Op-Ed and Letters on Free Trade in Health Care

Part 1: Recent Writings Related to Health care Reform

1. "The Democrats' Dilemma: Choice between Loving Healthcare and Hating Trade." Abbreviated version appeared in *Wall Street Journal*, May 27, 2008, with Sandip Madan.

2. "Comprehensive healthcare in the U.S. can be realized," *Financial Times*, December 23, 2009, with Sandip Madan.

3. "Free trade would energize U.S. healthcare," *Financial Times*, June 1, 2009.

4. Unpublished letter critiquing a particularly tendentious op-ed by three doctors against "medical tourism" on June 10th 2009 in the *New York Times*.

Part 2: Earlier Writings which led to GATS (General Agreement on Trade in Services, part of WTO since 1995) Taxonomy on Modes 1-4

5. "Free Trade Can Cut Health Costs," *Journal of Commerce*, April 8, 1993. Reprinted in A Stream of Windows: Unsettling Reflections on Trade, Immigration, Democracy as chapter 38.

6. "Splintering and Disembodiment of Services and Developing Nations," *The World Economy* 7, June 1984, pp. 133-143.

Part I: Recent Writings Related to Healthcare Reform

Items 1-4 below relate to the argument that international transactions in medical services can reduce costs and relieve scarcities in a significant way in facilitating Healthcare Reform. For unedifying reasons which I am writing on, these ideas have invited no response whatsoever from the Administration or from its economists or from the Congressional staff and Representatives.

While the Healthcare Reform vote saw divisions along partisan lines, with all Republicans voting against it, the fact is that there was total bipartisanship in ignoring the suggestions advanced by me as per Item 1! Bipartisanship -- in this case, on neglect --- is no guarantor of virtue: Smoot-Hawley enjoyed bipartisanship also!

April 3, 2008 [Abbreviated Draft appeared in WSJnl , May 27, 2008]

The Democrats' Dilemma: Choice between Loving Healthcare and Hating Trade

By

Jagdish Bhagwati
and
Sandip Madan

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Healthcare reform has acquired political salience in the forthcoming Presidential election, with the widespread anxiety over wages and jobs making the economy a leading issue. Yet, while the Democratic contenders, Senators Clinton and Obama, claim credit for offering alternative comprehensive plans, they both leave important gaps regarding two key questions. The first concerns the availability of doctors to meet the needs of the newly-insured, a problem that Governor Mitt Romney ran into when he introduced comprehensive medical coverage in Massachusetts. The second is regarding the fiscal costs of comprehensive coverage, a problem that killed (in January 2008) yet another Republican Governor Arnold Schwarzenegger's ambitious attempt at healthcare reform in California

To address these questions effectively, both the candidates can ill afford to ignore exploiting the potential offered by international transactions in medical services. But to do this, they will need to abandon the Democratic Party's growing antipathy to an embrace of openness: loving healthcare and hating trade are incompatible positions. The containment of costs, using all existing modes of cross-border service transactions can be expected to save sizeable sums annually. Besides, the problem of finding doctors for the newly-insured can be overcome by taking a leaf from President Lyndon B. Johnson's ambitious Great Society program importation of doctors and other professionals to serve in the backward regions of the United States that enjoyed little access to available personnel within the US itself.

I: <u>Containing Costs</u>

The full potential of saving medical costs, for any specification of eligible medical relief, can be obtained by looking systematically at the four modes of service transactions distinguished by the WTO's 1995 General Agreement on Trade in Services. Mode 1 refers to "long distance" or "arm's length" services that are typically today online: the provider and the user of services do not have to be in physical proximity like with haircuts. The other three modes require proximity, however. Mode 2 relates to patients going to doctors elsewhere. Mode 3 refers mainly to creating and staffing hospitals in other countries. Mode 4 encompasses doctors and other medical personnel going to where the patients are. All modes promise varying, though substantial, cost savings.

Mode 1 can help save a significant fraction of the current administrative expenditures conservatively estimated by experts at $500 billion annually, by shifting claims processing and customer service offshore: nearly half of such savings are already in hand. If foreign doctors are further allowed to provide telemedicine, that can reduce the demand to see primary physicians. Again, diagnostic radiology offers yet-unrealized savings, through both cheaper prices paid abroad and through the beneficial price-reducing effects in the US itself. We estimate that the savings in healthcare costs could easily reach a magnitude of $70-75 billion.

Mode 2, where US patients go to foreign medical facilities, was considered an exotic idea when one of us (Bhagwati) proposed fifteen ago in 1993 (<u>Journal of Commerce</u>) that American patients could go to India and fix their dental afflictions and see the Taj Mahal for much less than what the dentist would cost in the United States:

now this is a reality, known as "medical tourism". Today, many foreign hospitals and physicians are offering world class services at prices that are a fraction of the US costs. Costly yet standard procedures with short convalescence periods, which today include heart and joint replacement surgeries, are candidates for such treatment abroad. By our estimates, thirty such procedures, costing about $220 billion in 2005, could have been "exported". Even if this was done with only 25% of the procedures, the annual cost savings would be in the range of $40-45 billion.

Mode 3, with hospitals established abroad, would seem to offer our doctors and hospitals considerable opportunity to earn abroad: a "gain" that could balance off the "loss" under Modes 1 and 2. But here also, the reverse establishment of medical facilities in the US is possible and could lead to price reductions, mainly by offering competition to the increasingly concentrated medical industry. A Report in February 2006 from the Robert Wood Johnson Foundation has described this trend to concentration since 1990 and has concluded that 90% of the larger metropolitan areas now face concentrated markets. Admittedly, however, the cost savings from such competition are unlikely to be very large.

