

GLOBALIZATION and OFFSHORE OUTSOURCING

A Tale of Two Realities

(An abridged version)

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Globalization and Offshore Outsourcing: A Tale of Two Realities

ABSTRACT

American corporations, large and small, have been, in recent years, contracting out many of their information technology (IT) development and IT “back-office” projects to overseas software companies, principally to countries like India, with its large pool of highly-skilled English-speaking technical manpower. While examining the principal reasons behind this so-called offshore outsourcing, this paper seeks to address the following issues:

- a) Economics: There are many reasons driving outsourcing and these reasons affect different groups differently.
- b) Politics: Why has outsourcing been in the news a lot lately? What are the sources of anxiety? I will discuss how outsourcing is becoming a politically divisive issue. Is the outsourcing trend here to stay or will there be governmental curbs to rein in its effects to protect American jobs?
- c) Sustainability: Is IT outsourcing a form of globalization which is sustainable for both originating countries such as the U.S. and recipient countries such as India? There are hidden perils and costs associated with outsourcing that have the potential to create unintended and untoward consequences. One such is the flight of intellectual capital overseas, the reclaiming of which can be very difficult with passage of time.
- d) Costs and Benefits: what are outsourcing’s costs to the consumer, to the economy and to society?

While examining the emotional, social and the very real pocket-book consequences unleashed by outsourcing, my principal argument is that outsourcing has always been part of the American economic engine and after coping with the current wave of political backlash, outsourcing will continue to happen and not only in IT. Thanks to Internet-driven tools and technologies, IT outsourcing will be the new exemplar. More and more sectors are and will continue to be opened up by globalization.

This new round of outsourcing, I will argue, is fueled by a combination of efficiencies and profits sought by producers of goods and services along with the consumer-driven passion for quality goods at affordable prices. The fundamental driver for the source country is cost-effective production of quality goods and services; the driver for the destination country is developing a *globalized* service-based economy based on highly sought-after skills and delivering services using low-cost broadband communications as the primary mode of transport.

Chapter 1: Introduction

The Core Argument

In the context of the U.S. economy, outsourcing has always existed, but what is new is that more and more sectors are being opened up for grabs. Previously, only routine, relatively lower-paying occupations were affected, but now more and more occupations that are the underpinnings of a solid middle-class are susceptible to outsourcing, thus contributing to the prospect of an increasing destabilization of the middle class. Until a few years, it was the anonymous blue-collar factory worker jobs that were outsourced which benefited a relatively large number of U.S. consumers with, for example, quality goods (automobiles, consumer electronic) at affordable prices. Now what is different is that the occupations of these very consumers itself are at risk of being exposed to the forces of outsourcing. High-paying, high-value, creative jobs that were thought to be impregnable to globalization's pressure points, are finding ways to breach the border, as developing countries have geared up with the necessary skills upgrade and vastly improved technology and communications infrastructure.

The most visible outsourcing sector is IT software development, which Forrester Research estimates will "export" 3.3 million U.S. jobs by 2010. But there is growing evidence that other sectors are following IT's example: back-office call centers, medical transcription, X-Ray radiology, tax return preparation and customer support. Each newly opened-up sector serves as a compelling exemplar, which in turn creates cracks in hitherto invulnerable sectors. The likelihood of more of the IT sector following the manufacturing industry's example of contracting out to low-cost offshore partners is far more probable because of the abundant availability of broadband bandwidth and the very low communication and software "transportation" costs.

White-collar workers, a demographic adversely affected by outsourcing of high-paying jobs, have institutional access and communication savvy to set up high-profile websites, write letters to the editor, get their faces and views on influential TV programs, vote in large numbers and have been instrumental in getting their elected representatives to shine the spotlight on what has been perceived as the slow but sure draining away of good, well-paying middle-class jobs.

While low-cost has been the initial driver for outsourcing, in the IT arena at least, Indian software vendors, for example, have been able to meet demanding quality and performance requirements of western corporations. Now, in a new twist, some Indian vendors are even setting up job-creating, close-to-the-customer consulting subsidiaries in the U.S.

Private sector businesses, large and small, have dominated the U.S. economy and the increasing levels of productivity they have been able to achieve has resulted in high quality, lower-cost goods for the American consumer. The "Walmartization" of the economy is slowly diffusing through the other product and service sectors. That powerful sub-\$1000 PCs and high-quality consumer electronics products are within reach of most of the middle-class, is an

indication that the outsourcing trend, partially responsible for the plummeting of these price points, is an inexorable force that cannot be easily contained.

CEOs of most Fortune 500 corporations, whose primary objective is to maximize profits and deliver maximum value to their shareholders, are always looking to rein in labor costs and the escalating cost of benefits (e.g. healthcare.) These corporations have clearly signaled their intentions to find productive labor wherever it might be, an indication that labor too, like capital, is becoming increasingly mobile. This is underscored by the fact that many of these corporations have made significant R&D, production and back-office investments in countries like India, China and the Philippines.

