

The Quaid-i-Azam Lecture

**Governance, Institutional Reforms and
Modernisation of Public Sector**

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It is a matter of great honour for me to deliver the Quaid-i-Azam memorial lecture. He is an everlasting source of inspiration for me due to his two unmatched attributes, i.e. tolerance and determination. To me, this combination of qualities in Jinnah made him a symbol of glory and grandeur. Tolerance in particular can play an instrumental role in changing a society's outlook, and Jinnah set an example for us for being an emblem of tolerance. Tolerance with all its manifestations in different facets of life is direly needed in our society. For instance, religious, ethnic and racial tolerance can be considered as the first step towards forming a sound and rational society. In the same way, this gathering today has given me immense satisfaction, as different views from different schools of thought are assimilated and tolerated.

While knowing Jinnah, I owe him huge amount of reverence for another reason and that is his generous love for Allama Iqbal. While peeping into Iqbal's life, it is revealed that he is an incarnation of knowledge and wisdom. I am thoroughly impressed by one of Iqbal's quintessential quote, i.e. "the reason asks questions and love gives answers". This saying is relevant to an Italian Marxist and a political philosopher Antonio Gramsci who in his imprisonment wrote masterpieces, and they were mostly against the prevailing beliefs and norms. Keeping this phrase in mind, I sincerely wish that the Vision 2025 may be accepted with the passion of reason because this is inevitable; however, we should never lose the optimism of will as well. Now what economics has to offer about the Vision 2025? The state governs the decision process, institutional reforms and modernisation of the public sector. But at the same time, all of the

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human institutions are costly. Alternatively, economic transactions within the market cost a lot due to the costs associated with the prevailing institutional framework. This is equivalent to Friedman apt phrase which states that there is no concept of “free lunch”.

Institutional Economics conveys a message that all institutions are costly, and for this reason technological or other changes induce a process of institutional substitution or institutional innovation. Alternatively, institutional reforms involve a change in the set of costly institutions. Now if we look at the orthodox approach which implies differently. In other words, in the orthodoxy, we see that the public sector is some sort of remedy to some markets failures. However, this view is wrong for various reasons. For instance, when the market fails, it implies the failure of the prevailing set of institutional framework which itself is market mechanism. However, public sector may not be the necessary solution as public sector may even fails more than the market mechanism. Thus, an institutional failure has to be compared with other institutional failures.

Economics should not look for the goals of correcting some imperfections in otherwise imperfect institutions. It should rather study real life loops of behaviour as well. For instance, as Iqbal said that economics should study the ordinary business of human life that's simple—closer to what the subject matter should be. The other befitting example comes from the renowned British economist Mr Ronald Harry Coase. He adds one consistent theory and understands that consistency is very important. Why he had a consistent theory? In his writings, he wrote two important articles. One was about the theory of the firm and the other was about social cost and externality. In the first one he has claimed that, in the word of zero transaction cost, the firms would not exist. Firms exist only because the decentralised market mechanism is costly. In order to reduce the costs of decentralised exchanges that are need for production process, we need some organisational structure in the form of firm. In the second article, Coase state that, in the world of zero transaction cost, there would have been no externalities. Alternatively, costless market mechanism could solve market failures in terms of externalities. Both contributions implies same conclusion, i.e. in the absence of transaction cost, both the firms and state intervention are not justified. Thus, we have costly institutions and we have mixed solutions in reality. Mixed solution that is arising from different mix of institutions is due to the fact that some institutions are better in handling some transactions than some other institutions. Institutional change implies that the new institution would be a costly substitute. In other words, new institution should be productive enough in order to offset the additional costs associated with substitution. Neo-classical approach implies that economic development in a country can only be achieved by improving the mix of costly institutions.

Now, let us define how Coase's analysis explains some changes. Take the example of information technology which is a shining example in Coase's 1937 article. The introduction of information technology implies that it will give a change to the mix of institutions; but what we need to know that how it would change the mix between the market and firms? Let us explain the answer of how with the example of 1930s information technology, i.e. telephone lines which were some revolutionary change. As compared to the market mechanism, telephone lines were cheaper, implying that the introduction of telephone lines decreased the cost of economic transactions. Alternatively, the telephone lines change the mix of institutions in favour of the firms.

