

Taxes: Price of Civilization or Tribute to Leviathan?

Lant Pritchett and Yamini Aiyar

Abstract

There are two dominant narratives about taxation. One is taxes are the “price we pay for a civilized society” (Oliver Wendell Holmes Jr.). In this view taxes are not a necessary evil (as in the pairing of “death and taxes”) but a positive good as more taxes buy more “civilization.” The other view is that taxes are “tribute to Leviathan”—a pure involuntary extraction from those engaged in economic production to those who control coercive power producing no reciprocal benefit. In this view taxes are a bane of the civilized. We consider the question of taxes as price versus tribute for contemporary India and make three points. First, most discussions of government budgets focus on allocations across sectors and activities and discuss the accounting cost of services provided. But if the accounting cost exceeds the economic cost (the minimum at which the good or service could have been provided) then the difference can be considered “tribute.” Second, the extent to which government engages in activities which would not have otherwise been carried out at all but which citizens value then the “price of civilization” is maximized but when government budgets produce private goods at such low quality they are valued at zero (at whatever accounting cost) then most taxpayers consider this tribute. Third, the structure of social spending between “insurance” like programs which benefit all individuals at various states or stages of life and sharply targeted transfer programs determines whether most taxpayers consider taxes to fund these expenditures a price or tribute. The notion of a “compulsory purchase” versus “tax” helps elucidate this difference and sharp targeting is seen as raising the price to any given individual of a given degree of individual benefit. Taken together we argue India needs more taxes as price of civilization but less taxes as tribute, which currently dominate. There is a currently a sharp contradiction between the needs for greater revenue mobilization for India to continue its progress and provide the increasingly sophisticated “civilization” that is demanded with higher productivity and incomes and the perception of the “middle class” that most taxes are tribute. This contradiction is created by a costly and yet ineffective state the solution to which cannot be a weaker state but a better state.

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Taxes: Price or Tribute?

Little else is requisite to carry a state to the highest degree of opulence from the lowest barbarism but peace, easy taxes, and a tolerable administration of justice: all the rest being brought about by the natural course of things.

Adam Smith

It is shortage of resources, and not inadequate incentives, which limits the pace of economic development. Indeed the importance of public revenue from the point of view of accelerated economic development could hardly be exaggerated.

Nicholas Kaldor

Introduction

Historically many (proto)-states were simply groups that managed to control sufficient military power to force others to pay them *tribute*. For instance, an armed group could grab a portion of an overland trade route and then demand that all passing pay a tax. This tax was pure tribute as it was simply a forced extraction from the traveler for which the traveler received no benefit at all other than safe passage (and the main threat to safe passage was often the extractor of tribute). This form of extraction violates all three of Adam Smith's conditions for opulence as it is neither peace (as the tribute is extracted under threat of violence) nor is it an "easy" tax as the payer gets zero benefit, nor does it bring "tolerable administration of justice" for the payer. We would expect to see tribute—and especially high levels of tribute—as incompatible with development as it makes politics over the control of sovereign power simply a contest (often violent) over who controls the extraction and allocation of tribute. In many nation-states taxes (and the extractions from control of natural resources) are devoted excessively to maintaining a security apparatus and to the distribution of rents among a narrow coalition of elites and patrimonialism. In this case citizens rightly see taxes as a tribute to be avoided if at all possible and from which they receive little or no "civilization."

But at the same time the richest and most prosperous countries have the *highest* tax takes as a share of GDP. Perhaps the main feature of the 20th century has been the creation of nation-states in which the citizens control sovereign power. Colonialism was one form of the extraction of tribute that was eliminated in favor of "national" control of the state.

Democracy under rule of law was a means through which states were controlled such that rather than being regarded as subjects of a sovereign citizens were empowered and the sovereign power of the state was subjected to some modes of expression of the wishes of the citizens. Ideally in this situation taxes are the price paid for civilization. That is, citizens choose the structure of revenues sources (taxes and fees and tolls and contributions and seigniorage etc.) to generate the revenue the government needs to provide peace, a tolerable administration of justice and whatever else the citizens choose to have the state responsible for—from education to roads to health to social transfers to environmental regulation to the panoply of functions modern states perform. In this context very high levels of taxes (or

government revenue) are consistent with the “highest levels of opulence” as even very high taxes can be easy taxes if they are a reasonable price that citizens are collectively willing to pay for the civilization they bring (Lindert 2004).

In our view the key question for India is how much of the existing extractions of the governments (federal and state) are “price of civilization” and how much are “tribute”? Public debate on taxation in India is primarily concerned with India’s tax effort, and the issue of tax administration. Indeed, India has amongst the world’s lowest tax-GDP ratio. In 2013-14, India’s total tax revenue (collected by both union and state governments) stood at 17.9 percent. And unsurprisingly, public expenditure to GDP ratios too are low especially when compared with other developing countries. In 2013, for instance, India had the second lowest public expenditure to GDP ratio at 27.1 percent among the emerging economies of Brazil, Russia, India, Indonesia, China, South Africa and Mexico. Given this low tax effort, the broad public debate has focused on identifying means of improving India’s tax collection through reforms in tax administration. India currently ranks 158 out of 189 in the world on ease of paying taxes – such as improving tax administration, reducing tax exemptions and revenue forgone, introducing the Goods and Services Tax and so on. Debates on taxation have also focused on concerns related to India’s tax structure in particular the direct-indirect tax ratio. The direct- indirect tax ratio in India in 2012-13 stood at 34.2 percent while the ratio was 55.3 in Brazil and 34.4 in China. This high direct –indirect tax ratio is responsible both for the creation of complex tax instruments that have resulted in large scale tax evasion amongst the wealthy and a strong sense of horizontal and vertical inequity.

We argue that even as these debates on the nuts and bolts of India’s taxation regime gain ground, it is important to step back and contextualize the debate on taxation in the broader narrative of the politics of taxation. In fact, the debate on taxation needs to be situated within the broader narrative of the tensions between the need for greater revenue mobilization and the expansion for public expenditure and state failure to ensure “civilization.” For instance, in the debate about the shift from indirect to direct taxation there is an element of improving the pure efficiency of the tax collection process so that the tax collected per unit of administrative cost is higher combined with an element that this reform will also make the tax collections more progressive. But, to the extent that those who will bear the brunt of additional direct taxation perceived that the public monies are devoted to “tribute” rather than producing greater “civilization”—which civilization in our view rightly includes socially desirable redistribution to produce a fairer and equitable society and protect the poor and vulnerable—one can naturally expect resistance to what seems a technically desirable proposal.