Universities and business schools are reckoning with the new reality, by establishing courses and programs that squarely focus on the globalization of business via outsourcing. In an indication that the future business leaders are acknowledging this reality, such classes are routinely oversubscribed and it is becoming increasingly commonplace to see groups of American students tour facilities of Indian companies to see for themselves how outsourcing actually works.¹

Outsourcing has entered the political jargon as a result of sustained activism by the aggrieved and articulate white-collar workers who have seen their jobs disappear. An extended recessionary climate followed by a jobless recovery has sharply drawn the political battle lines in the current presidential campaigns. While President Bush is still sticking to the unfettered free trade positions, his opponent, Sen. John Kerry, is shining the light on “Benedict Arnold CEOs” who have been “exporting” American jobs, by vowing to eliminate all tax advantages for corporations who do so. Kerry acknowledges that he cannot put up barriers, but is trying to make it less attractive for corporations to seek cheaper sources of labor overseas.

For the foreseeable future at least, consensus on how to respond to outsourcing will be difficult to achieve. There will continue to be two sets of reactions to outsourcing, from within American opinion – one from the outsourcing positivists, unremitting free-traders who simply ask to leave things alone and let market forces dictate the course and the other, from the outsourcing worriers, concerned with the gradual destabilization of the middle class and wants institutional forces to step in and institute remedial measures.

The Context

Outsourcing happens when a firm contracts a business function with an outside supplier. When this outside supplier lives in what is somewhat pejoratively referred to in the literature as a low-wage destination country, *offshore* outsourcing happens. A form of outsourcing, interstate outsourcing has been already been happening within the U.S. In the past twenty years, large corporations have outsourced call-center or customer service operations to locations in rural Midwest towns like Nebraska and North Dakota, to take advantage of an acceptable skill base at relatively lower costs.

The reduction in computer and Internet-driven communication costs coupled with the widespread use of standardized development methodologies and software packages has made it

much easier to outsource IT software development functions to countries like India. More than software development itself, which occupies a relatively small sector of the economy, what has raised the hackles is the encroachment into the outsourcing world of bigger chunks of the service sector: customer service, technical support, tax preparation, medical transcription, telemarketing and various kinds of back-office financial services.

The consequence of offshore outsourcing – the migration of American jobs overseas – has shown that globalization can affect white-collar professions, hitherto immune to foreign competition, in the same way that the manufacturing jobs have been affected for years. Outsourcing has become a familiar topic of national conversation and in a country already polarized politically, this too has become a divisive topic. Opponents call for drastic policy responses to arrest its job-destroying effects, while its let-it-rip proponents argue equally strenuously that to believe outsourcing causes unemployment is the economic equivalent of believing that “the sun revolves around the earth: intuitively compelling but clearly wrong.”²

The primary context for the outsourcing-induced anxiety has been the relatively poor labor market in the early years of the twenty-first century. Even though the U.S. economy is powered by hundreds of large and medium-sized corporations, the business success of these corporations is governed by the connectedness among them and ultimately with the consumer. Thus a steep downturn in the stock market, as in the years from 2000 to 2003, results in vastly reduced investor sentiment and causes financial services firms like Charles Schwab to experience drastic reduction in its trading volume. This in turn causes vastly *reduced* demand for computers from DELL, Internet routers from CISCO, desktop software from Microsoft and complex enterprise software packages from Oracle and PeopleSoft, reduced IT consulting services from firms such as Accenture, EDS, Ernst & Young, IBM Global Services etc. In varying degrees, there is a pressure on all these vendors to cut costs to stay viable.

The malaise in IT spending, in turn, causes thousands of smaller employers to look for ways to cut costs, often drastically, and still develop various business functions. To do this, these employers have resorted to workforce reduction and contracted with offshore suppliers. This combination of employee layoffs and contracting to outside suppliers has found a politically and emotionally explosive expression: exporting good American jobs to low-wage nations.

Chapter 2: Outsourcing Blues: The Sound and the Fury

Free Trade or Low Costs

Outsourcing or its more politically explosive cousin, offshoring, has become a very emotional topic of national conversation. The buzz about outsourcing is now all over the news. Not a day goes by without hearing about some aspect of it on the TV, the radio, in high profile Op-Ed pieces, on the political campaign stump and in myriad online forums. For more than a year, Lou Dobbs on CNN has been featuring a segment called “Exporting America.” Each weeknight he profiles various aspects of corporate outsourcing and a scrolling graphic of the names of major, in some cases marquee, American companies, that have outsourced some of their work overseas, rolls by in the background. This outsourcing “wall of shame”, in the teeth of massive unemployment and underemployment in the U.S. is meant to provoke viewers into urging their elected representatives to respond via some credible public policy positions.