Thus, technological changes are continuously altering this institutional mix, and this is very interesting view; but there is something missing in this view, how we change this mix? The change in the mix implies that the selection between the market mechanism and firm for the execution of transactions mostly depends on the efficiency of each mode. If we presume that the mix is automatically changing and adjusting without problems; then the on-going debate on institutional reforms in Pakistan will be useless. In this view, markets would produce the right type of reforms and would adjust the mix according to the changing conditions. However, this is not the case in reality. There are meta-markets where we substitute the market transactions for firms. In fact, this is contradiction to the autonomy of markets in the selection of optimal mix. If some costless meta-institutions like market were able to capture the optimal institutional mix for each new technology, then all economists would have been in consensus on the same institutional development. However, there are no costless meta-institutions; and in each stage, institutional change is constrained by the costly institutions within which the change shall take place. The norms are set by the capabilities of an interest in changing some institution. In fact, the change is not made in some perfect vacuum; rather, it is made in some preceding institution. The constraints that are given by this particular institution are always conditioning, and narrowing the possibilities that we possess, and the thing that is narrowing the possibilities is capability of the agents to interpret the situation and try to change this situation. The nature of these constraints becomes clear once we introduce the concept of institutional complementarities.

When things are costly, it becomes worthwhile to try to substitute one for the other in such a way to achieve the best result. Only, in a world of costless institutions, institution substitution would not exist. Likewise, when things are costly, the necessity for complementarity arises. Just like the complementarity for physical goods, the complementarity for institutions is important. For instance, there is complementarity in the traditional system of state and the market mechanism. Namely, market system would work better if a judicial system works well, and if it does not work well, perhaps it is better to have a very large firm

where all the interactions take place inside the firm. However, even different interactions within the same firm are complementary, i.e. one function of the firm support the other functions within that firm. Thus, there are all sorts of complementarities, and they are important because they imply that it is difficult to change one institution without bringing supporting change in other institutions. This idea is really formalised by Masahiko Aoki—a Japanese economist who unfortunately died recently. He said that the costly institution cannot be substituted with costless institutional environment which becomes evident in case of institutional complementarity. Alternatively, institutional complementarity makes the substitution of institutions costly.

We should really ask how the existence of one institution may influence the cost of running the other institutions. How, for instance, the existence of judiciary influence the cost of running markets? Institutional substitution occurs in a certain moment of history and at a specific location. The possibilities of institutional substitution are led by various factors, including the existing institutions and their webs of complementarities. As Polanyi anticipated, social actors can make lasting changes on reality only by substituting the existing web of institutional complementarities. Another important point that is found in Polanyi and is underlined in Asad Zaman's paper is that the misconception of the existing complementarities is an important factor in shaping the institutional framework or in increasing the institutional substitutability. In other words, the lack of knowledge with regard to complementarities usually becomes the agent of change. Thus, the conceptions and misconceptions of social actors are important institutional change.

Now I will apply this entire methodological framework to what may be call—the knowledge economy. As the Minister has emphasised that the knowledge is becoming increasingly important for all countries. We are really dealing with a new sort of economy, and any successful change has to consider the nature of economic position that we have. Now what is the nature of the knowledge? Why knowledge? How it intensively makes such a big difference? First of all, knowledge is really the classic case in which we have the human activity producing and acquiring knowledge that is both means and ends. Human curiosity has always been there. Humans cannot stop being curios. At the same time, knowledge is an important factor in improving human conditions and producing better goods. Second, knowledge is a non-rival good. As Jefferson (President of the United States) said in a meaningful passage “knowledge is like a candle”. Light can be spread to new candles without decreasing its flames. Alternatively, all the individuals in a society can use the same knowledge without consuming it. We all can use the same chemical formula without consuming it. In contrast, we cannot use the same machine without overcrowding. So, knowledge as an input is non-rival which is very important. It follows that the regularisation

of knowledge is not granting a right to use knowledge as it is always available because of non-rivalry; rather, it is simply excluding others from its use. When I say that I own this piece of knowledge, I am not just saying that I have been allowed to use it. I could also use it before. It means others cannot use it now. By a patent, I am the only one who is allowed to do that type of use. So the ownership of a machine does not deprive others with the right of having identical machines. By contrast the ownership of the piece of knowledge deprives others of the right of having identical piece of knowledge. In fact private knowledge is a monopoly and treating it as an ordinary private property is really abnormal type of misconception. It has an enormous influence or impact in shaping modern world that we should not undervalue.