Mode 4, where the provider goes to the user of services, concerns doctors and other medical personnel going where the patients are, however offers substantial cost savings since the earnings of foreign medical personnel are typically lower than those of comparable suppliers in the United States. This is true even vis-à-vis Europe where the US Census shows the net income of doctors averaged $206,000 in 2,000, which inflation adjustment raises to $230,000 currently, which is twice the average income of doctors in Western Europe.

II: Importing Doctors

But Mode 4 is far more important in meeting supply needs rather than in providing lower costs if healthcare reform is to be viable. According to the Census, the US had an estimated availability of 2.4 doctors per 1,000 population whereas the number was 3.3 in leading developed countries tracked by the OECD. But this is a crude comparison. What is more pertinent is that anything like a comprehensive coverage of the over 40 million uninsured today --- assuming that most of them can be dragooned into becoming insured even if they would rather not be--- will require that they can access doctors and related medical personnel. In short, an IOU that cannot be cashed in is almost worthless.

Governor Romney ran into this problem: few doctors wanted (or were able, given widespread shortages in many specialties) to treat many of the indigent patients qualifying under the program. The Wall Street Journal (July 25, 2007) reported, with telling stories and reference to reporting by the Massachusetts Medical Society, on how "Doctor Shortage Hurts a Coverage-For-All Plan". The answer lies in simultaneously allowing imports of medical personnel tied into tending to the newly-insured.

This is precisely what the Great Society program did in the 1960s, with imports of doctors whose visas tied them, for specific periods, into serving the remote rural areas. In particular, waivers were granted from J-1 obligation to return home to physicians practicing for a specified period in an "underserved" area. Faced with the choice of having to expand doctor-producing US facilities (which would augment the supply permanently), the American Medical Association preferred the alternative of creating a segmented market and a policy of imports that could be terminated by lobbying when necessary.

The Great Society program carried enough moral weight for the politicians then to overcome entry-restricting lobbying demands. With the political attention being lavished on healthcare reform today, would it be too much to expect that our reform-minded politicians do the same?

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Comprehensive healthcare in US can be realised

Print

Published: December 23 2008 02:00 | Last updated: December 23 2008 02:00

From Prof Jagdish Bhagwati and Mr Sandip Madan.

Sir, In his characteristically insightful fashion, Clive Crook (**"The long road to healthcare reform"**, December 15) alerts us to the problems that await the likely approach to comprehensive coverage of healthcare by Tom Daschle, the incoming US secretary of health and human services, as suggested by his recent book on the healthcare crisis.

But the fact that Governor Mitt Romney's similar reform in Massachusetts ran into the difficulty of finding doctors and other healthcare workers for the newly insured, and that Governor Arnold Schwarzenegger had to abandon similar efforts in California because of high costs, raises the question of why Mr Daschle and President-elect Barack Obama have not yet recognised that the systematic and comprehensive embrace of international transactions in medical services can make a big impact on both these problems.

Today, many foreign hospitals and physicians offer a world-class service for a fraction of the cost in the US. Expensive yet standard procedures with short convalescence periods, including heart operations and joint replacement surgery, are candidates for such treatment abroad.

By our estimates, 30 such procedures, costing about $220bn in 2005, could have been undertaken abroad. The "import" of medical services in just a quarter of those cases would have implied a saving in medical expenses of between $40bn and $45bn.

But the scarcity of medical professionals is equally crippling. Under President Lyndon B. Johnson's Great Society, a selected class of foreign doctors were allowed to "stay on" provided they worked for specified periods in under-served areas. The time has come to expand such programmes. We have recently suggested several ways this could be done, while amending the US immigration policy accordingly.

These programmes, "exporting patients" and "importing doctors" as one of us proposed almost 15 years ago, are now essential if comprehensive coverage of healthcare is to become a reality rather than simply an ineffective reform seriously undermined by shortages and high costs. Once you add the savings from online diagnostics and the reduction of administrative costs (conservatively estimated currently at $500bn annually) through further outsourcing of administrative services, the prospects for easing scarcities and costs are even more inviting.

But all this will involve getting over the jaundiced view of international trade that afflicts most of the new Democrats. Will they choose de facto protectionism, masquerading as "fair trade", and sacrifice the invaluable opportunity presented by possible international transactions in medical services? Or will President-elect Obama truly give us genuine leadership and have Mr Daschle override the anti-trade and medical lobbies that hold up effective healthcare reform?

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Free trade would energise US healthcare

Print

Published: June 1 2009 03:00 | Last updated: June 1 2009 03:00

From Prof Jagdish Bhagwati.

Sir, **Krishna Guha**'s excellent article (May 28) on Barack Obama's plans for healthcare reform makes it clear that the president's economic and medical advisers continue to ignore altogether the most important way in which comprehensive coverage could be facilitated by significant saving in costs and by easing the shortage of doctors and medical personnel: namely, a full-throated embrace of international transactions in medical services.

Sandeep Madan, of Global Healthnet, and I have argued extensively that costs (whose fiscal magnitude crippled the attempt to introduce comprehensive coverage in California) can be reduced massively with augmented measures to "export patients" and to outsource claims processing and customer service. These savings exceed those claimed with fanfare for the technocratic Obama proposal to computerise medical records.

Again, "importing doctors" and medical personnel represents an excellent way to alleviate shortages (such as those that have afflicted comprehensive coverage in Massachusetts). Independently, Fredrik Erixon of the European Centre for International Political Economy has long advanced similar proposals in the European context and recently extended his arguments to the Obama administration's omissions in this regard to date.

