his type. B knows his own type. We assume that B is actually type II. Suppose that the
denote the probability tha
the second period as $p($
common knowledge. This
how a type-II B will find
tion, that is, to prevent A f

Notice first that N is a
for a type-I B, and that F i
B in the second period. T
behave as a type I in the f
reputation? Consider first,
if A plays N his expecte
plays F his expected pay
$p(2)<3/5$. $p(2)$ is detern
reputation, updated by
conveyed by B's play in p
more sophisticated cases)
reveals himself to be typ
formative. So if B plays I
then $p(2)=1$. B actually
his reputation and reveal
this depends crucially on $p(1)$ and q. Let $p(1)<3/5$, otherwise there is no incentive at all for B to maintain his reputation. Consider now B's expected payoffs for the two periods. If B plays {F(1),F(2)} he receives $4+2q$ (this assumes A plays N in period 1, which will be established shortly). If B plays {N(1),F(2)} he obtains $3+4q$. It follows that B will choose to preserve his reputation if $q<1/2$. Finally, to establish that {N(1),F(2)} is indeed an equilibrium strategy for B we need to show that {N(1),N(2)} is an optimal strategy for A. This is obvious, since we know that N(2) is optimal if $p(2)<3/5$, while N(1) is a best reply in period 1 as both type-I and type-II Bs will play N(1).

This example illustrates the idea of reputation as a probabilistic belief held by one agent about another and updated to incorporate any information conveyed by repeated interaction between the two. There are several variants on this basic idea. A may be able to infer something about B from B's interaction with a third agent C. Alternatively B may interact with a sequence of As. Reputation need not be established directly with the agent with whom the game is currently being played.

The notions both of reputation as a belief and reputation as an asset have found application in many areas of economics. Kreps (1990) discusses many microeconomic applications, while Rogoff (1987) and Blackburn and Christensen (1989) discuss many of the implications of reputation in macroeconomics.

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See also ASYMMETRIC INFORMATION; CHEAP TALK ABOUT MONETARY POLICY; COMMON KNOWLEDGE AND FINANCIAL MARKETS; DIFFERENCES OF OPINION; GAME THEORY IN FINANCE; INTERNATIONAL POLICY COORDINATION: GAME-THEORETIC PERSPECTIVES; PRISONER'S DILEMMA; REPUTATION, INCENTIVES AND MANAGERIAL DECISIONS.

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2.

reputation, incentives and managerial decisions.

> Good name in man and woman, dear my lord,
> Is the immediate jewel of their souls;
> Who steals my purse steals trash; . . .
> But he that filches from me my good name
> . . . makes me poor indeed.
>
> (Iago, *Othello* III, ii)

A manager's reputation, defined as the market's assessment of his ability, is important for his pay and prestige. Firms also have reputations for competence and profitability which affect their ability to raise capital and conduct business.

If a manager has private information about what action maximizes shareholder value, or if shareholders cannot observe his actions, then he has latitude to follow policies that hurt shareholders but (at least temporarily) improve his own reputation. For example, a manager may introduce a new product prematurely, if its appearance will reflect well on him. Similarly, a firm may follow policies that temporarily improve its reputation in order to exploit prospective investors or customers.

This essay is concerned with actions that are motivated by a desire to influence perceptions about a manager or firm, and in particular, with reputational effects on investment and operating decisions. For our purposes, the term 'reputation building' is more appropriate than 'signalling', the latter term having two strong connotations that restrict its applicability unduly. First, a 'signal' is a visible action, while reputation can be affected by hidden actions with visible consequences. Second, even a visible decision (such as a takeover bid) may be based on value as well as reputational considerations.

SOURCES OF REPUTATION-BUILDING INCENTIVES

A manager makes a decision at date 0 (such as whether to

undertake a project). At date 1, public information may arrive that affects the market's valuation of his firm and his personal reputation. At date 2, the firm pays a liquidating dividend to its stockholders. The manager (or his firm) may be of higher or lower quality, with the type unknown to outsiders.

In such a setting, a desire for prestige or higher pay may lead a manager to sacrifice the firm's interest to enhance his short-run reputation. And, even in current shareholders' interests, managers may act to raise the stock price of possible sales of securities are foreseen, either by security-holders or by the firm (see Harris and Raviv 1985, Thakor 1990).