While it does fit nearly the ideological left-right spectrum of politics, it is not an incompatible set of views to be simultaneously both *pro*-tax-as-price-of-civilization and *anti*-tax-as-tribute. That is, one can be in favor of paying a reasonable cost for the collective provision of needed goods and services to sustain India as an increasingly sophisticated economy that can productively employ its growing population and provide more reliable needed services and equitable justice and distribution. But at the same time this does not

automatically translate into being “pro-tax” as a large part of the existing taxes are simply tribute that generates spoils over which much of contemporary politics is contested (Bhanu Mehta 2003). Part of the paradox of contemporary India is that it needs more “civilization”—better education, better infrastructure, better administration of justice, better social protection, better health—but that much of the current revenue currently attributed in the center and state budget to those heads—education, infrastructure, police, social protection, health—is pure tribute.

An important component of “development” is that taxes-as-price-of-civilization increases as the state becomes more accountable and effective at providing services and taxes-as-tribute decreases (Pritchett 2009). However, this requires a virtuous circle of citizens engaged in the process of demanding value for money (including value for money in redistribution for the poor and vulnerable). However, once middle class citizens disengage from the utilization of publically provided services this can produce a vicious cycle in which the citizens with the potential to demand accountability disengage leaving an additional burden on the poor to not only rely on tribute laden publicly produced services but also to devote their limited time and energies and power to improving governance. This makes it harder to reach the high tax as price-low tax as tribute path to development.

Higher development is associated with higher, not lower, taxes

From Adam Smith’s quote one might assume that “easy taxes” mean “low” taxes and hence the key to development is to maintain low taxes as part of a *laissez faire* strategy overall. But the assertion that “low” taxes, interpreted as a low tax take to GDP, is a key to development is obviously empirically false, both from history and current comparisons. Kaldor (1963) in the epigram above was right to emphasize the need for public sector revenues to spark development.

Historically, Lindert’s *Growing Public* (2004) shows that the trajectory of Europe and the USA from the onset of modern economic growth around 1870 (or so) is steady economic growth at around 2 percent annum to higher and higher levels of income. This growth was associated with much, much, higher *ratios* of total tax to output. The level of spending associated with social sectors (pensions, unemployment, welfare, health) increased from around 1 percent of GDP around 1900 to a 25 percent of GDP by 2000. In Denmark social transfers (non-contributory pensions, health, welfare, unemployment, housing) were 1.75 percent of GDP in 1910 and were 28.9 percent in 2000, in France this rise was from .81 percent in 1910 to 28.3 percent in 2000. Taxes in France, Germany, Netherlands and the UK increased from 12 percent to 46% of GDP from 1910 to 2000. In the hundred years from 1910 to 2010 total government (federal, state, local) spending the USA went from less than 10 percent of GDP to over 40 percent of GDP. Lindert (2004) poses the stark question: if taxes are bad for economic growth then why did an increase in taxes by factor of three or four cause no deceleration of economic growth?

It is also well-known that more “developed” economies—measured either in purely economic terms GDP per capita or economic sophistication or as measures of human development of any kind—have higher, often much higher, levels of government spending to GDP than the poorer economies (Besley and Persson 2013). The latest World Development Indicators report that in the High Income countries in the Euro Area central government revenue to GDP is 35.1 percent whereas in low and middle income South Asia it is 11.9 percent (11.8 percent is reported for India) and in low and middle income East Asia the ratio 12.8 percent. So central government revenue to GDP is at least *three times* higher in the rich countries in Europe (and in some countries almost four times—e.g. France 42.7, Netherlands 40.8, Norway 49.5). Of course just “central” government can be a misleading indicator of revenues or expenditures in federal countries, even in a supposedly “small” government country, the USA, the total of federal, state and local spending is over 40 percent of GDP.

The tricky question is how can “high” taxes also be “easy” taxes consistent with prosperity and high levels of human development (however measured)—and conversely how can even “low” taxes be “hard” taxes that are an obstacle to development.

I. Price or Tribute: Accounting Cost versus Economic Cost

The first conceptual point we wish to make is that one cannot determine what of public expenditures are “price” and what “tribute” without examining both accounting and economic costs. Excess costs of producing government services, particularly when they flow directly to rents to specific groups and individuals, are not “price” even if they are attributed in an accounting sense to a desirable good or service. If it costs the government 2.5 times the *economic* cost to produce a year of schooling then this excess cost is conceptually tribute, not price of civilization.

A) Accounting cost and Economic Cost: Conceptual

The word “cost” is used in two fundamentally different ways, which naturally leads to confusion. The most common use of the word “cost” in discussions of government budgets is what we will call *accounting cost* which is descriptive and (mostly) backward looking. The accounting cost just adds up all the *ex post* realized costs attributed in a budget to a given activity or project or service or production.

Economists use the word “cost” completely differently as “cost” is not a number but a *function*. The *economic cost* is the *minimum* cost at which a given quantity of a specific good (which includes a specification of the quality) can be obtained.

The *accounting cost* can be decomposed into three components: *economic cost*, *productive inefficiency*, and *extracted rents*.

This three-fold distinction is best illustrated with examples.

Take a year of primary schooling of a given quality (defined by levels of learning).

There is an *economic cost* of that schooling which is the *least cost* in terms of wage bill, recurrent inputs (e.g. chalk, textbooks) , and capital costs (e.g. depreciation on buildings) for which a year of schooling (or, redefined, a year's worth of learning or education) can be obtained.

The *accounting cost* of a year of schooling could be higher than that for many reasons and we want to conceptually decompose those into two categories: *rents* and *inefficiency*.