If we look at 1982, then the intangible things that you could not touch were only 38 percent of assets of the top 5 hundred firms in the world. In 1992 that was 62 percent and now they are 89 percent. Now the things like machines in comparison to trademarks or patents and all other things are becoming less important for the firms. It leads the firms to transform from one type of complementarities to another type of complementarities. In one case, the government and universities produce knowledge as a public good. Everyone can use it and then, we have got competitive markets. The numerous competitors combined with knowledge as a public good yield a lot of benefits, so these two things are really complementary. This complementarity is equivalent to that of the judiciary and the market mechanism. Again, one side belongs to public and the other side belongs to private parties. Now coming to the second complementarity in which one produces exclusive knowledge with some patent. In this type of exclusive knowledge, there is an exclusive intellectual monopoly, i.e. only the producer can use this type of knowledge. In other words, markets are closed to competitors; and when this is the case, then the production of knowledge can be worthwhile only for few organisations that have sufficient market power. In this way, we have transformed from one set of complementarities to another set of complementarities.

In recent years, the weight of second type of complementarity has become much more important than the first set of complementarity. In particular, intellectual property implies that there can be a lot of inequalities among firms. This is because an annex of the agreement TRIPS of WTO is supposed to sanction countries that break the Intellectual Property Rights (IPR). Now, intellectual property rights became global and stronger and it can cause different firms to diverge. Some firms will enjoy natural circle when intellectual property rights induce them to develop capabilities and capabilities lead them to acquire intellectual property rights. It implies that firms can develop skills and can enjoy the fruits of the developed skills as they are protected by some patents. In this way, no one can stop firms from investing in more skills. However, it is very

tough to enforce that annex of TRIPS. Firms can be trapped in a vicious circle where they are going to develop the skills and because of the lack of complementary intellectual property, they do not get the intellectual property rights due to the lack of skills needed for the intellectual property rights. In particular, this problem is acute, when some firms innovate and some other firms block them due to their intellectual property rights. In other words, an exclusive right to use some knowledge that is important for the innovations of others can block research. So, you can easily get some polarisation of firms, with these different types of characteristics and in fact there is a complementarity between the skills of some firms and their rich intellectual property, and the fact that some other skills are fairly low in other firms and they have got poor intellectual property. Some of them are in vicious circles and some are in herbaceous circles.

Now in certain way, this intellectual property can be seen as a form of protection. How? Suppose that you are a U.S. firm and you put pressure on your government either by having a very high tariff for foreign firms or by having a strong intellectual property rights. What will you prefer? Obviously intellectual property rights ... because even the highest tariffs cannot completely block inputs and cannot prevent other firms from producing for their own domestic markets. Thus, through property rights, firms get global protection for their skills.

In WTO, there has been a lot of propaganda for having free trades for certain commodities. However, there were really some tough statements about protections in all knowledge and private intellectual assets. So this is important, especially, to understand the current crisis. It is commonly accepted that the recent financial crisis was due to the saving glut. Yes, we agree that the crisis was due to the famine of good investment opportunities. However, the monopolisation of global economic opportunities has contributed to this famine of investment opportunities. In the crisis of the thirties, protectionism was considered as one of the worst consequences of financial crisis. However, unlike IPR, even the highest tariff can at most protect the national industry against foreign competitors. In the recent downturn, protectionism is in its new form of global IPR.

IPR may be a cause of the financial crisis. How? Observe that IPR adds up to efforts due to incentives. If you know that you can acquire intellectual property rights you are going to invest more because you want to acquire particular intellectual property. However, there is also an associated blocking effort by IPR. This is because awarding IPR to someone implies blocking others from investment in this type of knowledge. There is the incentive effort and there is the blocking effort. However, what is interesting is that the incentive effort is immediate. If you are enforcing IPR, everyone is going for the good rush. Onwards, you colonise the version of territories and you may find that many scenes are blocked so that the blocking efforts come later. Actually, these things

are occurring very rapidly in recent years as there is huge rise in investment in research after the introduction of TRIPS.

All of these complementarities imply that we face a serious knowledge economy paradox. The non-rival nature knowledge could raise favour for more and even self-managed firms but it is used to create artificial economies of size which make cheap production at precision and defiance of private knowledge possible only for big businesses. We say knowledge privatisation that needs to provide incentive to investors to see human capital could be argument as compared to more firms having cheap non-rival public knowledge. If there were no patents and knowledge was available to everyone for free; then, the small firms could all use this public knowledge. Alternatively, you would give the powerful incentives by making them small and making them effective profit seekers. By now, because of the mobilisation of intellectual capital the knowledge economy can become the most unfriendly environment for small firms. Only large firms can exploit economies of scale and scope that are due to the ownership of knowledge. In particular, when knowledge is privatised, it is really favouring the size; and it is a source of favour in economy of scope. In other words, one piece of knowledge is useful only when it is used in some other pieces of knowledge, and there are both strong economies of scale and scope that arise when you privatised knowledge.