To avoid these adverse incentives, a manager could be paid based only on long-term performance, not short-term reputation (Dybvig and Zender 1991). But this ideal outcome will seldom be achieved. First, since a manager's potential alternative employers cannot fully distinguish between his true achievements and the temporary appearance thereof, reputation-building in the short-run may improve his marketability and power to negotiate high pay. Second, a manager may have limited ability to borrow on lifetime wealth prospects, so that early compensation based on interim performance is highly valued.

The present discussion does not focus on designing contracts to deal with reputational incentives. Generally, based on the above discussion one would expect that compensation schemes could be designed to mitigate reputational problems partially, but not perfectly (e.g. Hagerty et al. 1990).

TYPES OF REPUTATIONAL INCENTIVES AND DISTORTIONS

TYPES OF BIASES. Reputational incentives may bias managerial decisions (cause them to depart from maximization of the underlying value of cash flows) in three main ways. The first two ((1) and (2) below) are closely related, being based on different ways of altering the information directly conveyed by news events. The third is based on imitation of others' actions.

(1) *Visibility bias*. For a given timing of news arrival, a manager may want to 'paint the apples red', that is, increase the favourability of more visible events, such as early news reports, even at the expense of an equal decrease in the favourability of permanent performance.

(2) *Resolution preference*. For a news report or visible event of given favourability, the manager may have a preference for advancing or deferring its date of arrival. (The manager's private information about the event may be imperfect.)

Resolution preference arises from two main sources: (i) private information timing – a manager will wish to shift a likely-favourable resolution event earlier in time and to defer a likely-unfavourable resolution event; and (ii) risk avoidance – if a manager is risk averse, he will wish to defer an uncertain resolution event, so as to be evaluated at the intermediate level based on employers' prior beliefs about his expected ability, rather than on the good or bad news that will arrive later.

(3) *Mimicry and avoidance*. If a high-quality firm takes an action, a low-quality firm can try to mimic. Consequently, a high-quality firm may be led to exaggerate certain actions that are difficult or costly for low-quality firms to mimic. For example, if high-quality firms have better investment opportunities than low-quality firms, then all firms may overinvest in order to avoid adverse perceptions (Trueman 1986). While such incentives are strongest for visible actions, indirect mimicry of hidden actions will also occur to the extent that the consequences of the action (e.g. early favourability, or early versus late resolution of uncertainty) are visible.

RELATIONS AMONGST DECISION BIASES. The effects of biases discussed above interact in several ways. Mimicry ((3) above) can modify the operation of visibility bias ((1) above). For example, suppose that high-quality firms can provide hidden service to customers more effectively than low-quality firms. Visibility bias encourages hidden cutbacks on service in order to boost current cash flows. However, if customer dissatisfaction sometimes becomes public, then a high-quality firm may maintain customer service to distinguish itself from a low-quality firm, and a low-quality firm may maintain customer service in order to mimic a high-quality firm.

Resolution preference can cause either advancement or deferral of resolution of uncertainty ((2i) above). 'Even a fool, when he holdeth his peace, is counted wise' (Proverbs 17:28). So a wise manager, one whose investments are usually successful, can afford an early public resolution of the outcome of his decisions; a foolish manager, whose projects frequently fail, is better advised to choose projects whose outcome will remain in doubt longer. But this motivation also interacts with mimicry. Since a high-quality firm is more prone to advance resolution than a low-quality firm, the very fact of late resolution becomes an adverse indicator of quality. Thus, a low-quality firm has an incentive to mimic by also advancing resolution.

Suppose, however, that there is noise in resolution timing, so that even a high-quality firm that tries to advance resolution sometimes experiences late resolution. Then a low-quality firm can intentionally defer resolution without exposing itself as low-quality. Noise therefore eases the pressure to mimic, so that a low-quality firm's preference for deferred resolution can be effected. Thus, the biblical directive for investment policy discussed above retains a degree of validity (Hirshleifer and Chordia 1991). For example, a firm can accelerate its R&D activity to complete development of a profitable new product, and prolong development of a mediocre product. Consistent with this reasoning, there is a positive average stock price reaction to new product introductions (Chaney et al. 1991). This suggests that on the margin there is a reputational incentive to introduce new products prematurely.

Resolution can be advanced by hiring a good auditor, or by undertaking projects whose outcomes depend primarily on quality rather than on environmental noise. For example, the manager of a high-quality firm will be willing to pay more for a precise audit than a low-quality firm, implying that the firm's quality is revealed by the choice of auditor (Titman and Trueman 1986).