The definition of an *economic rent* is a price paid for something over and above the price necessary to call that something into existence. So suppose that one could pay a new teacher Rs 4,500 per month (inclusive of all wages, benefits, etc) and for that compensation a teacher would be willing to exert the skills and effort to produce a year's worth of learning. Now suppose that a law required that you pay Rs 25,000 a month for a teacher. This would be part of the *accounting cost* of schooling but it would not be part of the *economic cost* of schooling, rather it would be an *extracted rent* paid (in the first instance) to the teacher--the difference between what a teacher of adequate quality and exerting adequate effort could be paid and what they by fiat had to be paid. (The teacher may have some or all of this rent extracted so the true "incidence" of the rent is not determined by the fact that it accrues in the first instance to the teacher). In this simple example the *accounting cost* is the *economic cost* plus a *rent*.

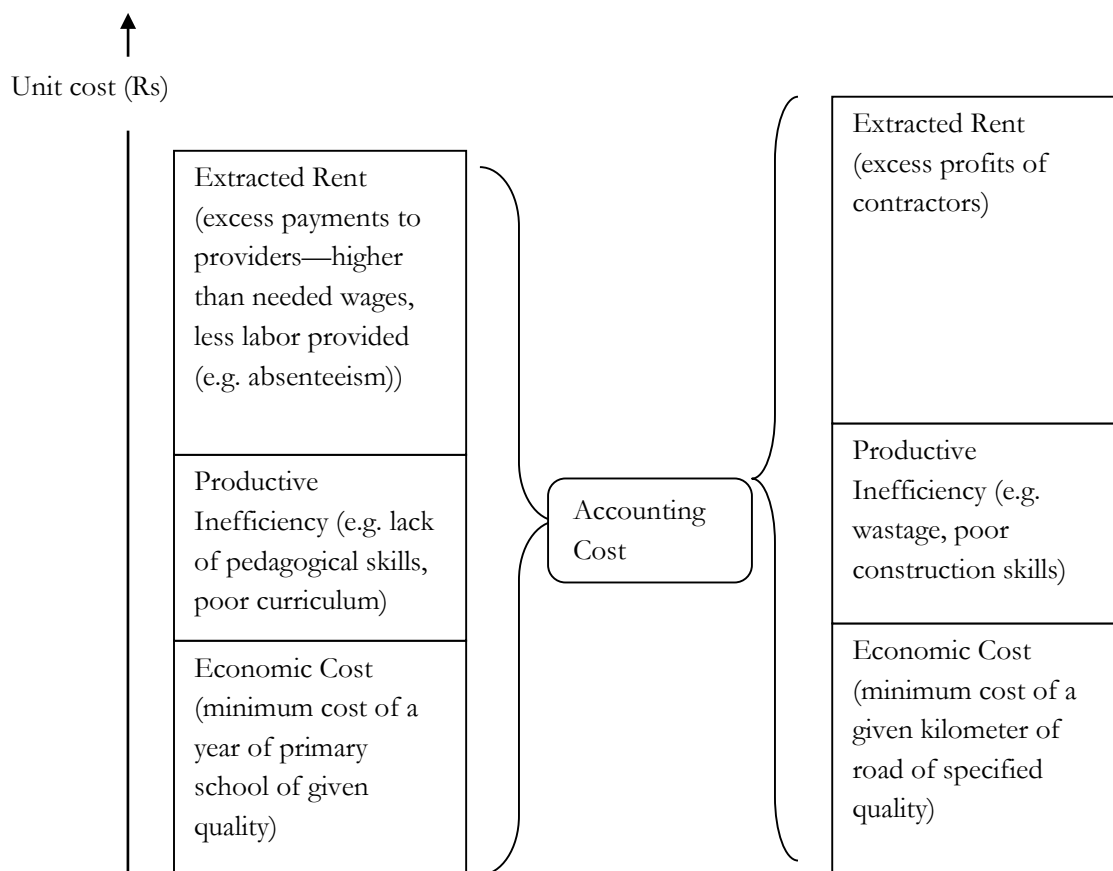
A different example is the construction of a kilometer of road. Suppose that using some mechanism like an auction one could elicit the information of what the *lowest possible cost* of building a kilometer of road (of given quality, in particular location). That cost might turn out to be Rs. 100,000 per kilometer. Now, knowing that one could build the particular stretch of road for Rs. 100,000 per kilometer a bid is accepted to pay someone Rs. 250,000. Then ex-post the *accounting cost* of the kilometer of road will be Rs. 250,000 which is Rs. 100,000 in *economic cost* and Rs. 150,000 in *rent*.

We want to make the distinction between *extracted rent* and *productive inefficiency*. Both of these are *inefficiency* in the sense of a gap between the accounting cost and the economic cost. The difference is whether the inefficiency benefits (financially or otherwise) increases the well-being of the supplier or not. That is, if a road contractor just overcharges for the materials and labor they provide this is an inefficiency from the point of view of the state as buyer of the road but is a direct monetary benefit to the contractor (which they may then share in a variety of ways with political or bureaucratic agents of the state) as an *extracted rent*. On the other hand if the contractor just, not knowing efficient road production techniques has too much wastage of gravel this *productive inefficiency* benefits neither the state as buyer nor contractor as seller.

This three-fold conceptual decomposition applies similarly in the primary school example. The payment of excess wages as extracted rents to teachers is an inefficiency from the point

of view of the state as buyer but goes directly to the teacher as benefit and is *extracted rent*. In contrast, if the teacher is working as hard as they are able but lacks the appropriate pedagogical skills or is attempting to teach an “overambitious curriculum” (Pritchett and Beatty 2012) then this leads to an inefficiency as it would, in principle, been possible to get more education for the given cost but this *productive inefficiency* did not benefit anyone.

Figure 1: Three-fold decomposition of accounting cost into *economic cost*, *productive inefficiency*, and *extracted rent* with examples from primary education and roads



The two sources of excess of accounting cost of public sector production of capital goods (e.g. roads) or services (e.g. education, health) over economic cost “rents” and “productive inefficiency” have very different politics.

The elimination of productive inefficiencies can, potentially, have a “win-win” politics. That is, if the source of excess cost is just that producers are unaware of more productive techniques then training or capacity building or choosing more effective producers could be a boon to taxpayers—by either reducing the taxes paid per service received or increasing the

services for a given amount of taxes—and is of indifference (or perhaps even a gain) to the providers/producers.

