long-term loans while everyone else was lending for the short term; it would get stuck with a great many white elephants. Of course, if the government's program were big enough, it might attract sufficiently many talented entrepreneurs into the pool to outweigh these white elephants. But this could well be a huge undertaking and so, given the current taste for minimal government, must almost certainly be politically infeasible.

Thus, there is probably no easy solution to the problem of endemic short-termism. I hope, however, that by having drawn the contrast between the Japanese and American economies I have at least helped illuminate the *nature* of the problem.

References

- Business Week, 1992, Industrial policy: call it what you will, the nation needs a plan to nurture growth, April 6.
- Corbett, J., 1987, International perspectives on financing: evidence from Japan, *Oxford Review of Economic Policy* 3, 30–55.
- Diamond, D., 1984, Financial intermediation and delegated monitoring, *Review of Economic Studies* 51, 393–414.
- Hoshi, R., A Kashyap and D. Scharfstein, 1988, Corporate structure, liquidity, and investment: evidence from Japanese industrial groups, *Mimeo*.
- Hoshi, R., A Kashyap and D. Scharfstein, 1989, Bank monitoring and investment: evidence from the changing structure of Japanese corporate banking relationships, *Mimeo*.
- Krugman, P., 1995, America in the world economy: Understanding the misunderstandings, *Japan and the World Economy* 7, 233–247.
- New York Times, 1992, Economic myopia: obvious problem, hidden causes, February 9.
- The Economist, 1990, Punters or proprietors?: A survey of capitalism, May 5–11.