While Lou Dobbs, not exactly known as a bleeding heart, has staked out a strong position against the outsourcing of high-paying IT jobs, he is countered by many writers in the media and economic think-tanks who argue that America’s destiny is inextricably bound with the forces of free-trade. And furthermore, America will always be better for it. It is always interesting to examine the personal and political circumstances of those who say “Let the market take care of it.” Or “this is exactly how economic globalization is meant to work.” One need only look at the high profile columnists like Thomas Friedman, George Will, William Safire, David Brooks, to note their optimistic soundings of the positive payoffs of globalization³.

The Sustainability of Outsourcing: the Perspective of the Worriers

In this section and in the next chapter, I will examine the sustainability of the outsourcing trend from two angles: the angle that argues for a realignment of U.S. priorities in such a way that the U.S. economy will be able to create a broad range of jobs of varying skill levels. Creating a diverse mix of jobs with the ability to smoothly migrate to higher levels of skill and pay are crucial aspects of sustaining the middle class which is the backbone of American society.

The other angle, presented in the next chapter, revolves around the adage: offense is the best defense. This school believes that outsourcing is part and parcel of the globalization game and in any case, when you analyze and crunch the real numbers, the percentage of jobs actually moving abroad is only a small sliver of the large 140-million jobs U.S. economy. This school believes that the noise over outsourcing has been particularly exacerbated by the exigencies of a contentious election year politics coupled with a prolonged “jobless recovery.”

Proponents of the optimist school are quick to point out that any involvement of lawmakers at the state or national level is tantamount to protectionism and any attempt to throw up trade barriers will hurt more than help American workers. A larger goal of this community is

to instill the discipline to stay the free-trade course and to “creatively” deal with the effects of globalization, especially in the leaner years of the business lifecycle.

The Outsourcing Worriers

First we discuss the sustainability of pursuing policies that promote unfettered globalization. Many economists and financial analysts have viewed the softening of the U.S. economy and the prolonged stock-market downturn as just the ebb and flow of business cycles that have always characterized the U.S. economy. Coming as it did after the go-go years of the Internet-fueled New Economy, others argue, that as a nation, we are missing the deeper meaning of this prolonged downturn.

Consider that during the New Economy era of the 1990s, jobs were plentiful, dozens of companies were started each day and many of them well-funded. It was even a source of pride for many Internet companies that they didn't expect to turn a profit for several years into the future. All the talk was of “eyeballs”, “building out capacity”, “getting mindshare”, and “getting millions of unique hits” etc. Except for a handful of these New Economy companies, many of them did not make a dime and went belly-up, saddling their investors and creditors with tons of red ink.

It was precisely during the euphoria of the go-go New Economy era, that more stodgy and staid industries underwent a quiet decline. I have already referred to the drudgery of the myriad Y2K and Euro-conversion software projects, which had a hard time attracting qualified American workers. Nobody was afraid of losing their jobs, much less to a foreign worker and in fact the intoxicating drug of stock options and sign-on bonuses made it more likely for smart programmers to become what was cutely referred to as serial-entrepreneurial techies. Even though, on a dollar basis, the Internet-based economy caused barely a ripple, the over-the-top stock market stories gripped the psyche of ordinary citizens, policy makers and politicians alike.

The optimistic view, shared by many pro-globalization writers, was that while NAFTA may be siphoning off hard-earned manufacturing jobs from North Carolina, Ohio and Wisconsin, there was this “new new” thing that was going to be its bigger and better replacement. Innovation and creativity are the coins of the American realm and all the high-roller Internet companies were just the beginning of a new and vastly brighter economic future.

The absurd over-valuation of hi-tech companies, both the established as well as the nascent ones, came crashing down to earth and then some, in the years beginning from 2000. Some argue that this is no “isolated mishap”, but part of a “much larger pattern of American self-delusion.”⁴ An important part of this delusion is the poise and even-handedness with which the U.S. has viewed the decline of its manufacturing industries.

In his book, *“Unsustainable, How Economic Dogma is Destroying American Prosperity”*, Eamon Fingleton argues that by neglecting advanced manufacturing industries, the United States is “courting long-term enfeeblement.” The indifference of U.S. policy makers to this decline in manufacturing industries, Fingleton argues, is based on no rigorous analysis. Instead, this indifference, just like the go-go optimism of the New Economy talk, is all chalked

up to the dictates of the market. Whatever the market dictates, even in view of changing circumstances, must be right.

The lessons from manufacturing apply equally well to IT software development. Developing IT solutions is a complex and challenging task. Almost every industry in the past three decades has become productive as a result of “computerizing” many of its more routine and difficult operations. Stanford University professor Donald Knuth, one of the earliest professional computer scientists, titled his seminal programming books that first came out in the 1970s, “The Art of Computer Programming.” To be sure, computer programming involves lots of “science” elements such as numerical algorithms, algorithms to solve common problems in game theory, graph theory and so on. However, much of corporate software development also involves the far more complex art of modeling knotty business problems, making judicious compromises between features and costs, often under the auspices of complex legal and financial regulatory guidelines. Examples are products that have to comply with the Sarbanes-Oxley corporate compliance financial service applications that must comply with the complex Basel II Accord (an international banking regulation) for managing market, credit and operational risks, all areas that I am currently involved with.