In contrast, the excess of accounting over economic cost that is due to extracted rent, by our definition of extracted rent as an excess cost to the state as buyer that benefits producers, is bound to be a distributive struggle with winners (taxpayers) and losers (rentiers).

The best way to think of extracted rents is that these are not a “price of civilization” but rather the opposite, they are pure “tribute” paid by taxpayers to an organized body that has sufficient political power to force the rest of society to pay this tribute.

B) The “capitalization” of rents

Before moving to empirical examples of the potential magnitudes of extracted rents we want to make the distinction between windfall rents and rents that have been “capitalized.”

One illustration of this is water allocations in California. In some parts of California large dams were built that provided water for irrigation. This water, when newly available, was allocated to certain plots of land. Obviously having irrigation water allocated at a low price raised the productivity and profitability of that land. The person who owned that land when it first received the windfall gain (that could reasonably be called a “rent” because the water was supplied as a public subsidy priced below long-run average (economic cost) might have received some unexpected gain. However the “property right” to the allocation of water transferred with the property so that the benefit of the subsidy was “capitalized” into the value of the land. Hence the next purchaser had to pay the market price for the land which included the valuation of the water rights. Once the subsidies have been “capitalized” the recipient of the subsidy may or may not have ever received any benefit of the subsidy (in the sense of artificially high return on assets or efforts) as some of the subsidy recipients could have gotten it as a windfall but others only got it by having to pay for it (and in an efficient land market the full net present value of the additional profitability/productivity of the plot of land due to the subsidy is already incorporated into the price). So the current direct recipient of the subsidy may not be a beneficiary of the subsidy.

Take this notion to, say, lower level employees of the government services who are paid substantially higher wages than workers with similar qualifications (or even workers doing exactly the same job (perhaps better)) in the private sector). Suppose the government wage is 25,000 Rs/month and the private wage is 5,000 Rs/month. Obviously there will be substantial excess demand for those jobs. Now imagine two allocation rules for those jobs. In one all applicants are placed into a lottery and those that win the lottery get the job. In this case winning the lottery is a huge windfall gain to the person who now holds the job. In another case some person or persons (illicitly) controls the allocation of the job and essentially auctions the jobs off to the highest bidders. In this case the rent of the excess wage is “capitalized” and the person holding the job and receiving the wage each month is not a huge beneficiary of the excess wage as the process of getting the job may have forced

them to pay an amount that made them nearly indifferent between the upfront payment plus access to the high monthly wage versus their alternative monthly wage.

This capitalization of course can be embedded at higher and higher levels. That is, a given Minister might have the authority to determine who gets the jobs within his ministry and there are anticipated to be Q jobs a year, of which it is anticipated will yield price P and he/she expects to be Minister for N years then he/she might have had to pay someone else up to $P*Q*N$ to be made Minister. In this case neither the person getting the job nor the person taking a payment to give the job are the “windfall” beneficiaries of any rents as they are extracted.

C) Empirics from Primary Schooling and Health

Pritchett and Aiyar (2014) produce empirical estimates of the gap between accounting cost and economic cost for primary education in India using data on public sector costs, private sector costs and learning outcomes. The basic finding is that in fiscal year 2011 (2011/12) the accounting cost of a year of government schooling was Rs 14,615 while the cost per student in private schools (using data on expenditures per child adjusted to FY2011 prices) was Rs 5,961. Even assuming learning were equal (which it wasn't) and assuming the actual private sector cost is “economic cost” (which assumes all schools are productively efficient, which they are not) this implies that the excess of accounting cost over economic cost is Rs 50,000 crore (roughly 10 billion dollars).

Using differentials in learning from rural areas between private and public schools (unadjusted for selection, so this overstates the pure causal learning differences) and an estimate of the relationship between cost and learning we estimate what it would cost for the public sector to reach, at public sector cost structures and efficiency, the private sector learning. We do this state by state (as there are large differences across states in both costs and learning gaps) and estimate that the total excess of accounting cost over economic cost for the government to reach existing private school learning levels would be Rs 232,000 crores (about 50 billion dollars). This is larger than actual expenditure because at current expenditures the learning is lower so much of the cost is the cost of reaching the higher learning levels.

This suggests that much of the government budget on basic education is not a “price of civilization” but a “tribute to Leviathan.” In this case the obvious form of tribute is that teachers in the regular civil service teaching positions are paid at rates enormously higher than their economic cost—something between 10 and 5 times higher. This is borne out both by comparisons between public and private but also between the wages paid to civil service teachers and to contract teachers in the public sector. And research suggests that there is nothing significant gained in terms of services delivered to taxpayers from these higher salaries as the evidence points out that contract teachers perform at least as well in Andhra Pradesh (Muralidaran and Sundararaman 2010). Atherton and Kingdon (2014) find that

contract teachers in Uttar Pradesh produce *twice as much* learning per year as similar individuals made civil service teachers.

This implies that between 40 percent (no adjustment for differences in learning quality) and 20 percent (adjustment for learning outcomes but no accounting for selection) of the budget in basic education is “price of civilization” and 60 to 80 percent of the budget is “tribute” in the form of rents paid through teacher salaries (which, again, may or may not benefit teachers depending on how “capitalized” the wage gains are, that is, how much of the rent the political system is able to extract from them).

There is nothing to suggest that basic education is in any way unique, we focused on this sector principally because it was easier to measure costs and at least some concrete outcomes but other service provision sectors from health to policing to administration of regulation of various types may be as rife with rents.

D) Getting “Benefit Incidence” Completely Wrong

One standard element of public finance economics is the calculation of the “benefit incidence” of various expenditures, more recently to see whether they are “pro-poor”. This calculation attempts to classify various types of public spending or subsidies based on the income (often proxied by consumption expenditures) of the person who benefits from that subsidy/expenditure. For instance, if the government subsidizes a fuel like gasoline then one can use data on gasoline expenditures by income level and calculate what part of the total subsidy to gasoline goes to which income groups— on this measure nearly all calculations find that since gasoline for motor vehicles has a high income elasticity (the share of expenditures rises as income rises) that subsidies to gasoline are *regressive* in that the benefits of the subsidy are more distributed towards the rich than is income/consumption itself.