The introduction of a foreseen new product advances resolution of uncertainty about the product, so that conventional product development expenditures probably advance

resolution. In contrast, basic research on visionary projects corresponds to deferring resolution. The market will view managers engaging in visionary projects sceptically, and hence firms will underinvest in fundamental research from the viewpoint of shareholders. Resolution preference also implies a mismatch between managerial talent (or the firm's quality) and projects. High-quality managers or efficient firms seize conventional, early-resolving projects, leaving fundamental innovation for low-quality managers or firms. This sorting implies superb execution of minor changes and monumental blunders in visionary undertakings. ('You can tell pioneers by the arrows in their backs.') Since we normally expect managerial ability to be complementary with the advance represented by the project, these incentives are perverse.

APPLICATIONS

CASH FLOW TIMING. *Hidden action: signal jamming.* Since cash flows are relatively observable, and (*ceteris paribus*) high quality tends to increase cash flows, hidden actions that increase cash flows tend to improve a manager's reputation. This can lead to a bias towards increasing early cash flows at the expense of corporate fundamentals ('painting the apples red'), that is, forward time preference (Narayanan 1985).

The stronger the tendency to advance cash flows, the more reliable is the current cash flow as an indicator of future prospects. Thus, a firm that has frequent transient shifts in cash flows is less prone to advance cash flows than a firm with highly uncertain long-run prospects (Stein 1989).

Visible actions: latent assets. If the action that affects cash flows is visible, outsiders can accurately attribute a high cash flow to the manager's action, eliminating the 'painting-the-apples-red' incentive to boost early cash flows. However, resolution timing incentives can favour advancing the date of cash flows.

Consider a firm with a gold mine with private information about extraction costs, and suppose that extraction is an all-or-nothing decision. A firm with low extraction costs possesses a *latent asset* (Brennan 1990), which it can realize by extracting its gold early. Its high net cash flows will improve its reputation by resolving uncertainty about its costs. Conversely, one might expect a firm to conceal high costs by delaying extraction excessively. However, at any given date, a firm will extract if it has the lowest cost possible given that it chose not to extract earlier. Thus in equilibrium extraction is good news, so each firm type, at the time it extracts, is biased in favour of early resolution. So all firm types extract too early (Brennan 1990). This is a mimicry-avoidance phenomenon, in that a low-cost firm extracts early to separate itself from a pool of inferior firm types.

Takeover threats, being a source of a firm's concern for reputation, will lead to early realization of latent assets, that is, disinvestment (Stein 1988). Critics of hostile takeovers have argued, accordingly, that the threat of takeover deters innovation and investment.

Short-termism versus long-termism in cash flows. Reputational effects can also lead to a bias toward the long rather than the short run, however. Consider a visible long-term investment decision (i.e. the initiation is visible, even if the ultimate payoff is not yet known). The act of investing can improve reputation, by communicating favourable information about the firm's investment opportunities (Trueman 1986), managerial ability (Hirshleifer and Chordia 1991), or available cash. Stock prices do, on average, react positively to the announcement of capital expenditures (McConnell and Muscarella 1985). Similarly, increases in R&D expenditures lead, on average, to high stock returns (e.g. Woolridge 1988). Reputation-building therefore seems to imply excessive visible capital investment and innovative activity.

There is some evidence consistent with the common view that institutional shareholding pressures firms to maintain a high stock price (Lang and McNichols 1991). If so, then Hansen and Hill's (1991) evidence that higher institutional ownership is associated with greater R&D expenditures is consistent with reputational effects causing long-termism rather than short-termism in cash flows.

R&D expenditures sometimes advance the resolution of uncertainty about the success of new products or other innovations. Since high-quality managers or firms have a stronger desire to advance resolution of uncertainty, the announcement of R&D activity that advances resolution, by revealing high quality, can be good news for investors. This favourable reputational effect will lead managers to overinvest in such R&D (Hirshleifer and Chordia 1991).

The limited available empirical evidence opposes the view that takeover threats lead to visible short-termism (e.g. reducing reported R&D expenditures). As might be expected, firms that adopt anti-takeover charter amendments ('shark repellents') have a lower probability of takeover than non-adopters (Pound 1987). After adoption such firms decrease R&D spending, suggesting that takeover threats cause long-, not short-termism (Muelbroek et al. 1990).

