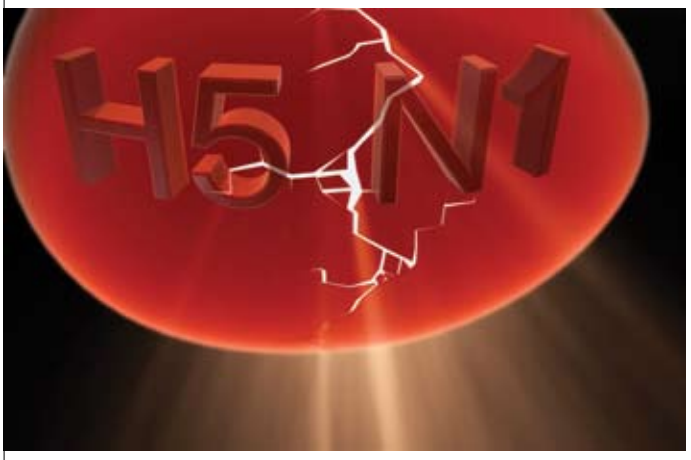
Before the Pandemic
Planning for Business Continuity

THE BUSINESS COMMUNITY IS "NOT ADEQUATELY PREPARED" for a possible avian flu pandemic, says Secretary of Health and Human Services Michael Leavitt. As of July 24, 2006, there have been 231 confirmed cases in humans resulting in 133 deaths (a mortality rate of 57 percent). According to the World Organization for Animal Health, the virus has spread to 33 countries through wild migratory birds that have now infected domestic poultry.



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An influenza pandemic could sideline 40 percent of the workforce, shut down foreign trade, and degrade public services. According to an International SOS survey of 200 *Fortune* 500 companies and other large organizations, 91 percent of the respondent companies consider preparedness for avian flu "important, very important, or critical." Only 26 percent, however, have begun to implement a pandemic preparedness plan, and just 1 percent have completed a plan.

Complexity and Criticality

In his book *The Collapse of Complex Societies*, Joseph A. Tainter says: "Human societies and political organizations, like all living systems, are maintained by a continuous flow of energy… More complex societies are more costly to maintain than simpler ones, requiring greater support levels per capita."

Economic interactions, once conducted locally, are today conducted worldwide with a speed that is almost hard to conceive. The worldwide economy is so interdependent that an event such as a pandemic could send shock waves reverberating through it. Restarting the world economy would be an unparalleled undertaking. In the recent past, we've seen 20 of the world's biggest economies in some phase of recession. These economies account for 60 percent of the world's output. World trade growth, which held up throughout both the world recessions of the early 1980s and 1990s, fell 12 percentage points in 2001.

How long will the pandemic be underway before it's declared a pandemic? Experts at the World Health Organization (WHO) and elsewhere believe that the world is now closer to another influenza pandemic than at any time since 1968, when the last of the 20th century's three pandemics occurred.

Currently, it takes four or five days for the symptoms of H5N1 to send a patient to the hospital. During that time, the virus is highly contagious and can spread rapidly. Sampling, testing, and diagnosis also take time. The current window for intervention is 10 to 14 days. "We're not going to know how lethal the next pandemic is going to be," a WHO spokesperson said, "until the pandemic begins."

How does one begin to plan for the pandemic? The answer involves more than planning to respond just to the medical aspects of the pandemic. One's methodology matters as much as the answer itself. As businesses begin their planning, they'll need to choose the proper methodology and correct focus.

The WHO uses a six-phase pandemic alert system to inform the world of the seriousness of the threat and the actions that should be undertaken. The world is presently in Phase 3: A new influenza virus subtype is causing disease in humans, but is not yet spreading efficiently among humans.

There are three elements to a pandemic. First, a virus emerges from the pool of animal life that has never before infected human beings, meaning that no person has antibodies to fight it. Second, the virus has to make us seriously ill. Third, the virus must be capable of moving swiftly

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from human to human through coughing, sneezing, or even just a handshake.

For avian flu, the first two elements are already with us. Well over half the people who have contracted it have died. The question now is whether the virus will meet the third condition: mutating so it can spread rapidly from human to human.

A Possible, Plausible, Pandemic Economic Scenario?