The act of translating the requirements of a specific problem from a given business domain to a smoothly running software application, has many of the elbow-grease elements of the manufacturing industry. Indeed, many software development positions sport job titles such as Software Engineer, Application Architect, Quality Assurance Manager and other such manufacturing-like names. This is no accident. Developing and then deploying a software application is a complex task and as such it is a *creative* endeavor. Creative as in, to create or to make something from scratch. This is where companies acquire the intellectual equity required to make innovative products consistent with market demands. To sacrifice this creative edge in the IT sector means letting other countries create the core intellectual assets and American companies in effect become “parts assemblers”, the software *maquiladoras*.

“Everything is up for Grabs”

The case for the IT sector going the way of manufacturing is even more probable because when it comes to IT, there has been a fundamental paradigm shift in the last five years. The ubiquitous availability of broadband facilities has made it possible for IT-enabled services and IT products to be transacted with little or no cost. Unlike hard goods such as automobiles and steel which are traded via cargo ships and other modes of transportation and governed by a complex system of customs duties and tariffs, IT goods can essentially be transacted via a quick SEND button. While this may sound a little simplistic, the fact remains that the infrastructure to carry on cross-border trade in the IT world is relatively inexpensive and thanks in part to the excesses of the New Economy era, the software and hardware transportation bandwidth is abundantly available.

The low-cost transport mechanisms for transacting IT goods form a basis for increased willingness of American corporations to do business with vendors in developing nations such as India. With the almost 12-hour time difference between India and the U.S., Indian vendors who also maintain a presence in the U.S. often tout the “follow-the-sun” model. Workers in India, at

the end of the work day, hand-off their work to their counterparts in the U.S. who carry on from where their Indian colleagues left off.

This type of seamless exchange of goods, while certainly efficient and augurs well for increased productivity, are exactly the kind of things that cause American workers anxiety. They worry that in the information-age economy, all sorts of jobs are at risk. This view, in an inverted way, is also shared by Indian vendors, who for the time being, are one of the biggest beneficiaries of IT outsourcing. Nandan Nilekani, the CEO of Infosys Technologies, a major NASDAQ-listed Indian IT player which does business with hundreds of U.S. businesses, declared at the World Economic Forum in January of this year at Davos, Switzerland, “Everything you can send down a wire is up for grabs.” This sound-bite, in particular, has now become a staple of Op-Ed writers on both sides of the outsourcing issue.

The “everything” referred to by Nilekani, means the outsourcing of other IT-influenced jobs as well. A U.S. based company, SurePrep, now has tax returns for U.S. citizens prepared in India. This has spawned a new kind of business model for small, even one-person, U.S. accounting firms. Overnight, they claim that they can now process hundreds of more tax returns. Their secret: digitize the returns, email them to SurePrep in California, who in turn electronically dispatches it to its 300+ Indian subsidiary in Mumbai, India. In a “60 Minutes” interview on CBS TV, the young CEO of SurePrep, offered a variation of the oft-quoted salve, “...now the U.S. tax accountant can do more creative things and help their clients with higher-value services.” Most middle-class taxpayers may be amused to learn that their cut and dry tax situation has suddenly become eligible for more “advanced services.”

Chapter 3: Offense is the Best Defense: In Defense of Outsourcing

The Positivists: Outsourcing Presents Opportunities

We now examine the vociferous perspective of those who believe that all this angst over outsourcing is overblown and completely out of proportion to reality. We will refer to them as the outsourcing positivists. While the majority of the Op-Ed pieces in major U.S. newspapers have been distraught over the human cost of outsourcing, there have been a smattering of voices, from time to time, that have been sounding alarm bells over being, well, too alarmist.

In a forthcoming *Foreign Affairs* article, “The Outsourcing Bogeyman”, University of Chicago economist Daniel Drezner, makes the case that the benefits of outsourcing outweigh the costs. Any attempt to have Congress intervene will just make the problem worse for the U.S. economy and for the very American workers that opponents of outsourcing seek to defend.

Another policy paper that has received widespread attention in the media is a December 2003 brief from the International Institute for Economics. In, “Globalization of IT Services and White Collar Jobs: The Next Wave of Productivity Growth”, the author Catherine Mann estimates that the globalization of IT *products* has boosted U.S. GDP by \$230 billion over the past seven years⁵. She predicts that the globalization of IT *services* will result in a similar increase.