This calculation of benefit incidence is also frequently extended to government provided services like health and education. In this case the standard calculation is to examine facility utilization by the income/consumption levels, for instance, what fraction of visits to PHCs, CHCs, District Hospitals are from individuals at various income levels, or similarly, what is the enrollment rate at various levels of schooling of children from households at various levels of income. From household data one can compute “utilization incidence.”

The next step is the problem. This is because *accounting cost* from the government budgets for providing these services is used to estimate “expenditure incidence.” That is, if the average cost per child in primary school is Rs. 10,000 per child then one can use utilization incidence data to attribute that to each child enrolled and then compute “expenditure incidence” as “accounting cost” incidence.

The obvious consequence of this calculation will be that since the enrollment in government primary schools in India amongst poorer households is now higher than for richer groups (because non-enrollment is low and increasingly the better off households enroll in private

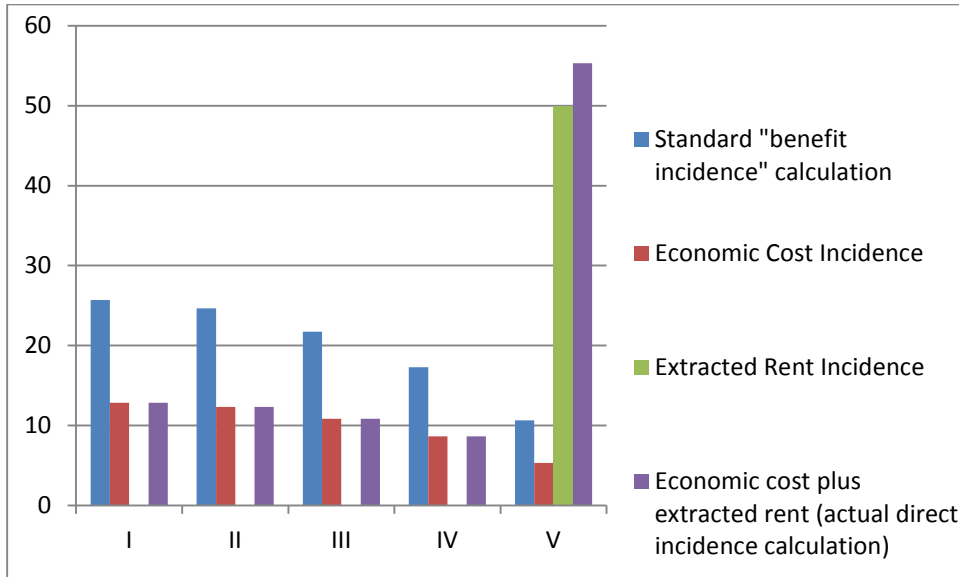
schools) the implication is that “spending on primary schooling is more progressive than a uniform transfer.”

One will come to roughly similar conclusions about “primary health care.” Generally total utilization rates of government provided health ambulatory (not hospital) care services are roughly constant across income quintiles. This is because although utilization rates of all providers of services rises with income the utilization of private services often rises more than proportionately. Consequently, utilization of public primary health care services either declines or is roughly constant. If one attributes the total accounting cost across levels of facilities then the “finding” will be that the “expenditure incidence” of health care spending is progressive.

However, one can conceptually cleanly (and, more crudely, empirically) distinguish between the *economic cost* incidence and the *extracted rent* incidence. That is, suppose that the *minimum cost* at which the actual quality of schooling produced for 10,000 Rs per child per year could be produced is 5,000 Rs per child per year. In this case the shape of the *economic cost* incidence looks as it did before—but only accounts for half of the total accounting cost spending. Suppose the *extracted rent* all goes to households in the top quintile (which is a reasonable assumption whether we assume the direct observed incidence (e.g. to teachers) or even more so for true incidence (e.g. where teachers may have had to pay for their positions)). Now the *accounting cost* incidence is the expenditure share weighted average of (a) the *economic cost* incidence based on attribution of economic cost to utilization and (b) the *extracted rent* incidence based on the difference between accounting cost and economic cost (or other methods to decompose, such as observed excess wages or cost comparisons with other providers). In this case spending on primary education is actually very *regressive*—going predominantly to the rich.

In this case doing either economic or political analysis of the “benefit incidence” of public spending on the premise that the budget head under which expenditure are allocated—e.g. “education” or “water” or “health” or “roads” is a useful description of what they actually produce can be completely misleading. The “extracted rent” component is not a price paid for a service but a tribute and who benefits from this tribute is not the users of education or health services.

Figure 2: Standard calculations of “benefit incidence” are completely misleading if extracted rents are a major component of accounting costs of services



Source: Author's calculations

II. Price or Tribute: Willingness to Pay

The second conceptual point to be made is to focus on citizen “willingness to pay” for the goods and services delivered to them by the government. Standard microeconomic theory uses the *expenditure function* which is the money income it could take a person to achieve well-being/utility level u at prices p (where p has a price for each of n goods). Suppose one of the goods is made available through public production (and to make things simple the consumer consumes only one unit (e.g. year of school)) at a reduced price and at quality Q (where quality is assessed entirely by the taxpayer, not any external metric). Then there is an equation that describes just how much tax any given citizen would be willing to pay (as an “all or nothing” deal assuming they cannot free ride and receive the public service without paying the tax), call it $wtp(Q)$, such that, in response to having access to the reduced price of public provision at quality Q plus the tax the citizen has exactly the same well-being as before.

$$e(p^{other\ goods}, p^{private}, u) - e(p^{other\ goods}, p^{public}(Q), u) = wtp(Q)$$

In the case of education this is easy to think about. Suppose the government provides access to a year of schooling for a parent's child tuition free (so $p^{public}(Q) = 0$). Then there is a price/tax that would make the citizen just indifferent between paying that tax and having access to free primary education at quality Q . If the tax is equal to the willingness to pay then the entirety of the tax is a "price" that the person would be, in principle, willing to pay. (Of course they might privately and in a pure self-interested way be even better off if they could avoid the tax and get the service by "free riding" on the taxes of others to cover costs but we assume that option away for now).