The following hypothetical scenario is presented to highlight potential consequences of a pandemic. It's designed to illustrate as well as stress the need for cooperation between public- and private-sector entities. Private-sector entities also need to cooperate among themselves, not only in responding to the pandemic (the tactical level) but in addressing the longer-term consequences of a pandemic (the grand tactical level) and its aftermath (the strategic level). The scenario unfolds over a period of 500 to 800 days, the relative time frame for previous pandemics.

Phase 1: Shock and Awe—Reactive (60 – 180 days)

The WHO declares Phase 6, and the world sets out to minimize the impact of the pandemic (tactical response). Mobilization of assets begins. This may be too late for effective tactical response because the pandemic has already spread and now defensive actions are the only and very limited option. In this scenario, a reactive fear-based response is the overriding driver.

Some countries begin closing their borders. Other countries react by closing their own, further exacerbating the situation. This action has many economic implications.

As borders are closed, international trade is brought to a standstill or is extremely limited. If the H5N1 pandemic in any way parallels the influenza of 1918-1919, an estimated 66 percent (two-thirds) of the deaths will occur in a 24-week period (approximately 168 days), and more than 50 percent will occur roughly within the first 90 days. The potentially staggering death toll and the reaction to the pandemic will result in slowdowns of already fragile economies, leading to worldwide accelerations of workforce layoffs as markets react, rapidly shrink, and/or completely cease to exist.

Faced with suddenly idled workers and the worldwide need for medical aid, governments are thrown into chaos. Traditional services of government—military, police, fire, emergency medical services, administrative, and tax functions—are soon strained to the point of breaking. Governments worldwide begin to organize military forces to keep order internally and to supplement police, fire, and emergency medical services. The situation is soon exacerbated by many of the government's own personnel falling victim to the influenza.

While this picture of the first phase of the pandemic is pretty bleak, it's not without precedent in recent history. We have experienced violence and looting after hurricanes, earthquakes, and other natural disasters. The world, unfortunately, is sometimes not as civilized as we would like it to be.

Phase 2: Dynamic Consistency Problems—Paralysis (180 – 320 days)

As the world adjusts to the reality of the pandemic, the United Nations (UN), WHO, Centers for Disease Control and Prevention(CDC), and other entities set out to contain the continuing outbreaks. Businesses readjust to the realities of a changed and changing operating model. It's no longer business as usual. Supply-chain adjustments are made, albeit slowly and sporadically due to disruption of transportation systems. Service center operations (call centers, etc.) are reconfigured to adjust to the need to focus on geographical areas currently less affected by the pandemic.

The WHO, the international community, governments, and industry reassess the effectiveness of their efforts. Death tolls show signs of leveling off and even declining in some areas, but death tolls in past pandemics have been shown to be cyclical. In this phase, a paralysis begins to set in as economies, affected by the reaction of governments (border closures, quarantine, etc.), become bodies at rest, not bodies in motion. The world begins to realize that the energy required to regenerate global economic motion will be massive.

Phase 3: Worst Case—Collapse (320 – 600 days)

As global trading systems begin to collapse, localization takes root. Large, integrated companies are forced to downsize. As the world adjusts to this new reality, some local economies begin to revitalize as access to raw materials or changes in demand are compensated for by readily available products. Supply-chain adjustments continue to be made as countries dependent on external resources see the balance of power shift. Consumer societies are being forced to face sobering realities.

Death tolls may again begin to rise as local efforts to stem the pandemic and deal with normal medical issues face lack of materials (vaccine, medicines, etc.). But trade talks between consumer and supplier nations dominate the day. Financial concerns in the transportation industry are a major focus since trade routes depend on recovering national and international transportation systems. This action begins to revive and expand local economies but does not instantaneously return us to the pre-pandemic days.

The world begins to realize that the energy being expended on localization could form the basis for the regeneration of the global economy. Paralysis, despair, and retrenchment are replaced with local revitalization and rediscovery during this time frame.

The global economy is still faced with answering the significant question of how

to restart an intricate and complex system that has evolved over time such that it can manage the stresses associated with its functioning. And the global economy may begin to question which country should lead and manage this undertaking.