Perhaps the administration's de facto antipathy to trade lies at the bottom of this glaring omission; if so, it is costing the president's major reform agenda!

But perhaps it is also because of the American Medical Association's fear that international transactions in medical services will harm the earnings of their members. But, in that case, what happens to the president's frequent claim that his administration will bring an end to the lobbying as we knew it?

Professor Jagdish Bhagwati,
Council on Foreign Relations,
New York, NY, US

To:

Letters to the Editor,
The New York Times

June 16, 2009

From:

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Dr. Sandip Madan
CEO, Global Healthnet

Dear Editor:

We have written extensively, deploring the total neglect by the Obama Administration of the ways in which resort to international transactions in medical services can produce enormous saving in costs (e.g. through "exporting patients") and relief of scarcity of medical personnel (e.g. through "importing doctors"). These are problems that have plagued policy initiatives for comprehensive medical coverage in California and in Massachusetts respectively.

The neglect owes partly to the lobbying by doctors who fear for the loss of their earnings as "trade" breaks out. We were therefore not surprised that, in- their Op.Ed. article, "Overseas, Under the Knife", (June 10, 09), Dr. Arnold Milstein and associates greatly underestimate the gains from exporting patients, while hugely overestimating the risks.

They claim that the offshore surgeries cost 20-50% less abroad than at low-cost American hospitals. Actually, we estimate them as 50-80% lower. For example, a heart valve replacement, even at "negotiated" rates, costs over $100, 000 in a quality US hospital, half that in a cheap one, and only $10,000 in an accredited "five star" hospital in India like the Asia Heart Institute or Apollo in Mumbai. Again, they are way out of line in asserting that only 2% of US spending is on exportable procedures. But we have identified 30 procedures which are already being exported; and the US spending on them was about $270 billion in 2006, or 13% of the total.

Using scare tactics which the American Medical Association has often used to restrict entry, they also play up the dangerous consequences "if an American abroad falls victim to negligent care". In fact, partly because of the fear of such propaganda, foreign hospitals take pretty good care of the foreign patients. As it happens, the overall US mortality rate for heart bypasses is over 2% whereas that in the Indian hospitals cited above, it is 0.6 to 0.8%.

Again, they write that "people having surgery done half way around the world are far from their regular doctors as well as friends and family". Americans are not exactly overwhelmed by families and friends in attendance at surgeries; and often, a spouse or partner will travel to attend a surgery in Bombay and stay to see the Taj Mahal and Rajasthan Palace hotels made famous by James Bond in Octopussy! Besides, foreign hospitals work responsibly with US doctors "back home" to ensure that proper after-care is provided.

President Obama can ill afford to ignore this important way of using "trade" to moderate an otherwise gigantic cost problem on his hands. It will clearly require taking on the medical lobbies. But did he not promise that he would not let lobbies stand in the way of his agenda?

Yours sincerely,

Jagdish Bhagwati
Sandip Madan

Part II: Earlier Writings which led to GATS

By contrast to Part I writings in mid-2000s on Healthcare Reform, which have been ignored by the U.S. policymakers, my paper in The World Economy in 1984 non Services, and on the fundamental division which I made there between those where proximity of suppliers and users is required (which was further explored and sub-divided by Gary Sampson and Richard Snape a year later in 1985 into Modes 2-4) and where it is not (which led to Mode 1), had dramatic success. The resulting division among Modes 1-4 got built into GATS in a decade!

I also wrote shortly thereafter also about Exporting Patients and Importing Doctors, which relates to Modes 2 and 4. These ideas, developed almost 15 years ago, have also come to be important and have a bearing on what I (and my co-author Dr. Sandip Madan) have written in Item 1 in Part I above.

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38 Free Trade Can Cut Health Costs

While the experts working on Hillary Rodham Clinton's task force on health care have now been identified, the ideas they are exploring have not. But if leaks and informed guesses are any guide, an obvious and significant way of containing explosive health care costs is being ignored. International trade in goods and services often lowers prices substantially. It will do the same for medical services.

Both doctors and patients increasingly move across borders. Most Americans and nearly all Britons have been treated by foreign-born doctors at some time. Foreign patients often seek out top-level specialists at the Mayo Clinic and Sloan Kettering here and in Harley Street in London. India has set up hospitals that work overwhelmingly with patients from the Middle East. The influx of Soviet doctors and the abundance of local ones has led Israel to attract foreign patients as well. Affordable prices and attractive facilities thus seduce patients today across nations, taking them to foreign providers of choice.

If only the necessary institutional changes are made, there is clearly tremendous potential to lower medical costs by importing more foreign doctors and exporting more patients.

Originally published in the *Journal of Commerce* (April 8, 1993).

The entry of more foreign doctors wouldn't require anything as formidable as easing immigration restrictions. Temporary visas for providers of professional services can be made available readily to qualified doctors from abroad; indeed, that's already happening for most services and for many professionals who work with multinational corporations.

After a decade of trying to open foreign markets for other professional services—legal, advertising and accounting among others—we know that professional organizations in some countries impose restrictions on the export of other nations' services. These restrictions, ostensibly in defense of certain "standards," are a real restraint on the export of professional services. Appropriately, these certification requirements have been the subject of scrutiny by trade negotiators and the targets of market-opening efforts.

The same must be done if we are to open our medical markets to imports. The effective restraint on the entry of foreign doctors comes from an examination conducted by the American Medical Association to certify foreign medical graduates.

Economic research strongly suggests that the AMA makes this examination tougher when doctors' earnings are under pressure, thereby reducing the pool of eligible applicants for visas. Limiting entry eases competition among doctors and keeps their earnings—and the cost of health care—higher than it might otherwise be.

