Predicting the Future: the Economic Goals of Government in Turbulent Times

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"It's the Economy, Stupid." President Clinton's brash campaign slogan pinpointed the reality that societal health is dictated in large by economic factors. Thus, any discussion of "State and Society" necessarily reduces to a discussion of "Government and Economy."

To ensure citizen and business prosperity across economic sectors, the government must assume the role of consultant. Though advocating a government role in prediction and information provision may at first seem like a simplistically laissez-faire approach to a difficult problem, a deeper analysis shows that the government in such a situation would be doing what governments have always done best: filling a void which the private sector is unwilling or unable to fill.

One gaping chasm in the economic-societal landscape is the lack of accurate predictions of financial stability, leading to overall volatility. Even massive companies which have built up years of trust and name recognition are not immune to crisis, but are often prone to deny or cover the symptoms of impending failure. It is into this gap that governments must step, using their mass, influence, and resources to collect and analyze data, making the results available to industry. Speculation grows in the absence of knowledge, and the more knowledge the government can provide, the less volatility the markets will experience, and the more prepared individuals and businesses in related fields will be to handle the results of any unavoidable failures.

Foreseeing Crises

The most destructive financial crises of recent years involved sudden, sharp capital flow reversals that caused havoc. To forestall such crises in the future, governments must make a major effort to assess the vulnerability of constituents on all levels to changes in external circumstances, from vulnerability of key industries to vulnerability of businesses to vulnerability of individual workers. Government's goal is to help industries, companies, and individuals become more resilient to shocks from abroad and within, particularly by encouraging them to strengthen their financial systems in the widest sense and by improving advance information about possible trouble so that they can take preventive action.

To strengthen the assessment of risk in the financial system, governments must conduct health checkups of financial sectors with the aid of national and regional experts. Governments must also assess and report on adherence to standards and codes, including those on corporate governance, accounting standards, data dissemination, and the transparency of fiscal and monetary policy. Adherence to such standards ensures the availability of valuable information that enables governments to address weaknesses and helps markets to price risks more accurately.

With crises occurring more frequently, becoming more complex, and unfolding more rapidly than in the past—because in the New Economy all economic sectors are susceptible to rapid capital outflows—and with a greater risk of spillovers, systems must be put in place to strengthen the ability to identify vulnerable emerging markets and industries. The systems should focus on exposure to international capital markets as well as on those whose own vulnerabilities could have an impact on other industries. It should enable governments to give better advice to these businesses and industries on avoiding trouble and to forewarn other businesses so that they can build firewalls in case a crisis still strikes—because even when weaknesses are identified and a high risk of crisis is assessed, businesses cannot or do not always take all the measures necessary to prevent it.

Economists must use a number of analytical inputs to identify weaknesses, including the three discussed below—Early Warning Systems (EWS), liquidity analysis, and market information.

Early Warning Systems

Econometric models known as Early Warning Systems (EWS) can be used to predict crises—defined as a sharp stock value depreciation or loss of capital reserves or both—before they occur. These EWS models focus on external volatility and exploit systematic relationships apparent in historical data between variables associated with the buildup to crises and the actual incidence of crises. The variables include the ratio of short-term debt to capital, the extent of value to earnings appreciation relative to trend, and the overall debt. Both theory and evidence suggest that the higher the value of each of these variables, the greater the probability of a crisis. Extensive tests have been performed to determine which of these empirically based models best fits the data and is the most robust.

The private sector models, produced chiefly by investment banks, have time horizons of less than one year, because the aim is to guide short-term investment decisions. Among alternative models, one could focus on balance sheet variables, notably for the financial and nonfinancial corporate sectors, or focus on fiscal variables estimated with quarterly data.

As might be expected, EWS models are imperfect tools. They often produce false signals predicting crises that do not occur and missing crises that do occur. However, they do provide useful information. One ex post assessment conducted in 2002 of the predictive power of the core EWS model showed that when the model signaled a bankruptcy (that is, when the estimated probability of bankruptcy was above the threshold for calling a bankruptcy), a bankruptcy occurred 22 percent of the time; when the estimated probabilities were below the threshold, a bankruptcy occurred only 8 percent of the time.