Phase 4: Recovery—Every Time History Repeats Itself, the Price Goes Up (600 – 800 days)

The pandemic will gradually subside, relieving health care systems that are by this time gasping for survival. The world enters a very slow and potentially torturous recovery mode.

Tainter, in *The Collapse of Complex Societies*, cites four concepts that would lead to an understanding of collapse:

- Human societies are problem-solving organizations.
- Sociopolitical systems require energy for their maintenance.
- Increased complexity carries with it increased costs per capita.
- Investment in sociopolitical complexity as a problem-solving response often reaches a point of declining returns.

If we consider Tainter's last point, that increasing complexity often reaches a point of declining returns, we can project that at this stage of the pandemic, that attempting to maintain the status quo regarding our complex global economy may actually exacerbate the recovery from the pandemic.

The economic stakes at this stage are going to be very high. Governments, businesses, and consumers will have to work hand in hand to realize the revival of the global economy. While localization has provided a basis for surviving the pandemic, new growth on a global scale will be slow in coming. This may be due partially to fear that a return to the norm might just invite a recurrence of the pandemic to areas considered virus free.

If the pandemic does indeed cost the United States the staggering sum of $675 billion, as cited by Sen. Bill Frist, what will be the impact on the global economy? If the Congressional Budget Office estimate—that direct and indirect costs would reduce U.S. economic production by 5 percent—is correct, what will that mean globally?

The U.S. economy is part of a complex global economy. And, as Tainter points out, increasing complexity often reaches a point of declining returns. Will nations have the wherewithal to fight off the temptation to go it alone? Each cog (nation state) in the global economy is like the link in a gigantic supply chain. Where a country fits into that chain is of critical importance to the recovery process. While the U.S. economy generated $11.7 trillion in gross domestic product, will it be the head of, middle of, or at the end of the chain?

The cost of investment is predicated on where you are in the chain. If you're a consumer (an importing country) as the United States is (e.g., trade balance), then the cost of investment is related to the availability of alternate sources and the nearness to the delivery point of the finished product. Being a consumer in the post-pandemic economy, however, may be difficult if the consuming nation doesn't have a strong financial standing and/or a readily acceptable trade alternative (i.e., monetized commodities).

If you're a supplier (an exporting country) much like the countries rich in natural resources, you have to determine where your entry point is along the supply chain. But being a supplier in the post-pandemic economy may be as difficult as being a consumer if other suppliers (i.e., shippers, etc.) break down because of financial woes caused by the pandemic.

A country's investment (its economy) is going to reflect the degree of damage the pandemic does to its population and the economic infrastructure that population supports.

Restarting a complex global economy may initially create a cost-benefit curve that looks very promising; the easiest, most general, most accessible, and least expensive solutions will be the ones that are tried first. As these solutions peak and essentially are exhausted, continued economic stresses will require further investments in complexity. The question will be: Where do the governments, peoples, businesses of the world come up with the money to pay for investments in complexity that return the global economy to the status quo?" Realize that in the 500- to 800-day time frame we've envisioned, much of the world's cash reserves will have been spent fighting the pandemic.

Beyond 800 Days

Current research indicates a small portion (5 percent) of businesses today have continuity plans, but virtually all realize they're at risk to the effects of a pandemic. The Center for Resilience at The Ohio State University defines a resilient enterprise as follows: "A resilient enterprise has the capacity to overcome disruptions and continually transform itself to meet the changing needs and expectations of its customers, shareholders and other stakeholders."

Government and business leaders have a responsibility to protect their organizations by facilitating continuity planning and preparedness efforts. Using their status as leaders, senior officials, senior management, and board members need to deliver the message that survivability depends on being able to find the opportunity within the crisis. Today we can't think only about the plannable or plan for the unthinkable; we must learn to think about the unplannable.

Humans by their very nature are resilient. We have managed to evolve through the ages and have survived ice ages, volcanic eruptions, wars, pandemics, and other maladies. We'll survive this challenge, too. We may not, however, be able to return to the status quo we're accustomed to today. Will it be a better world? Will it be a more difficult world? That only time will tell.

The mortality rate of the pandemic will be only the tip of the iceberg; the speed at which it achieves global contamination and economic impact over time will be the major issue to contend with. Preparing yourself and your organization needs to be done now, not when the pandemic is upon us. ●