There are at least two reasons why reputational incentives may lead to forward time preference. First, signal jamming and latent assets models assume that high or low cash flows are associated perfectly with favourable or unfavourable resolution of uncertainty. In reality, actions that shift cash flows also often affect the arrival of other types of information, as with the example of spending more to accelerate the introduction of a new product.

Second, managers often have imperfect control over the date of information arrival and imperfect knowledge of how favourable the news arrival will be. This is particularly true for innovative projects, which tend to have greater noise in resolution timing. Thus, as argued earlier in the section on relations among decision biases, a low-quality manager or firm may defer resolution of uncertainty, hoping to be mistaken for a high-quality manager forced into late resolution by external circumstances. Deferring resolution of uncertainty can take the form of undertaking long-term rather than short-term investment. This suggests that CEOs who demand shark repellents in order to focus on visionary long-term goals are often washouts who deserve the sack; but they may also be good guys.

Project initiation and termination. Resolution can be deferred by means of radical shifts in the firm's strategy, such as fundamental innovation, global diversification, and exploitation of synergies through takeover. An acquisition for

purposes of large strategic shifts, such as globalization, diversification, or the exploitation of far-reaching synergies, can make it harder to evaluate a manager's record early (in contrast, e.g. with a bust-up takeover). The tendency of low-quality managers or firms to defer resolution of uncertainty implies a negative average bidder stock price reaction to the announcement of deferral of resolution. This is consistent with a large body of evidence of low returns to bidders in takeover contests. It is also consistent with evidence that the returns to bidding shareholders are lower when their firm diversifies and when it buys a rapidly growing target (e.g. Morck et al. 1990). These actions are likely to be associated with momentous shifts in the bidder's strategy, and thus with deferral of resolution.

Avoidance of projects that resolve uncertainty can also derive from aversion to risk (see point (2ii) earlier). Risk aversion leads to a managerial compensation contract that protects the manager on the down-side. Given this protection, an optimal contract may render the manager either too reluctant or too eager to undertake a project. Superiors may counter the overinvestment propensity of subordinates by rationing capital (Holmstrom and Ricart i Costa 1986). (Even with risk neutrality, the resolution preference and mimicry effects discussed earlier can lead to capital rationing; see Bethel 1990.)

A similar analysis could be derived in which the manager's recommendation concerns a long- versus short-term project. If the long-term project has both later cash flows and later resolution of uncertainty, then an unprotected manager will prefer the long-term project. Thus, risk aversion, by causing resolution aversion, can lead to long-termism as well as short-termism in cash flows.

Private information about project quality can also deter managers from undertaking projects. Suppose that the likelihood of a project's success depends on the manager's quality and on the project's quality. For a project that is only barely worth undertaking because failure is rather likely, outsiders, thinking that the project might be excellent, will on average draw an unduly negative inference about the manager (Holmstrom 1982).

Reputational effects are potentially as important for the termination as for the initiation of a project. Terminating a project could reveal that the manager demonstrated poor judgement in undertaking it, implying that managers will generally escalate bad projects excessively (Kanodia et al. 1989). Or, it may reveal that the manager has a better (mutually exclusive) project available (Boot 1990).

RISK SHIFTING. Reluctance to undertake risky projects (discussed earlier) is a form of excessive risk avoidance ('conservatism'). A further reason for conservatism is that for many types of investment decisions, a complete failure becomes evident early, while the ultimate extent of a success may not be immediately apparent. For example, a pharmaceutical firm may simply fail to develop a new drug, or its product may be rejected by regulators. Even if these preliminary initiatives are successful, there still remains considerable uncertainty about the demand for the drug and its profitability.

An asymmetry between early resolution of the fact of bad news and late resolution of the degree of good news frequently arises from the option to terminate. Early bad news leads to project termination and a low profit level. Early arrival of good news, on the other hand, leads to continuation of uncertainty about the ultimate payoff (Hirshleifer and Thakor, forthcoming). Alternatively, for a debt-financed entrepreneur, the fact of debt default is bad news while meeting debt obligation does not reveal profits (Diamond 1989). Such asymmetries give a manager a reputational incentive to switch to 'safer' projects (lower probability of early visible failure), even at the expense of lower profits.