If the administration is interested in importing more doctors, the foreign medical exam must be reviewed by an agency that is not a creature of the AMA. Moreover, international agreements to encourage mutual recognition of medical qualifications—as now exist for many professions within the European Community—will have to be seriously considered if importing medical services is to become an effective means of cost containment.

A less obvious way of using trade in medical services to lower costs is to take patients where the inexpensive doctors are. The current differences in surgeons' fees between the United States and English-speaking India, for instance, are enormous. Open-heart and neurosurgeries by the best Indian surgeons (many with advanced training abroad and vast experience at home), cost about one-tenth of what the average American surgeon charges. Similar differences occur across the entire range of surgical procedures.

If the patient can travel, there is much to be gained by the United States and by countries that produce excellent doctors—such as India and the Philippines—from encouraging the new U.S. health care program to exploit this "trade-in-service" opportunity fully.

Wouldn't patients worry about the quality of care? No, not if a convincing comparison could be made with facilities here. Then again, the hospitals abroad into which our insurance and HMO programs would be tied under this proposal could be operated under maintenance contracts with our own health management service organizations which, in fact, were major earners in the Middle East.

Air fare would be only a minor cost if such a program were launched; bulk buying of travel would be at bargain prices. Imagine what this also could do for airlines tied into the program.

The expansion of medical facilities under such a plan, especially in countries like India and the Philippines, also would do wonders for local people by providing spillover public-health effects. That's important since so much of our bilateral foreign aid is now dominated by security concerns. Even the International Monetary Fund and the World Bank are under pressure to turn on the spigot for the former Soviet Union instead of for developing countries. So any policy that assists developing countries, even if inadvertently, is an extra dividend.

Exploiting trade in medical services in this fashion is so appealing that it is a puzzle why the White House appears to have missed it. The explanation lies perhaps in the administration's obvious fixation with manufacturing, high-tech generally and automobiles, and its obvious distaste for services, which often seem associated with the easy amassing of fortunes by Wall Street's takeover tycoons during the 1980s. The resulting "commodity fetishism" is a folly we cannot afford.

Splintering and Disembodiment of Services and Developing Nations

Jagdish N. Bhagwati

SERVICES have for long attracted attention from economists. The classical economists, from Adam Smith down to Karl Marx, were interested in them, as distinct from goods, for the purpose of defining productive labour. The Marxist prescription, and faithful Communist practice, to omit them from national-income accounts is a direct consequence of this interest.[1]

More recently, services have attracted attention from other perspectives. Following on the work of P.J. Verdoorn,[2] elevated to the Verdoorn Law, Nicholas Kaldor argued forcefully that manufactures (goods) were characterised by greater technical progress than services[3] and in the United Kingdom he successfully seduced a Chancellor of the Exchequer, James Callaghan, into adopting the Selective Employment Tax in 1966 (abolished in 1973). The notion that services are generally unprogressive has also been the basis of less dramatic, but influential, explanations by other economists of the phenomenon that many of them, such as haircuts, are cheaper in the poor countries, among those economists being Bela Balassa,[4] Paul Samuelson[5] and Irving Kravis, Alan Heston and Robert Summers,[6] with an alternative 'factor-endowments' explanation that I recently proposed which altogether abstracts from the approach based on progressivity.[7]

Then again, concerns have been raised by some that the shift to a 'service economy' in the rich countries imperils jobs by displacing labour through technical change: a contention which sits ill at ease with the concern of Professor Kaldor and others that services are generally unprogressive. But both contentions equally seek to propel policy in the direction of promoting 'reindustrialisation'.

Finally, services have come to the forefront in recent discussions on the reform of the General Agreement on Tariffs and Trade (GATT) since the United States Administration has been trying to extend the scope of the GATT, traditionally

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confined to trade in goods, to trade in services. While the principal lobby behind these efforts is constituted by the financial and 'high-tech' communication industries, and the conventional definition of services in balance-of-payments accounting evidently does not correspond to that in national-income industry-of-origin accounts, the American position has prompted a negative response from the developing countries in part because many of them assume that they must have a comparative disadvantage in services.[8]

That services have become a major focus of attention is beyond doubt. Equally, it is clear that services are a nebulous concept, frequently embracing activities which have differential and opposed characteristics, with respect for instance to their technical progressivity and labour intensity. A closer look at what constitutes services, at their relationship to goods and at the dynamic process which defines and governs this relationship, and hence the characteristics of services, is therefore necessary.

In this article, I propose to argue that, given the (appropriate) way in which we distinguish goods from services, technical and structural change defines a continuous process during which services splinter off from goods and goods, in turn, splinter off from services. Furthermore, this 'splintering process', insofar as goods emerge from services, is associated with a 'disembodiment effect' such that the services, initially embodied in the person providing them (for example, Placido Domingo singing at the Metropolitan), and requiring the physical presence of the provider of the services at the time of use, are disembodied as a result of technical change and encapsulated into what we call goods (such as the invention which brings Placido Domingo *via* records — that is, goods — into our homes). I shall further argue that the services-from-goods splintering process generally yields service activities which are technically progressive and possibly capital intensive, whereas the goods-from-services splintering process, reflecting the disembodiment effect, generally leaves behind a residue of service activities which are technically unprogressive and generally labour intensive.