The globalization of IT hardware has resulted in dramatic price reductions for computer chips and indeed the overall cost of the personal computer. In 1996, I bought a fully loaded Toshiba laptop computer for nearly \$8,500. More recently, I bought a similarly configured laptop from DELL, but with a far more powerful processor, five times the amount of memory and a more advanced version of the Windows operating system, for only \$1,800.

While some of the hardware price reduction can be attributed to significant technological changes and more widespread demand for PC products, the globalization of hardware production (which means lots of offshore suppliers and the use of offshore fabrication facilities) has resulted in a price decrease of about 25% than it would otherwise have been. Mann argues that the model for hardware globalization applies equally well to the globalization of IT: “As IT hardware prices have declined, the importance of IT services and software in the IT package has increased from 58% in 1993 to 69% in 2001. Over the same period, growth in software and services spending at 12.5% has overwhelmed growth in hardware spending at 6.7%.”

In the face of this increased demand for software services, packaged and custom software is now being produced globally. Starting in the mid-1990s, among the primary enabling factors for this has been the development of the broadband capabilities that facilitate efficient communication between the software supplier and the end-user customers. Another important factor has been the standardization of software methodology such as the Capability Maturity Model (CMM), which I will discuss in the next chapter.

The fact that Indian companies account for more than half the total number of companies with the highest CMM Level 5 rating, a tremendously difficult feat to achieve, points to the fact that mere low-wages is not a sustainable reason for the current wave of outsourcing. In addition, Indian vendors have developed considerable savvy in working as geographically disparate but integrated teams, using various Internet-inspired collaboration technologies. This kind of team software development across multiple geographies is becoming the qualifying paradigm for globally integrated production of IT software and services. This will, as in the hardware world, reduce the cost of making customized business-specific packages, which in turn, according to Mann and other like-minded protagonists, promote further diffusion of IT use and transformation throughout the US economy.

The outsourcing optimists point out that the vast teams of technical personnel in India, for instance, are focused on “quality, ISO and CMM certifications” and getting the details and process right. The future of the American workplace, they point out, will be led by the “creative class” – the class of people who will invent, innovate and imagine new kinds of products and services⁶. The optimists readily and happily concede that certain kinds of work such as implementation of enhancements, maintenance, testing, software upgrades and other routine knowledge work will continue to be done overseas. However, the creative jobs will require aptitudes that are more difficult to outsource: collaboration with leading-edge university labs and research institutions, creative imagination in a stimulating environment, empathy with end users and the ability to forge collaborative relationships. Writers such as Richard Florida take strong exception to statements like: “In the age of high technology, geography is dead and the place doesn’t matter anymore.” Nothing, they contend, could be further from the truth.

There is now a growing trend in American software companies to create what are called industry-vertical solutions. Solutions that are specific to business domains such as financial services, retail, pharmaceuticals, etc. This is different from software tools or “horizontal” software products – products which are generic in nature and can be used by a wide variety of users. Industry-vertical products are more complex and requires the application of IT to complex business domains. Such products are highly customized for a specific class of customers. The development of such vertical-market products require close interaction with customers, industry groups and regulatory bodies, a vast percentage of whom are located in the U.S. and the E.U. countries. These countries still command the biggest market in terms of finished IT solutions.

Combating the Politics of Outsourcing

The world over, international trade has always created two sets of contested outcomes: the benefits and costs. Who benefits and at what cost? At its best, the benefits are diffused across the economy, but the costs of global trade are concentrated. Thus when textile mills close in “one- company” North Carolina towns, there is the very human cost of jobs lost and livelihoods severely disrupted, but for millions of others, there is the “always low prices” pheromone beckoning at Wal-Mart, thanks to inexpensive imports from China. Workers, especially those who have lost high-paying IT jobs, who are adversely affected by cross-border trade, tend to organize and publicize their situation through well-trafficked websites.

As the economic downturn began bleeding jobs, websites with high emotive content have sprouted up: No-H1B.com, Rescue American Jobs, Save U.S. Jobs, Coalition for National Sovereignty and Economic Patriotism. The website Zazona.com features personal stories of thousands of workers whose livelihoods have been rudely disrupted by offshoring and also includes various outreach advocacy material for pressuring elected representatives to protect American jobs from being “wasted away.” All these websites chronicle rather chilling personal stories and any attempts to objectively “put things in perspective”, as evidenced by the blog entries on these websites, are greeted with hostile skepticism. Public hostility towards the destabilizing effects of trade is heightened during economic downturns. This is the crux of the argument that even moderate critics of outsourcing grapple with.

Offshore outsourcing, they admit has always happened, but you have to take into account the context in which the current round of outsourcing has drawn such widespread attention. The context is one of slow job growth in the American economy. The presidential tenure of George W. Bush has seen the loss of more than 2 million jobs. The outflow of high paying programming jobs to places like India accentuates the feeling that something has fundamentally gone wrong and needs the intervention of government policy. Manufacturing workers have long been subject to the rigors of foreign competition, but white-collar IT workers are being subjected to it for the first time and naturally they are not happy about it. And in some cases, the humiliating circumstances of training a foreign replacement before being handed the pink slip is psychologically very damaging.