In a levered firm, such reputational incentives can draw the firm's investment choices closer to the interests of bondholders rather than shareholders. This can mitigate the risk-shifting agency problem between debt and equity. This implies that firms that are subject to takeover threats (and thus have strong incentives to maintain reputation) will have high debt levels – even when debt is not used as a takeover defence.

A firm can also reduce risk through financial hedging. A manager who is averse to risk about his reputation will hedge through the firm, if outsiders cannot observe the firm's risk-exposure and its hedging gains or losses are aggregated with other revenues. Such hedging can be beneficial to shareholders, since hedging makes profits a more accurate indicator of the manager's ability (DeMarzo and Duffie 1991).

CONFORMIST AND DEVIANT BEHAVIOUR. A manager's reputation will depend on how his firm's profits and policies conform with those of the industry. For example, if a bank loses money lending to a poor country, its manager's reputation may be harmed less if other banks have made similar loans. Suppose that managers do not know their own abilities. High-ability managers observe informative signals about whether a new investment is desirable (e.g. banks deciding whether to lend to a less-developed country). Valid signals will generally be correlated across managers. In contrast, suppose that low-ability managers observe pure noise. Then if a manager deviates from what others do, he is perceived as quite likely to be of low ability (Scharfstein and Stein 1990). Such 'herd behaviour' by financial analysts can lead to earnings forecasts that reflect recent information insufficiently (Trueman 1992).

A different argument is based on invisible actions and visible profits. Suppose that managers know their own abilities, and choose between the standard project, which involves a common risk, and an innovative project that is uncorrelated with the industry standard. If he is evaluated in comparison with other managers, then a very bad manager is likely to be fired if he undertakes the standard project, so he gambles on the innovative project. A medium manager who selects the standard project is likely to be retained. An excellent manager can innovate and still be confident of beating the industry benchmark (Zwiebel 1990).

While managerial reputation can explain conformism, it is hard to distinguish reputational effects from those of alternative theories. One alternative is informational cascades, in which individuals rationally ignore their own information signals because these are outweighed by the information conveyed by the actions of previous decision-

makers. The cascades theory predicts fads, that is, fragility of mass behaviours (Bikhchandani et al. 1992); in contrast, analyses of reputation-based conformity predict excessive stability. Thus, reputation effects probably do not fully explain booms, panics and takeover waves.

CONCLUSION

A wide range of managerial behaviours can be understood in terms of the manager acting to build his reputation or that of his firm. This can lead to distortions in the undertaking and termination of projects, the degree of conservatism, the timing of resolution of uncertainty and of cash flows, and conformist versus deviant behaviour. A greater understanding of reputational effects is important both to explain the behaviour of firms, and to devise contracts and organizational procedures to motivate efficient policies.

A lesson of the research discussed here is that the effects of managerial reputation-building depend critically upon a number of circumstances: the risk aversion of the manager, his appraisal of his own ability, whether the action taken is observable, how soon the consequences of the action will become apparent, and the menu of alternatives available to the manager. Theoretical and empirical research taken as a whole does not provide much support for the widely-expressed views that managers, out of concern for the stock price, are too conformist, conservative and myopic with respect to cash flows. Indeed, reputation-building can lead to the opposites of these effects. Much more empirical work is needed to delineate the conditions under which the different kinds of effects occur.

Given the varied nature of these effects, it is useful to draw some general conclusions about the effects of reputation-building. First, undertaking a visible investment tends to be a favourable indicator of managerial and firm quality, implying that managers will tend to exhibit deferred time-preference (excessive long-termism in cash flows). However, the reputational consequences of the outcome of the investment are sometimes favourable and sometimes adverse, which can lead to either forward or deferred time-preference. Furthermore, the characteristics of the project chosen can either exceed or fall short of expectations about the projects available to the firm. Second, managers will tend to exhibit forward time-preference in converting latent assets into observable cash flows; but may defer cash flows, if resolution of uncertainty is only imperfectly tied to the manager's action. Third, high-ability managers and managers of good firms will tend to favour projects whose uncertainty will be resolved early more than low-ability managers and managers of bad firms. Fourth, managers will sometimes be too conservative and sometimes too aggressive; early visibility of failure conduces to conservatism. Fifth, managers will sometimes be too conformist and sometimes too deviant; private knowledge of the manager's ability tends to promote deviance.

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See also AGENCY; AGENCY COSTS; CORPORATE FINANCE; CORPORATE GOVERNANCE; CORPORATE OWNERSHIP AND MANAGEMENT; DEBT RENEGOTIATION; EXECUTIVE STOCK OPTIONS; REPUTATION; TAKEOVERS.