Moreover, I will propose that the disembodiment effect applies equally to services becoming available over distances without the physical presence of the provider of these services where used, *even though no transition in consequence to goods is involved*. Thus, while records and books represent the disembodiment effect resulting in goods where earlier we had services of theatrical performances and lectures, the practice of transmitting engineering services over the wire from Houston to Paris and medical diagnoses over the computer from New York to the Adirondacks represents the disembodiment effect which leaves the services sector intact. I shall argue, however, that this intra-service-sector disembodiment effect has important implications (i) for comparative advantage, (ii) for the question of extending the GATT to trade in services and (iii) for immigration restrictions.

What are services? And how should they be distinguished from goods? These questions, as T.P. Hill remarked in a perceptive article on the subject,[9] preoccupied classical economists, including Adam Smith[10] and John Stuart Mill.[11]

SERVICES VERSUS GOODS

At one level, all value added in an economy comes from services; that is, from factor services. What is produced, and carries an explicit or implicit valuation, is automatically a return to some factor for its services. But this truism is not what concerns us here.

What concerns us here is the attempt at distinguishing services from goods from the viewpoint of either *production* or *consumption*. The former is customarily described as the breakdown by industry of origin; the latter is often christened the breakdown by share of final-demand services in national expenditure. The two approaches naturally do not yield identical coverage since, as is evident, the latter refers only to final-demand services and would exclude services, however defined, which are produced for intermediate use.

While the definitions of services in practice are nebulous — and are allowed to embrace at times even governmental enterprises, which may be producing anything except services, simply because governmental outlays are automatically included as service expenditures — one can attempt to identify certain principles that underlie the distinction between services and goods.

As Professor Kravis has noted,[12] these principles, inferred from received practice, suggest that the working definition of services is that they are generally non-storable. As Professor Hill has argued, 'the fact that services must be acquired by consumers as they are produced means that they cannot be put into stock by producers. Because the only goods which cannot be put into stock are highly perishable goods, the impression has been formed that services must also be perishable, but this analogy is totally false. The inability to stock services has nothing whatsoever to do with their physical characteristics: it is a logical impossibility because a stock of changes is a contradiction in terms.'[13]

At the same time, Professor Kravis notes that yet another criterion often used to identify services is that their production involves a 'relatively low value of commodities embodied in them as intermediate inputs. Starting with almost any plausible definition of services, it will be found that the proportion of value added to gross output is high in services and that the proportion of intermediate inputs in the form of services is high relative to commodity inputs. Commodities to a much greater degree involve the further processing of physical things, so that commodity inputs loom large in value added and even larger among intermediate inputs relative to service inputs.'[14]

Still another characteristic of services, as defined from the standpoint of industry of origin, is that they must be transacted between separate units.

Professor Hill goes so far as to argue that 'a service may be defined as a change in the condition of a person, or of a good belonging to some economic unit, which is brought about as the result of the activity of some other economic unit, with the prior agreement of the former person or economic unit'.[15] Whether one accepts the qualification about the voluntariness of the transaction,[16] it is evident that the normal practice, indeed, is to classify services as such only if they take place between different economic agents. As I note below, following on Professor Kravis's interesting observations, this means that industry-of-origin breakdowns between services and goods can change simply because of intra-unit transactions changing to inter-unit transactions, with no real change in the overall structure of the economy having taken place.

All these characteristics, in one form or another, have definitely influenced the way national-income and related statisticians have been classifying services. To see more clearly what are the services we customarily talk about, note that a typical classification on the share of services in final expenditures on gross domestic product (GDP) breaks them down into: housing, medical care, education, hotels and restaurants, public transport, communication, recreation, barber and beauty shops and government. On the industry-of-origin side, a typical classification, though, shows services to be: electricity, gas and water, trade, transport, storage and communication, finance, insurance and real estate, personal services and governmental services.[17]

We have here, therefore, in spite of the relative simplicity of the various criteria used to distinguish services from goods, a complex of activities that come conventionally under the rubric of services. What I propose to do now is to consider how the dynamics of technical and structural change keeps shifting this kaleidoscope and to gather some insights therefrom into orthodox questions relating to the progressivity of services and comparative advantage in them.

'SPLINTERING PROCESS' AND 'DISEMBODIMENT EFFECT'

As economies grow or change their structure, technical change and economies of scale interact to splinter services from goods and goods from services.

Services from Goods

A principal reason why services splinter from goods is simply a consequence of the way industry-of-origin services are identified. Any intra-firm transactions, even when they partake of the nature of services otherwise so defined, are automatically classified as part of that firm's output. If the firm is producing goods, then such transactions are classified as part of the value added in the goods sector. For instance, if a car factory has a paint job done on the premises using its own labour and capital, that is a part of car production. If the paint job, however, is farmed out to another firm, then the paint job is classified as a service. This is seen even more dramatically if one considers transport or accounting within and outside the firm. Within a firm, producing goods, it would all go into goods production, whereas when purchased from outside the value added from these activities would classify as services.

Thus we get the remarkable phenomenon that as specialisation emerges owing to economies of scale, and service activities are taken out of the firm and become part of inter-firm transactions, there will be a shift in the relative proportions in the production of goods and services in favour of the latter. Two consequences follow immediately.

First, since specialisation will reflect economies of scale, these services will tend to be seen as technically progressive — unless, of course, the economies of scale which prompted specialisation outside the user-firms simply stop at the stage at which such specialisation ensues! Hence, I should expect that the services which emerge from this type of splintering process from goods will tend to be progressive rather than technically stagnant; they are part of the dynamic process of change in the economic system.