In addition to IT services, a host of other professions in legal, accounting, medical, financial services, call center operations, are all being subject to the outsourcing pressure. In the book, “Saving Capitalism from the Capitalists”, authors Raghuram Rajan and Luigi Zingales point out that globalization and technological innovations are beginning to affect professions such as law, medicine and financial services – professions that haven’t changed all that much (from a job-migration viewpoint) for centuries⁷. Their political reaction to the threat of foreign incursion into their, hitherto, secure territory is bound to be fierce, as is evidenced by the heated rhetoric in this year’s political campaign.

When politicians rail against outsourcing, they are responding, if in somewhat self-serving fashion, to the emotional chords struck by the voters. They have to be seen and heard to be responding to this crisis and to the extent scapegoating foreigners for domestic economic turmoil is smart politics, they are not shy about unleashing the “Benedict Arnold CEOs” rhetoric. The rhetoric is often couched in language that smacks of protectionism, without actually using the word itself. After years and years of preaching the benefits of free society, pluralism and efficient markets to other countries, realistically there is little political likelihood of actually erecting protectionist barriers. At best, state and federal agencies will insist, as has already happened with states like Indiana, Washington, New Jersey and Maryland, on making sure that taxpayer-funded IT contracts be given to only U.S. based software vendors.

So, what should be the correct policy response to the outsourcing angst? The outsourcing positivists contend that the best piece of advice they can give to politicians is: do nothing. Politicians are loath to exercise restraint, especially on such an explosive emotive issue. When asked about public policy responses to outsourcing, Robert McTeer, president of the Reserve

Bank of Dallas said, “If we are lucky, we can get through this year without doing something really, really stupid.”⁸

Remedies for offshore outsourcing begin with proper diagnosis of the problem. Here the two sides differ. The worriers believe that it is fundamentally an economics problem that has devastating jobs-destroying side-effects. The positivists believe that it is more of a psychological problem because workers in the vulnerable sectors will continue to feel that their jobs are under threat. One remedy that has been proposed is for IT firms to purchase customized insurance policies to offset the transition costs of workers dislocated by offshore outsourcing.

Going by the raw numbers of affected employees, discussed in an earlier section, as the perception of job losses is greater than the likelihood of jobs actually being lost, the insurance costs to IT firms would be relatively small. This would relieve a great deal of employee anxiety and in the event a job is actually lost, the insurance benefits would tide the affected person over for the transitory period. McKinsey Global Institute has estimated that such a scheme could be created for as little as four or five cents per dollar saved from offshore outsourcing. IBM recently announced the creation of a two-year \$25 million retraining fund for employees who are likely to be disrupted due to outsourcing.

As strident as the debate over outsourcing is today, it will likely get muted, when the context for this debate changes. That is, as the economy continues to improve and robust job growth returns, the anxieties will subside. There is one thing to be said on behalf of the positivists who articulate their views from a principled position. During the 1980s and 1990s, American prosperity reached unprecedented levels due to expanded trade and as economic globalization caught traction, Americans benefited greatly.

It is easy to praise the virtues of free trade and international competition when the going is good, but the surest strength of the American character is to persevere with the bedrock ideals of economic liberalism during the leaner phases of the business cycle. An open economy, during difficult times, leads to short-term costs in concentrated sectors, but in the long term diffuses the benefits across a wider cross-section of the economy, resulting in significant growth and more jobs for U.S. workers.

Chapter 4: The Evolution of Offshore Outsourcing

The Origins of IT Outsourcing: the Y2K Entree

It is instructive to take a longer perspective of the chain of events that has brought the outsourcing phenomenon to the currently visible and politically contentious status. When the White House Economic Adviser Gregory Mankiw said in February, “outsourcing is just a new way of doing international trade” and like most trade, in the long run it is beneficial to the U.S., he uttered a basic economic truth which was, however, politically unpalatable. Essentially he invoked the theory of comparative advantage according to which there is no difference between a company like Black and Decker having made its power tools (a product or good) in Mexico and Accenture Inc. having its software projects (a service) executed in India.

If importing cheap manufactured goods from overseas that results in lower prices for American consumers is good for the U.S. economy, why is having software written in India at the behest of American corporations causing some much heartburn? The heartburn is primarily due to the economic dislocation of white-collar workers – the bedrock of the American middle class -- who vote regularly and who articulate their grievances in newspapers and other public forums. And in an industry first, IT workers have begun to unionize. This kind of visible advocacy against outsourcing works to create a potent perception that outsourcing is the putative reason for the dismal jobs climate, despite an overall economic recovery.