The advantage of the models is that they systematically and objectively describe the historical relationship between variables associated with the buildup to crises and the crises themselves. This is also their disadvantage: they attempt to fit all industries and crises into one box while ignoring the huge amount of information that cannot be easily measured. Another weakness of the approach is that, because it focuses on crisis prediction, it does not easily yield management prescriptions for a vulnerable company.

Governments should use EWS models as only one indication of a problem, not only because of the occurrence of false signals, but also because different tools provide different signals, and policy prescriptions depend on the analysis of the volatility. The prescriptions vary widely depending on the exact diagnosis of a company's difficulties. For example, a company suffering from an aggravated risk of external volatility is not necessarily at risk of defaulting. Because of the models' limitations, other diagnostics of the potential for crises need to be closely examined as well.

Liquidity Analysis

Lack of a liquidity buffer is a key predictor of the likelihood of bankruptcy. Cash on hand, the main such buffer for most companies, can drop precipitously because of a decline in access to venture capital. Such a decline can be caused by investors' doubts about the validity of internal company policies, such as fiscal sustainability, or by a decrease in their appetite for emerging market risks in general because, for example, of negative market factors.

In these circumstances, it is important to have some estimate of the company's external financing needs, including short term debt and debt obligations maturing in the period ahead; as well as those financing sources that are more or less assured, including previously secured venture capital, market borrowing in the form of bonds and loans already secured, and official financing. Such data must be systematically collected and summarized in financing requirement tables, which also provide a cross-check on nationwide financing needs and allow an assessment of the size of possible demands for government resources.

Empirical studies have found that a ratio of short-term debt to reserves of one (roughly, a cushion of reserves equal to one quarter's debt repayment) is an important benchmark that companies should watch closely. This benchmark has therefore become a starting point for much liquidity analysis. But a host of other factors need to be taken into consideration as well (for example, through stress tests), such as short term debt, the quality of debt management, overvalued stock prices, secure forms of financing, and additional risks.

The reserve adequacy analysis discussed here is a close complement to the analysis of whether a company's debt is sustainable. While the reserve adequacy analysis focuses on the liquidity risks, the debt sustainability analysis focuses on solvency or repayment risks.

The indicators selected to highlight a company's state of affairs are based on (1) analytical methods (including balance sheet analysis) and (2) empirical models that focus on different aspects of vulnerability.

Feeling the Market

Another type of vulnerability assessment is based on market information. Financial institutions in the private sector invest a lot of resources in making their vulnerability assessments as accurate as possible. These assessments focus on *repayment* risks, rather than the *risks of bankruptcy* or *stock market volatility* that are the focus of the EWS models or the more policy-oriented assessments of liquidity and debt sustainability. Indeed, the bond market and credit ratings, in essence, both reflect repayment risks.

Governments must not only closely monitor this information, but also analyze the features of companies that markets weigh most. For example, junk bonds, especially when combined with inverted yield curves, may signal the markets' expectation of an imminent default.

Predictions

We should not be surprised that crises are still, by their nature, hard to predict with confidence. Niels Bohr commented that "It is difficult to predict, especially the future." Bankruptcies and defaults are difficult to predict for the very reason that management may take action to avert bankruptcy once risks are apparent; another is that bankruptcies are often precipitated by unexpected shocks that can also derail crisis-prevention efforts. The recent failure of Sabina is a prime example. Moreover, the perceptions of market participants can determine whether a vulnerable company "goes over the edge," and these market perceptions are themselves hard to predict with confidence. Using the analytic inputs described above, governments can look at vulnerabilities and policy prescriptions from a number of different angles and attempt to improve the ability to predict and head off crises.

Foreseeing crises is, of course, only one role governments must take to protect societal stability in the face of increasing vulnerability. But, as part of the overall picture of governmental function in the Information Age, it is one of the most vital. If governments are willing to change long-standing paradigms, the volatility which now surrounds us will soon become but a footnote in the history books.