Second, since this source of the growth of services simply reflects specialisation outside firms of activities that were already a part of goods production, it is independent of any *demand* influence such as, say, the growth of services reflecting a high income elasticity of demand for services. Thus, in explaining why services grow relative to goods, this explanation will work if we are looking at the industry-of-origin shares; it will not work if we are looking at final-use shares. Professor Kravis has used this distinction precisely to reconcile his findings that 'the "real" share of spending on aggregate services is not very different between poor and rich countries'[18] and that, at the same time, the share of service industries in production and GDP is significantly higher in the rich than in the poor countries.

Goods from Services

But if services splinter off from goods in the manner described above, goods typically splinter off from services. In this instance, though, they leave behind a residue of unprogressive services.

Consider, then, the example of Luciano Pavarotti. When the gramophone was invented, there was in fact a tremendously sharp technical change in the service activity called 'musical services'. But what happened in the classification of goods and services? Gramophones and records are 'goods' and the technical change simply resulted in a new industry which goes into the goods sector. Thus we have been left with the *ex post* observation that the 'musical services' industry is technically unprogressive and also highly labour intensive in general. If technical progress in traditional service industries, such as music, lecturing *et cetera* (mostly final-use services), indeed takes the form where the service is 'disembodied' from the physical presence of the provider and embodies those services in goods which can then be bought in the market place, then we have a splintering process where technical change simply creates new goods that tend to displace the services from which they grew and where technical change therefore leaves behind, in the services sector, the labour-intensive and 'unprogressive' component of the pre-technical-change sector.

The disembodiment effect that characterises technical change creating goods from services is accordingly responsible for a class of services where progressivity is generally considered to be low. We then have this paradox: that technical progress in these sectors itself creates the outcome that, given the way these sectors are defined, they wind up technically stagnant!

Moreover, the two different splintering processes tend to divide services into two classes as far as progressivity is concerned: the services-from-goods process tends to create progressive service industries, whereas the goods-from-services process tends to create (a residue of) unprogressive service industries.

Other Arguments

I should also add that the traditional British notion that services are unprogressive appears to have been fuelled not just by the Verdoorn statistics but also by casual empiricism. Contrary to the philosopher of science Thomas Kuhn, I believe that many theories can be, and occasionally are, a reaction based on serendipity and casual observation rather than a result of growing crisis as 'contradictory' facts accumulate and embarrass the existing paradigm. This certainly seems to have been true of Newton's Law of Gravity and of Einstein's Theory of Relativity (where I side with the views of another celebrated philosopher of science, Gerald Holton). And it holds, in the present instance, I think for British economists such as Professor Kaldor. It is not hard to believe that they were influenced by the fact that, as they stepped out of an Oxford or Cambridge college in the early 1950s, they ran into the little post office and the little shop often run by aged folk and selling Cadbury's chocolates for sixpence: both supremely impressive examples of low productivity and absence of technical change to the naked eye! It was no wonder that these casual, but continuously reinforced, impressions would produce the view that employment must be shifted out of services into the modern and progressive goods industries, if need be by a tax on employment in services. The astonishing thing, but not altogether surprising to those who know Britain, is that this viewpoint got translated into the Selective Employment Tax, with exemptions of course for the High Table services provided to 'Oxbridge' dons!

As it happens, governmental services, presumably because of incentives related to bureaucratic and political aspects of these services (and, indeed, of governmental activities producing goods as well in many instances), do seem to be subject to unprogressivity. Kenneth Galbraith's colourful admonition against 'Post Office Socialism', to spur India's massive public sector into more efficiency and profits, gets to the heart of the problem here.

But the retail sector raises different issues. Here, the fact that retailing has gone from the small shops and scale to innovative organisations, as represented by Sears Roebuck for instance, itself suggests the obsolete nature of thinking based on the early observations of the British scene. The same observation applies in yet greater degree to transport, where even the nineteenth century witnessed tremendous technical advances which had a profound impact on world commerce and income, with trade coming to be seen as the 'engine of growth'. Again, similar technical advances have continued in varying but impressive degrees in the modern communication industries and, too, in related service industries such as finance and banking. In these service industries, the rates of technical change cannot have been less dramatic, on average, than those in the goods industries, on average.[19]

DISEMBODIMENT EFFECT: CONSEQUENCES FOR COMPARATIVE ADVANTAGE AND GATT EXTENSION TO SERVICES

Let me return, however, to the theme of the disembodiment effect, for this idea can be pushed in yet another pertinent direction. With rapid technical change occurring in the information and communication networks, it seems increasingly clear now that the performance of a number of services, which would have required the physical presence of the provider of the services where they are used, is no longer critically dependent on physical presence. Traditionally, as just argued, technical change in services has occasionally taken the form where this 'disembodiment' has taken the shape of the services in turn becoming embodied in goods, with consequences which have just been analysed. But we must increasingly contend with the fact that the disembodiment now takes place in a manner where services are simply 'transmitted over the wire' to the users. This was brought home very clearly in the celebrated case of Dresser Industries which got into the middle of the conflict between the opposed policies of the Mitterand Government of the French Republic and the Reagan Administration in the United States in regard to sanctions aimed at the construction of the Soviet pipeline to Western Europe. Dresser's Paris branch was ground to a halt simply by the Reagan Administration ordering the group's headquarters in the United States to terminate engineering and other service and information flows from Dallas! Thus on 'trade wars over data' an article in the *New York Times* in March 1983 read:

'Each day, from offices and construction sites in 100 countries, employees of Dresser Industries tap into the company's central computers in the United States. Through a complex network of terminals and satellites, the data base spews forth a torrent of up-to-the-minute design information, financial data, personnel files and inventory listings — all crucial to operations of the giant oil and gas equipment maker.