When it comes to IT outsourcing, the comparative advantage model is being turned on its head, primarily because, as some have argued, that its basic assumptions are out of sync with the realities.⁹ One assumption for this model to work is that the labor market is at full or near full employment. However, in the last fifteen years, some momentous one-time events have shaken the workplace foundations. The fall of the Berlin Wall and the near-simultaneous fall of the various communist-bloc regimes have, all of a sudden, dumped a billion unemployed or under-employed workers into the international labor pool. Western multi-national corporations saw this as a perfect opportunity to equip them with computers and high technology equipment and also seed these countries with western capital.

Beginning in the mid-1990s, the onset of the Internet revolution and the build out of vast amounts of underwater fiber-optic cables, exemplified by the work of companies such as Global Crossing, created an employment sector in developing countries, including the recently opened-up economies in former communist-bloc ones, that allowed them to compete effectively against millions of U.S. workers. The technology and investment of western capital facilitated this movement of capital in search of labor and suddenly unlocked the employable potential of millions of workers in the developing nations.

The final steps in the coalescing of the outsourcing industry were the 1999 Euro-conversion process and of course, the much talked about Y2K conversion projects. Corporations in the U.S. and Europe had millions of “legacy” software hard-coded with two-digit year codes instead of four-digit ones. With the turn of the century, all these mission-critical applications

would have failed disastrously. For example, a life-insurance policy set to expire in the year “20” would have been interpreted as expiring in the year 1920 instead of 2020.

The problem of fixing the Y2K bugs was greatly exacerbated by the absence of the underlying (human-readable) source code. No one had anticipated that programs written in the 1960s and ‘70s would still continue to be used towards the end of the 20th century. Also, early-era mainframe computers had severe memory restrictions and programmers had to use a great deal of ingenuity to squeeze as much data as possible into extremely resource-poor computers.

The large numbers of U.S. born engineers that had entered the IT workforce were not skilled in these decades-old technologies. Nor were these increasingly “ponderous” technologies being taught in colleges and universities. And virtually no U.S. worker, entering the workforce, wanted to work with these career-throttling software technologies, especially when more exciting and modern technologies exemplified by the likes of Xerox PARC, Microsoft, Cisco, Intel, Oracle, Apple and Adobe beckoned. The economic incentives of generous merit-based bonuses and highly lucrative stock options sweetened the choices even further.

The Y2K bug and the attendant mass-fixing of the thousands of corporate applications to overcome the bug’s adverse effects have been called by Thomas Friedman as the “perfect mating dance¹⁰.” In U.S. companies, working on Y2K conversions projects were considered low-wage, low-prestige jobs that required knowledge of increasingly obsolete programming languages such as COBOL and FORTRAN and also were considered intensely tedious, not conducive to career-advancement and dead-end assignments that were devoid of any creative or innovative potential.

The Y2K conversion effort required vast numbers of programmers, who were proficient in English, well-educated and computer literate. India, which began its ambitious economic liberalization program in 1991, churns out vast numbers of English-speaking graduates in mathematics, computer science and engineering each year. All these graduates were eager for advanced technology-based employment and Indian software companies were eager to prove their mettle on the world stage. India proved to be the perfect dance-partner for the thousands of U.S. corporations wishing to fix the vexatious Y2K bugs.

In the years from 1995 through 2000, American-born programmers had a cornucopia of career options. The early success of Internet companies like Netscape, Amazon.com fueled an explosion of entrepreneurial hi-tech companies that were well-funded by venture capital firms. These companies demanded bright, sharp programmers well-versed in modern programming languages such as Java and the ability to build applications using Internet programming technologies. The demand was so great, that programmer vacancies for the Euro currency conversion and Y2K conversion jobs went abegging. Congress, in a special provision, expanded the number of H1-B slots to about 195,000, an increase of 50%, to enable American corporations to hire foreign workers to do these jobs.

In retrospect, the Y2K projects undertaken by Indian companies were in and of themselves loss leaders, but the quality of their deliverables proved to be such a litmus test, that subsequent outsourcing to Indian software companies was only a matter of time. The implosion of the dot-com boom coupled with the extended recession beginning in early 2001 resulted in

vastly reduced IT spending by U.S. corporations. However there were still projects needed to be done, even if the budgets were sharply reduced.

With the development of broadband infrastructure in India and the very successful Y2K dress-rehearsal behind them, it was only natural that Indian companies stepped into this post-dot-com breach. Once again, a perfect mating dance. The IT requirements of a budget-challenged U.S. corporation found a perfect partner in a low-wage, highly-qualified destination in India.

All these factors taken together, have the potential to create an extended period of imbalance between supply and demand for labor in the U.S., which could portend a prolonged period of wage stagnation and job dislocation. As the critics of the economic policies of the current president are never tired of pointing out: it is not that we are having a jobless recovery, only that the jobs being created are in Bangalore, not Boston.