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rescheduling of sovereign debt. In the periodic external debt-servicing crises during the 19th and 20th centuries, a rapid expansion of cross-border lending has typically ended suddenly due to a change in the borrowers' perceived ability to repay, and has been followed by a protracted period of negotiations between creditors and sovereign borrowers. However, the debt resolution techniques that were employed to help resolve the crises differed due to differences in the principal lending instruments, financial institutions, and legal arrangements used in each period (Eichengreen 1989; Eichengreen and Portes 1986; Feldstein et al. 1987; and Folkerts-Landau 1985).

The most recent payments crises, which emerged in 1982 when Mexico indicated that it could not fully service its bank debt, followed a period between 1973 and 1981 when the external debt of developing countries, excluding major oil-exporters, increased five-fold to reach $650 billion. Since external bank debt made up more than three-quarters of the total external debt of developing countries at the end of 1981, widespread debt-servicing difficulties created the prospect not only of disruptions in the flow of imports to developing countries but also of bank failures and disruptions in the international financial system.

THE INITIAL APPROACH: RESCHEDULING ON MARKET TERMS. One key element in the coordinated effort by the debtor countries, official and bank creditors, and international financial institutions to deal with this external debt-servicing crisis was the use of multilateral, multi-year debt rescheduling (MYRAs) covering amortization payments on medium-term and long-term debt, together with arrangements ensuring the maintenance of short-term credit lines. Such restructuring usually involved the rolling over of short-term debt – trade-related, interbank and money market facilities – into medium-term debt; the restructuring of principal payments over a multi-year horizon, which often combined a lengthening of repayment periods and a grace period for the repayment of principal; and the maintenance of spreads and fees similar to those on the original debt. Although banks were willing, in some cases, to reduce the interest rate on existing loans, interest payments on bank debts were excluded from rescheduling in almost all cases so as not to impair unduly further access to capital markets. Formal restructurings of trade credits and interbank lines were also avoided. Furthermore, bonds and floating rate note debt were generally excluded from rescheduling agreements (International Monetary Fund 1986).

The restructurings were typically connected with adjustment programmes supported by the International Monetary Fund and concerted bank lending packages involving an equiproportional increase in bank exposure to a restructuring country. Concerted 'new money' packages were viewed as raising a country's future debt-servicing capacity through increased investment and as limiting the free-rider problem created by a *pari passu* or sharing clause in syndicated loan agreements, which required that debt-service payments be disbursed to syndicate members in proportion to their share in the original loan syndicated. Such new money was typically made available on market terms. At this stage, techniques that would have limited interest payments or reduced principal were viewed as undermining future borrower access to bank credit and as damaging the international banking system.

During the period 1983–5, 52 bank debt reschedulings were negotiated involving a total of $215 billion of bank debt (out of a total of $500 billion bank debt), being supported by $33 billion of concerted lending. About $104 billion of short-term debt was converted into medium-term loans (International Monetary Fund 1987–91).

To better reconcile the interests of debtors and creditors, the restructuring agreements concluded in the late 1980s employed a diverse menu of financing instruments. For example, Mexico offered to exchange bank claims for 20-year bullet repayment bonds which carried a spread of 1 5/8 over LIBOR and whose principal repayment was guaranteed by US Treasury zero-coupon bonds. These bonds traded at a smaller discount in the secondary markets than bank debt claims as a result of the collateralization of the principal (Folkerts-Landau and Rodriguez 1989).

THE MODIFIED MENU APPROACH: RESCHEDULING CUM DEBT REDUCTION. Although the initial approach to the current debt crisis prevented a major disruption of the international financial system, it proved increasingly difficult both to sustain a flow of financial resources to indebted developing countries and to maintain cohesion among commercial banks. Concerted lending fell from $41 billion during 1983–6 to $10 billion during 1987–9 (International Monetary Fund 1991). The willingness of banks to participate in new money packages was eroded by differences in bank exposure to various countries, bank loan loss reserves against nonperforming sovereign debt, and banks' domestic currency finance in debtor economies. In addition, the development of large discounts on the secondary market for developing country external bank debt made it increasingly difficult for bank managers to justify providing new money at the historical spreads above LIBOR.

These factors led to a new approach focused on debt reduction through such techniques as debt–equity