In this case we can conceptually think of payments to governments not as a "tax" but as a "compulsory purchase." The essence of many public economics market failure rationales of public sector is that citizens could be made collectively (and in an idealized world each individually in the Pareto sense) better off through a policy of compulsory purchase. For instance, if there is a positive externality to child education (so that if your child gets educated it benefits me as a fellow local or national citizen) then parents would under-invest in education if they equated their private costs and benefits. In this case a "compulsory purchase" of schooling (which could be accomplished in a variety of ways, including by providing schooling at a cheaper price that is economic cost) would lead to a better collective outcome (called "potential Pareto improving"). So the actual tax or compulsory purchase price devoted to a specific purpose can be decomposed into three elements: a private wtp , the tax to align collective and individual incentives of private and public marginal benefit, which is also a "price of civilization" as it increases the collective well-being, and the "tribute" which is excess cost that produces no value to taxpayer,

$$\begin{aligned} \text{Total Tax} = & wtp(Q) + \text{tribute excess cost} + \text{tribute low quality} \\ & + (\text{public } mb - \text{private } mb) \end{aligned}$$

As an empirical matter this depends on the quality of schooling. For any parent at different levels of income, taste for education, and preferences for specific characteristics of schools (e.g. medium of instruction) there is a "quality" of schooling at which they would prefer to enroll their child in a private school rather than even in tuition-free public schooling. At that level of quality the "willingness to pay" or "price of civilization" component of a tax falls to exactly zero. At that point, from the purely private consideration of the individual taxpayer (abstracting from externalities for now) all tax becomes tribute (as the public vs private marginal benefit typically only applies to the choice of quantity of use).

Note we are not confusing the conceptual "willingness to pay" defined in terms of household utility with an actual willingness to pay actual taxes in reality. That is, the conceptual WTP assumes the individual does not have the option of evading taxes and still benefit from government services. The realities of tax compliance and in some ways related to, but completely analytically distinct from this analysis of whether "tax plus services" makes the person better off or not.

There are two obvious points, illustrated graphically in Figure 3.

First, richer people are more likely to “opt out” of services earlier and use of public alternatives falls with income. At high levels of quality relative to income this is relatively few people and the median person and many of the “middle class” use public services. But with low quality public services then there are two kinds of “coping”—one is the coping of the better off into use of private alternatives and one is the coping of the less well-off into non-use or under-use.

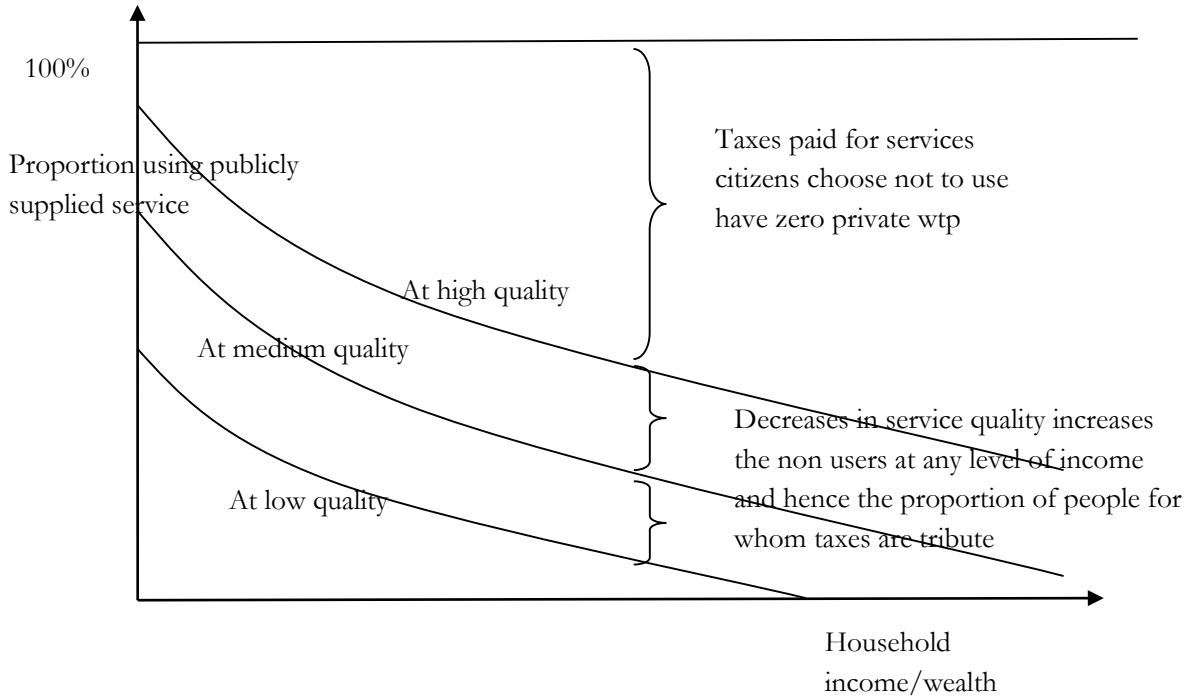
The phenomena of coping with the low quality of the public provided services is ubiquitous among urban middle class (say the range from the 50th to 95th percentile in consumption expenditures). Keep in mind in the 68th round of consumption expenditures the national threshold for the 95th percentile in urban areas was only Rs 6,015 per month or roughly Rs 25,000 for a household of four (and only about Rs 10,000 monthly for a household of four in rural areas) which is hardly what anyone could reasonably call “rich.”

But if one examines the range of publicly provided services they might use versus private coping one sees the widely expressed concern that the Indian urban “middle class” (either defined locally or globally) have withdrawn from the government services.

Enrollment rates in government schools are less than 50 percent in urban areas *on average*. This means that, to the extent there is a downward sloping relationship between enrollment and income the enrollment rate of the 80th percentile is likely well less than half. This has increasingly extended to rural areas as enrollment in private schools of children aged 7 to 16 in rural areas has reached 30.5 percent of all children (and hence 33 percent of the enrollment) (ASER 2014).