Quality, not just Low Cost, as an Outsourcing Driver

Another factor driving IT outsourcing to India can be captured in a single sentence that Indian IT vendors love to publicize: “We are not just cheaper, we are better.” The accuracy of this marketing claim can be gauged from the fact that even small second-tier IT vendors are able to attract marquee western corporations as clients. The case of Hexaware, a tier-2 vendor, illustrates the case. With nearly 2,000 employees spread across the three large “software cities” Bangalore, Chennai and Mumbai, Hexaware counts among its clients such names as Citibank, Deutsche Leasing, Alliance Capital, Air Canada, Hong Kong and Shanghai Banking Corp., BP, Princeton University and “other institutions that won’t permit Hexaware to reveal their names.”¹¹

Aside from low cost, quality and adoption of exacting software methodologies and standards have raised the reputational profile of such Indian vendors. An important related factor has been the standardization of software methodology. A key standardization methodology is the U.S. based Carnegie Mellon University’s Software Engineering Institute’s “Capability Maturity Model.” (CMM.)

CMM is a rigorous blueprint for developing commercial grade software. CMM is classified into five levels, Level 1 through Level 5. Level 1 pretty much indicates an *ad hoc*, non-repeatable process that is symptomatic of a chaotic and dysfunctional software organization. Indeed, many software organizations in the U.S. can be squarely placed in this category. At the other end, Level 5 certification indicates a sophisticated, highly mature software organization, with professional quality documentation for each step of the software lifecycle and detailed requirements tracing and “auditability” for every change that is introduced into the software application. Furthermore, with such a detailed blueprint, Level 5 organizations can change development teams with relative agility.

The Level 5 rating is the highest international standard a software company can achieve. To date, the vast majority of software vendors who have achieved the CMM Level 5 certification are Indian vendors, including Hexaware, and Indian subsidiaries of U.S. companies such as Motorola and Texas Instruments. Indeed, of the 70 or so companies in the world that have

achieved this rating, more than half are from India. Achieving Level 5 certification is very difficult, an indication from the relatively small number of organizations that are in that elite list.

U.S. corporations outsourcing software projects to Level 5 vendors in India, place a great deal of confidence in all that it implies: quality software delivered on time within the estimated budget. And with a “follow-the-sun” team of developers distributed among many geographic locations, each team seamlessly picking up from where the previous one left off, the adoption of rigorous methodologies, like CMM, is paying rich dividends. The software development costs have also been contained by widespread adoption of high quality “open source software” like Linux, Java and a host of other Internet-related technologies.

Outsourcing through Social Networks

Another factor aiding the outsourcing trends towards India is the high number of Indian-origin people already working in the United States. Various reports have estimated that about 30% of engineers in the Silicon Valley are Indian or of Indian-origin.¹² Microsoft has more than 6,000 Indian-born engineers. As a result of this, more and more Indian vendors exploit the social network already in place and enable the Indian vendor to win contracts from U.S. businesses and increase their software exports to the U.S. It is a fact that many Indian executives holding down high-level jobs in the U.S. retain links with friends and fellow-alumni in India and such links not only help Indian software vendors to keep in touch with the latest American software innovations but gives them an inside track in bidding for the American outsourcing jobs.

The presence of these social networks and its efficacy in greasing the outsourcing chain from U.S. businesses to Indian vendors (or U.S. vendors’ Indian subsidiaries) is just another enabling factor sustaining the outsourcing trend. Unless some drastic legislative measures are taken, passage of which is likely to be very difficult thanks in no small measure due to influential lobbying firms arguing the cause of big business, it is difficult to see U.S. corporations exercising any kind of restraint. Just as a recent example, the world’s largest computer services company, IBM, announced on April 9th that it will acquire Daksh eServices India’s third largest business outsourcing firm. With the acquisition, IBM acquires a sophisticated call-center operation with more than 5,000 well-trained employees.

IBM’s acquisition is seen as a vindication of IT service providers’ pursuit of a global delivery strategy. This strategy seeks to deliver IT services to U.S. customers from offshore locations in a cost-effective manner. Large vendors like IBM sign complex mega-deals where they offer a mix of products and services for a price-point which is attractive to the customer as well as profitable for the supplier. The significance of IBM’s acquisition reinforces the IT spending shift that is well under way and other providers, large and small, are sure to follow this example, because large vendors like IBM have the influence to change the flow of the supply chain and thus affect the overall market structure.

Conclusion

What is perhaps unique about the IT outsourcing debate is that the debate is largely waged *within* the country between two very potent constituencies: the world of American business and its increasingly skittish employees who constitute the core of the American middle class. The corporate world views outsourcing as a strategic mechanism to create a globalized workforce, the skillful harnessing of which maximizes corporate profits.

The strains of this strategy are beginning to tell on the social costs we will incur as more and more sectors of the economy become susceptible to outsourcing and the middle class gets increasingly destabilized. The next five years will be crucial in determining how public policy leaders respond to this challenge and create a new level of equilibrium, an equilibrium that will sustain and nourish the creative capacity of the American middle class.

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