'But for a few weeks of corporate agony last August, President Reagan cut Dresser's computer lifeline. To enforce his sanctions against companies building the Soviet Union's trans-Siberian pipeline across Western Europe, Mr Reagan ordered the Dallas-based company to end all technical communications with its French subsidiary, which was manufacturing compressors for the project.

'"We had no choice," recalled Edward R. Luter, senior vice president for finance. "Somebody in Pittsburgh," where Dresser's data base was then situated, "flipped the switch and suddenly Dresser-France was cut off." Almost immediately, an Australian company terminated a $3 million order with Dresser-France, realising that without access to the central data base the company was virtually paralysed.'[20]

Evidently, technical revolution in the information and communication industries, which seems to be the cutting edge of high-tech industries today, implies that what I have christened the 'disembodiment effect' is an increasingly important phenomenon. But, if this is indeed so, then we must look in a fresh light at the whole issue raised by the United States of extending the GATT to trade in services. The lobbying for this extension has come from financial circles, with American-based multinational enterprises interested in sales of services (including supportive services on durables) through establishments abroad also playing a major role. The result has been that many developing countries have looked upon the position of the United States, as possibly American negotiators themselves have, as being primarily to support American interests. And, since trade negotiations are unfortunately conducted on the perverse assumption that one's tariff reductions are a loss rather than a gain, developing countries have felt it necessary to protect themselves by objecting to the effort of the United States. I should add that this position has not been universal among the developing countries; ones such as Singapore and Hong Kong, which have relatively open doors for multinational enterprises in areas such as finance and insurance, feel that they, too, can compete effectively in these activities and would not mind if the GATT was extended to trade in services.

But if one realises that services will increasingly be disembodied in the manner discussed here, then it is possible to argue that the more advanced developing countries, the newly industrialising countries, which are abundantly endowed with skills, may well find a new comparative advantage opening up in the over-the-wire transmission of their skilled services! This has already happened with respect to software. It could happen, *à la* Dresser engineering services, with data being transmitted to users in overseas locations for engineering, medical and a host of other skilled services. Thus the newly industrialising countries may well find that there is something for them, too, in the GATT being extended to trade in services — provided that the extension is truly to services of all kinds.[21]

The implication of such technical developments, already on their way, is fascinating also for immigration policy. Hitherto, it has always been possible to restrict the inflow of skills by regulating the relative composition of skilled and unskilled labour. At least, *ex ante*, such a composition is sought to be regulated, although illegal immigration often blurs the outcome. If skilled immigrants are competitive with domestic skilled and middle-class labour, then one can protect the latter by reducing the skilled immigration. But if the services of skilled foreigners can come in over the wire, without their personal presence being strictly necessary, then you have a real problem on your hands, especially if the GATT is revised to say that services must flow as freely as goods! The disembodiment effect is thus potentially of tremendous significance for trade and immigration questions, opening up possibilities that are truly revolutionary in the way we must begin to think about these questions in the already-foreseeable future.

Incidently, the implication I have drawn for immigration policy, in the context of the demand to extend the GATT to trade in services, is very different from the relationship with immigration policies which has been drawn by many critics of the American position in GATT deliberations. The position of the United States has been regarded as self-serving and hence untenable because immigration restrictions prevent developing countries from exporting their manpower to the developed countries, so that the services of these people are, in a real sense, not subject to free trade. To open up the GATT to trade in services that interest the United States is therefore unfair and the American position therefore somewhat 'hypocritical' in a world regime of immigration restrictions.[22] I feel now that this position, which was explicitly adopted in argumentation by some spokesmen for developing countries at the GATT ministerial meeting in November 1982, is inappropriate.

Basically, one has to draw a distinction between services as embodied in the supplier of the services and requiring their physical presence where the user happens to be and services which can be disembodied from the supplier and provided without a physical presence being necessary. I would, indeed, like to see a freer flow of services embodied in people; that is, an easing, preferably even a dismantling, of immigration restrictions.

Unfortunately no country in the world, *including* developing countries, will contemplate a world without immigration restrictions. This is certainly one of the unfortunate concomitants of national sovereignty, as seen in the twentieth century, which witnessed the rise of national immigration legislations. It seems to me, therefore, to be the wrong kind of tactic to invoke immigration quotas in the context of the demand for freeing (disembodied) services from restrictions: immigration restrictions apply rather to embodied services and, in any event, developing countries would not dismantle them. Besides, as I have said, the developing countries will tend to gain from such freeing of the restrictions on trade in (disembodied) services, not merely from the fact that they will be able to import such services more cheaply but also in the sense that they, too, should have some comparative advantage in certain types of services which may have a potential for very rapid growth as the Information Revolution intensifies.

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2. P.J. Verdoorn, 'Fattori che regolano lo sviluppo della produttivita del lavoro', *L'Industria*, No. 1, 1949, pp. 3-11.

3. Nicholas Kaldor, *Causes of the Slow Economic Growth of the United Kingdom* (Cambridge: Cambridge University Press, 1966) and Kaldor, 'Economic Growth and the Verdoorn Law: a Comment on Mr Rowthorn's Article', *Economic Journal*, December 1975, pp. 891-96.

4. Bela Balassa, 'The Purchasing Power Parity Doctrine: a Reappraisal', *Journal of Political Economy*, December 1964, pp. 584-96.

5. Paul Samuelson, 'Theoretical Notes on Trade Problems', *Review of Economics and Statistics*, May 1964, pp. 145-54.

6. Irving B. Kravis, Alan Heston and Robert Summers, *International Comparisons of Real Product and Purchasing Power* (Baltimore: Johns Hopkins Press, for the World Bank, 1978).