This extends to a range of other services. Utilization of lower level health care (e.g. PHC versus hospital) is low. Many citizens live and work in buildings that have generators to cope with unreliable publicly provided power. In urban areas many have to cope with a lack of 24/7 water via storage facilities and private bore-holes. Many neighborhoods and households engage private security services to supplement the police force in providing security. Only at the elite level (tertiary hospitals and top universities like IITs or IIMs) does the middle class reengage with publicly provided services.

Figure 3: As quality of publicly provided services (health, education, water, electricity, security, etc.) deteriorate people opt-out of utilization, which shifts taxes from price to tribute



Source: Authors

Second, as the quality of service falls (across the range of incomes, illustrated by a downward shift in Figure 3) then people opt out of the government service even at the same income level. This implies their willingness to pay tax as a price declines as a proportion of their total tax burden and hence the “tribute” portion rises.

For instance, in a recent study of policing in Rajasthan the authors found that in the baseline survey over 40 percent of law abiding citizens were afraid of the police (Banerjee et al 2012). While there is a powerful argument that there should be “compulsory” purchase of the enforcement of law and order and strong evidence that citizens have a willingness to pay for state provided order and physical security. But what is the “willingness to pay” for a police force that, by and large, people avoid to the extent possible?

There are two possibilities in services that are essentially publicly provided private goods in the economic sense. For instance, there are goods that are analytically “private” goods in the economic classification in that they are both rival and excludable (but perhaps with some externalities) but which are commonly provided in-kind by government providers such as electricity, urban water, education, ambulatory health care.

One is that the consumption is mutually exclusive and hence once a household decides to consume the private and not at all the public then willingness to pay is clearly zero. That is, the existence of the offer of free in-kind provision at quality Q by the state leads to no increase in household well-being. In this case the private *wtp* for the service rendered is zero.

Another possibility is that the citizens consume what is available of the publicly provided good but supplements this with private purchase and hence consumes some mix. This is true of infrastructure services like electricity or water, services like health care, and of quantity limited subsidies to commodities like food or kerosene in all of which people often use combinations of public and private providers, or security

A) Example of health care services

What is the “willingness to pay” of an Indian citizen for the availability of a PHC?

First, the facilities are often understaffed by medical personnel due to vacancies and absence. For instance looking at public sector ambulatory curative care (from sub-centres to PHCs) measures of absenteeism suggest that as much as 50 percent of the medical staff are not present on any given duty day (Chaudhury et al 2006, Banerjee, Deaton, Duflo 2004 for Rajasthan). Dhaliwal and Hanna (2013) suggest that attendance by doctors is only 25 percent in rural Karnataka.

Even when in attendance the medical staff do not provide quality service, even to the extent of their abilities. The Das and Hammer (2007) investigation of quality of actual practice found that medical care in PHCs did not reach the “do no harm” standard—hence their title “Money for Nothing.” This work was extended to assess quality of care in rural Madhya Pradesh which also found that the *worst* quality care was in the PHC clinics—even when patients were seen by MBBS doctors (Das et al 2012).

Hence the health seeking and health care consumption behavior of individuals are complex. They often do not use the lower level facilities at all, and certainly not to the extent envisioned by the budget provisioning or vision of providing services. Das et al 2012 find in rural Madhya Pradesh that only 3 percent of health care visits are to MBBS trained PHC doctors—in spite of the fact most PHCs were vastly underutilized. Dhaliwal and Hanna (2013) find that the main impact of attempting to drive up PHC staff attendance using biometrics in Karnataka was to alienate patients who then used the PHC less and hospitals more.

But many people do use the public hospitals, particularly for specific services like births and for high cost interventions. This is in part because the higher-level facilities (particularly teaching and referral tertiary hospitals) are of reasonable quality and partly because the costs of private facilities are simply too high.

This suggests that, as with education, a large part of the budget to lower level health care facilities has low or zero “willingness to pay” from even low income citizens. As Banerjee et

al 2004 documented, even among the poor in Rajasthan most health care visits went to the private sector, in spite of the fact that many of these visits went to “less than fully qualified” providers and traditional healers (*bhopas*). This is not because there is a low valuation of health—there is large spending on health by individuals. But the low quality of facilities (irrespective of the budget) leads to low WTP for publicly provided services which implies a substantial fraction of the cost of the facilities is either productive inefficiency or pure tribute.

III. Price or Tribute: Social Insurance and Income Redistribution

The simple point this section makes is that bundling redistribution into social insurance programs is effectively a tax on social insurance that raises the price of insurance (Gelbach and Pritchett 2002). Like everything else, when the price is higher people will demand less of it—and at some sufficiently high price, they will demand zero. The key consideration with “social insurance” programs is how much are they pure “insurance” with an actuarially fair compulsory purchase price and how much “redistribution” is bundled into the price of insurance. We note that the largest (and often most popular and politically untouchable) programs in OECD countries are social insurance programs with only modest degrees of redistribution so the effective price of insurance is low.

One other way in which government budgets are spent besides producing goods and services is in making transfers either in-kind (such as the Public Distribution System) or in cash (for instance the Mahatma Gandhi Rural Employment Guarantee Act) to individuals. Our key point on this is to take the lifetime and inter-temporal view of households and individuals and distinguish between two conceptually different intentions of programs.

One type of programs are *social insurance* programs. The description as *insurance* implies that the programs are intended to be redistributions between “good times” and “bad times” for the same person. That is, fire insurance redistributes resources from a person in the lots of good times in which his/her house doesn’t burn down but they pay a premium on the policy to those few times in which the house burns down and in that bad time the insurance pays off.

Private markets for insurance work badly (or not at all) owing to the well known “market failures” of *moral hazard* and *adverse selection*. *Adverse selection* is the problem that individuals may have private information about their risks and hence at any given price for insurance those who believe themselves riskiest are the most likely to buy. So if an insurer sells a policy price based on the assessment of the observed average actuarial risks in the population they will potentially lose money because at that price those who know themselves to be low risk won’t but it but the high risk will. Attempting to solve this by raising the price of insurance just increases the riskiness of those who actually buy insurance. *Moral hazard* is the problem that, once insured, individuals will be less likely to protect themselves against risks because the costs are lower—the proverbial problem that people with fire insurance will smoke in bed.