A great increase in inequality is stemming from the fact that if you make a lot of knowledge from the public to the private sphere. Granting monopoly to knowledge is associated with the widespread vicious circles where so many firms may drop because of dissuasion that do not have intellectual property and they do not develop those skills and vice versa. We should try to understand the cause that knowledge is a global public good, everyone can use in this world. But at the same time, we have got that different nations free ride on others. This is because the countries which are producing knowledge are paying for it; however, making it free for other countries imply that they will free ride on the producers of knowledge.

So, there is a dilemma. One the one hand, you have to control the inequities associated with the privatisation of knowledge, and, on the other hand, you have to control the free riding associated with making knowledge as a global public good. In order to solve this dilemma, we need a global institution which takes this into account. It is better to use pre-existing institutions which change their nature, keeping in view this dilemma. Take the case of WTO in this scenario. Well, you could say that with a little change of language which consider that free riding on the production of public knowledge of either nation should be seen as a damaging form of unfair competition where rider reaps the benefits of rather costly investments. The WTO should be reformed in such a way that this unfair competition is tamed. If you want to participate in

international trade, you should not free ride on the knowledge produced by others and everyone should supply this public knowledge proportionally to its place and wealth in the international community. In particular, it should be decided that the participation in international trade requires a fraction of GNP (increasing more than proportionally with national wealth of each member state) to be invested in open science and to be made available to all countries as a global common good. In this way, we will derive a super multiplier and multiplier could increase when government expenditure helps to transfer knowledge from the private to the public sphere. This is why knowledge is a super multiplier. Each time that you are move something, that is knowledge, from the private to the public sector, you are basically creating two effects. First, if you compensate the former monopolists, it gets more money and more competition, so he invests more in research. Second, others have got more investment opportunities, so you get some form of super multiplier.

Knowledge privatisation is of course linked very much with global inequality. Privatisation of knowledge is being particularly damaging for the large majority of the firms located in the low income countries. In the past, these countries were supposed to share the fruits of technological progress. The monopolisation of innovative technological paths involves an opposite mechanism. Rich countries at the frontier of knowledge introduce high protectionism for their products, while advocating free trade for the commodities produced by poor countries. Excessive knowledge privatisation tends to increase inequality among and within countries. Now this is the dark feature. It is a dark picture because finding the agreement among the foreign countries is not easy in the present situation. We should try to understand which one is the knowledge policy that you follow given this international situation and of course countries like Pakistan and Italy individually cannot put pressure to have these changes at international level, there is something that they can do. Pakistan (similarly to Italy) has a majority of small family controlled firms and this is not something, at least from our experience, that you can easily change in the short period. These firms cannot easily reap the economies of scale and scope entailed by the investments in intellectual capital. One should try to have small firms co-operating with a modernised public sector that is able to exploit its many complementarities with small business.

At the end, I would recommend to encourage the joint discussions among firms' associations and universities. These joint discussions should work on the future of technological trajectories and their monopolisation by particular firms. Also, at times, provision of funds to joint projects of universities and firms is also required for a prosperous future. Now, of course, this sort of analysis means that we are an economy which is based on more family controlled firms. You know that the occasional analysis by itself is not very useful. You should consider it as

a starting point. In the medium period, you cannot usually change and build policies that are complementary to the situation; otherwise, you are not going to succeed. At this time public sector may be a substitute for big corporations and it is complementary to small family controlled firms in economy. The corporations should all be absent and majority will be exploiting the others and may be more costly than the state interventions. However, it is not a perfect solution because the public sector itself is a costly substitute for other institutions as there is corruption and other terrible things that are associated with the public sector. Of course in America you would definitely do something different, here you know we are not in US or we are here or we say that in Italy and US is a long story in this respect. Moreover, this type of state interventions takes for granted the highly imperfect international arrangements of intellectual property. It is complementary to the international settings that are beneficial to be changed, but a single country has not the power to change given when a state tries to modernise its public sector. However, it is my hope that Pakistan along with other countries eventually succeed to reform the international public sector, because knowledge is a global public good and hence it requires global solution.

REFERENCES

- Coase, R. H. (1937) The Nature of the Firm. *Economica* 4:16, 386–405.
- Coase, R. H. (1960) The Problem of Social Cost. *Journal of Law and Economics* 3, 1–44.
- Ostrom, E. (1990) *Governing the Commons: The Evolution of Institutions for Collective Action*. New York: Cambridge University Press.
- Pagano, U. (2011) Interlocking Complementarities and Institutional Change. *Journal of Institutional Economics* 7:3, 373–392.
- Pagano, U. (2012) No Institution is a Free Lunch: A Reconstruction of Ronald Coase. *International Review of Economics* 59:2, 189–200.