7. Jagdish N. Bhagwati, 'Why are Services Cheaper in the Poor Countries?', *Economic Journal*, June 1984.

8. Some observers have remarked that the negative response of developing countries has been prompted by a conviction that if GATT discussions focus on trade in services, many issues of deep concern to them, to do with trade in goods, will continue to be brushed aside by the major trading powers. See, for example, Hugh Corbet, 'Obstacles to Liberalising Trade in Services', in *Dawn of a New Global Economy: the World through 2000* (Bala Cynwyd, Pennsylvania: Chase Econometrics, 1984). For a discussion of how the question of liberalising trade in services was taken up in the United States, see Corbet, 'Prospect of Negotiations on International Trade in Services', *Pacific Community*, Tokyo, April 1977.

9. T.P. Hill, 'On Goods and Services', *Review of Income and Wealth*, December 1977.

10. Adam Smith, *The Wealth of Nations* (London: Strahan & Cadell, 1776) Bk I, ch. 3, my edition having been the one, with an introduction by Max Lerner, published in 1937 by Random House, New York, in its Modern Library series.

11. John Stuart Mill, *Principles of Political Economy* (London: John W. Parker, 1848), the 1909 edition, with an introduction by Sir William Ashley, being reprinted in 1961 by Augustus M. Kelly, New York; and Mill, *Essays on Some Unsettled Questions of Political Economy* (London: John W. Parker, 1844) Essay III.

12. Kravis, *Services in the Domestic Economy and in World Transactions*, Working Paper No. 1124 (Cambridge, Massachusetts: National Bureau of Economic Research, 1983).

13. Hill, *loc. cit.*, p. 337.

14. Kravis, *op. cit.*, pp. 5-6. Professor Kravis notes that all these definitions run into problems. For example, messages taken by telephone-answering firms are storable and yet they are classified

as a service activity. Again, retail and wholesale trade can hardly be called unintensive in the use of goods as intermediates unless one arbitrarily dismisses the goods distributed from appropriate categorisation as intermediates in the trade activity.

15. Hill, *loc. cit.*, p. 318.

16. One would have to treat governmental services, including collective services, as having been generated by some form of implicit social contract to make them compatible with the suggestion of Professor Hill about voluntariness (*ibid.*). Professor Hill does discuss collective services separately.

17. But the 'service' categories in the balance-of-payments accounts, and hence also to some extent in the discussions on the extension of the GATT to trade in services, are very different. For an excellent discussion of these other concepts, see Kravis, *op. cit.*

18. *Ibid.*, p. 8.

19. For a useful statistical analysis of differential progressivity among different service industries, see William Baumol, Sue Anne Blackman and Edward Wolff, 'Unbalanced Growth Revisited: Asymptotic Stagnancy and New Evidence', mimeograph, January 1984.

20. David Sanger, 'A Trade War over Data', *New York Times*, 13 March 1983, p. F1.

21. If the disembodiment effect occurs via embodiment in goods, however, the present GATT provisions would cover that.

22. This is the position which has been propounded orally by many commentators, including me, as a first reaction to American efforts on services. For a statement of similar sentiments, see, in particular, Carlos F. Diaz-Alejandro and Gerald K. Helleiner, *Handmaiden in Distress: World Trade in the 1980s* (Ottawa: North-South Institute, 1982; Washington: Overseas Development Council, 1982; and London: Overseas Development Institute, 1982).

Schubert and the Purpose of GATT Rules

Extract from an address by Hugh Corbet, Director of the Trade Policy Research Centre, on 'Prospects for Reducing Protectionism' to the Overseas Committee of the Confederation of British Industry, London, on 15 March 1984:

In their technical detail, the principles and rules of the General Agreement on Tariffs and Trade (GATT) represent a set of issues of formidable complexity, so much so that both politicians and business executives are at a decided disadvantage in discussing them with government officials. In discussions among themselves, trade negotiators often convey the impression that the GATT's principles and rules were created for their pleasure or, at least, to provide them with a purpose in life. Accounts of official discussions of proposals to tighten, loosen or otherwise amend GATT principles and rules leaves me, and a lot of other observers, with the uneasy feeling that the political economy which originally inspired those principles and rules has been totally forgotten or, at any rate, is being totally overlooked.

The situation puts one in mind of the report prepared by a well-known firm of management consultants commissioned to advise on the commercial difficulties of a famous symphony orchestra. Part of the report that was prepared dealt with a concert performance by the orchestra of Schubert's *Unfinished Symphony*. The comments of the consultants read as follows:

(a) For considerable periods, four oboe players had nothing to do. The number in this section should be reduced and their work spread over the whole of the orchestra, thus eliminating peaks of inactivity.

(b) All twelve violins were playing identical notes. This seems to be unnecessary duplication and the staff in this section should be drastically cut. If a large volume of sound is really required, it could be obtained through an electronic amplifier.

(c) Much effort was absorbed in the playing of demi-semi-quavers. This appears to be an excessive refinement and it is recommended that all notes should be rounded up to the nearest semi-quaver. If this were done it would be possible to use trainees and low-grade operators.

(d) No useful purpose is served by repeating with horns the passage that has already been handled by strings. If all such redundant passages were eliminated, the concert could be reduced from two hours to twenty minutes.

(e) Finally, if Schubert had attended to all these matters, he would probably have been able to finish his symphony.

Just as the consultants overlooked the purpose of the orchestra, so trade negotiators appear to overlook the purpose of the GATT, which is to provide a stable institutional environment for the conduct of international trade, enabling private enterprises to know where they stand *vis-à-vis* their governments, and the governments of other countries, so that they can plan for expansion or if need be for adjustment — thereby facilitating the process of economic growth.