This inability or difficulty of private insurers to adequately address adverse selection and moral hazard creates the possibility for the state to create “compulsory purchase” of insurance that solves the pooling problems through a legal mandate. This can create a market for income or unemployment insurance such that each individual would *ex ante* (knowing only the distribution of risks but not their actual realization) prefer to pay the “tax” or fee for the insurance program with its collections (taxes) in good times payouts in bad times than either to not have insurance. Moreover, since the state can create pooling of risks by compulsory purchase the taxpayer can be better off than paying the market price for insurance which will have to reflect adverse selection.

Given that most people exhibit significant dislike of risk these social insurance programs can be enormously popular—even if they are not redistributive across individuals *ex ante*. That is, one can design mandatory contributory programs for insurance against health shocks, against old age, against unemployment (or loss of income such as crop insurance) such that tax payers have positive willingness to pay for these schemes. In fact, the bulk of the enormous historical rise in tax to GDP ratios in developed countries comes from higher and higher levels of a variety of “social insurance” schemes (Lindert 2004).

A second, fundamentally different, type of social protection schemes are “anti-poverty” type programs. These programs intend to transfer resources from the well-off to less well-off households by collecting taxes and giving payouts (in-kind or in-cash) to households/individuals that are below some threshold of income/assets or meet some eligibility criterion (which could, as in the case of NREGA be a condition to provide work). This is redistribution not across time for a given household from “good times” (e.g. employed) to “bad times” (unemployed) but is intended to be from households that are on average higher income to households that are, on average, lower income.

In practice, most social protection schemes of governments have elements of both. That is, “old age” contributory pensions often have a benefit scheme that provides benefits to individuals depending on their lifetime contributions (and hence people who pay into the system more because they have higher wages more get more) but also a minimum floor of benefits that everyone of old age receives.

Unemployment insurance schemes may be risk rated by occupation or sector so that individuals more likely to be unemployed pay more for their insurance but also may provide a ceiling on benefits so that high income individuals get less than actuarially fair insurance in order to provide higher benefits (as a proportion of wages lost) to lower wage workers.

Health insurance can provide implicit or explicit subsidies to cover low wage workers whose contributions as a percent of wages are too low to cover actuarially fair costs.

From a purely non-altruistic point of view one can decompose the tax paid (whether it is from a specific tax or contribution or not) for any social insurance scheme into the “willingness to pay” component which is the tax payment at which the citizen is better off

from the net contributions plus benefits than without the program which is “private price of civilization” even from the narrowest self-interested calculus and the pure tax that is “public price of civilization” that is the less than fair price of insurance due to the redistributive nature of the program from better off to worse off.

The key point is that “better targeting” of a social protection scheme in the sense of making the program more redistributive across households/individuals on average or more “pro-poor” is *an increase in the price of insurance*. Because this is an increase in the price of insurance there will naturally be less demand for this insurance.

Gelbach and Pritchett (2002) work out the simple political economy of this insight of greater permanent across household distribution as an increase in the price of redistribution and show that it is possible to maintain large social insurance programs at low levels of targeting. However, increases in targeting of “characteristics” rather than “conditions” leads to a fall in the size of the budget available for programs. In the extreme, a push of politically naïve technocrats to have “social protection” schemes reach the poor leads to the *worst possible* outcome for the poor as the budget falls to zero—so sharp targeting leads to everything of nothing going to the poor. One interesting element of this analysis is that it is *the rich* that are in favor of sharp targeting to the poor as this cuts the middle class support and hence leads to lower (even zero) taxes for social insurance programs. So in this model “sharp targeting” is the result of a coalition of rich and poor against the middle class.

So over time India will likely have greater and greater taxes flow into social protection schemes. However, this will depend on getting the balance right between the price that taxpayers are willing to pay to insure themselves against risks versus the political economy of transfers to the poor. This leads to a trade-off between “inclusion” of the poor into universal social insurance schemes but which also have (mostly) middle class beneficiaries versus “exclusive” programs for the poor.

Conclusion

In the current Indian context we are pro-tax but also anti-tribute.

There are many pressing needs of Indian citizens that government policy and effective provision of goods and services could address. These range from law and order to social protection to infrastructure to regulatory services (e.g. environmental regulation) to health and education. If done effectively these are an integral part of development in India. To maintain aggregate fiscal balance those will need to be paid for out of tax revenues of one kind or another. Paying these taxes would be a price of civilization well worth paying.

At the same time, much of the existing budget flows to what we call tribute. Some significant fraction of the budget (and it is impossible to say what fraction, but large) goes to excess costs induced by paying pure rents to government workers and to the production of goods and services of such low quality that citizens would rather pay their own money out of pocket than use what is offered “in kind” for free. On top of this are the flows to corruption

from excess costs of procurement in projects. On top of this are the direct tribute citizens have to pay as piecemeal bribes and facilitation fees even to acquire services to which they are legally entitled.

We argue the reason why taxes measured as collection of tax revenue as a share of economic output and measures of human and economic development are generally positively correlated is that the process of development is accompanied by a shift of total taxes from almost exclusively tribute (e.g. locally potentates extracting from their subjects) to almost exclusively price of civilization. This is a simultaneous transition of governance and in the role of the state.

This means that even though looking across countries with higher levels of economic, social and human development those with higher taxes have better outcomes this does not imply that increasing the tax take as a proportion of GDP without improving the efficacy with which taxes are used would improve citizen well-being in India if these greater collected revenues simply went to more tribute.

Before the consideration of the aggregate level of taxation (broadly construed to include all ways in which government create usable resources: taxes, fees, seigniorage, financial repression, etc.) and the efficient structure of taxation and its effective collection comes the question of what taxes are. Are they tribute collected by those with means to compel or prices paid for civilization? Of course in any given context the answer is “some of both.” In the case of India there needs to be a debate about how much of government expenditure is considered by the typical citizen as a legitimate and fair price for the civilization received (e.g. security provided, order created, laws enforced, infrastructure produced, services delivered) and how much is regarded as a pure tribute paid.

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