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Institutional trap

One of the main obstacles for successful economic development is the formation of institutional traps, inefficient yet stable norms of behaviour. Domination of barter exchange, arrears, corruption and black market activities are examples of institutional traps that have hampered reforms in transition economies.

Institutional traps are supported by mechanisms of coordination, learning, linkage and cultural inertia. The acceleration of economic growth, systemic crisis, the evolution of some cultural characteristics and the development of civil society may result in breaking out of institutional traps. Examples from the history of the United States and Russia are considered.

Institutional trap is a stable but yet inefficient equilibrium in a system where agents choose a norm of behaviour (an institution) among several options. It is usually implied that multiplicity of equilibria prevails in the system, and that an institutional trap is Pareto dominated.

The concept of institutional trap is closely related to the notion of lock-in used by Arthur (1988) and North (1990); these authors showed that inefficient technical or institutional development can be self-supporting. In fact institutional traps have been studied in many papers (see for example Ickes and Ryterman, 1992; Tirole, 1996;

Bicchieri and Rovelli, 1995; Jonson, Kaufman and Shleifer, 1997; Uribe, 1997). In Polterovich (2000; 2004) a general scheme for the formation of an institutional trap was described. The theory developed was successful in explaining a number of important features of wide-scale institutional transformation in Russia and other post-communist countries where the evolution of institutional traps was clearly observable. In particular, it was shown that such different phenomena as barter, mutual arrears, tax evasion, and corruption were intensified and supported during the reforms due to similar mechanisms. Also studied were possible strategies for a country to get out of an institutional trap.

Norm-fixing mechanisms and institutional trap formation

A norm is a rule that large groups of people can or must obey. In any area of life and at each moment in time, a multitude of alternative norms is available, and every agent has to make his or her choice. For example, an official may choose either corruption or honest service.

Each agent who interacts with partners within the framework of a certain behavioural norm has to bear the corresponding transaction costs. For example, the possibility of being caught while taking a bribe would cause a transaction cost component for an official who has chosen corruption as the norm.

The costs of transition from one norm to another are called transformation costs. These may be incurred by an individual, a firm or the state. If a firm decides to switch from black market to legal operations, it has to search for new partners. Search expenditure is a part of the transformation cost.

For a behavioural norm to be stable, individuals should feel that it is unprofitable or disadvantageous for them to deviate from it. This means that the present value of the difference between the transaction cost of a prevailing norm and any alternative norms has to be less than the related transformation cost. The main type of stabilizing mechanism is based on the coordination effect, according to which the more consistently a norm is observed in a society the greater are the costs incurred by each individual deviating from it. For example, the coordination effect takes place if a personal probability to be punished for a rule-breaking activity decreases with the number of people involved in the activity. In this respect, institutional traps belong to a broader class of coordination failures (Howitt, 2003; see also Matsuyama, 2005, where the related concept of POVERTY TRAPS is discussed).

With time, the transaction costs of a norm's observance decreases due to learning effect since the agents learn to operate more efficiently. If the payment of taxes is considered a norm within a society, the taxpaying technology improves. If, on the contrary, tax evasion is a norm, the relevant techniques develop. A decrease of the transaction costs fixes the norm.

Another mechanism, referred to as the linkage effect, is also important. With time, an established norm finds itself linked with a multitude of other rules, and becomes part of a system of other norms. Therefore, non-observance of this norm triggers a chain of other transformations and, consequently, leads to high transformation costs. By increasing transformation costs, the linkage effect, too, contributes to a norm's fixation.

There is yet another norm-fixing mechanism, cultural inertia, which denotes agents' reluctance to review those behavioural stereotypes that have already proven

viable. Inertia effects may be supported by a formal or informal system of punishments and awards for past behaviour. For example, a person with a good reputation tries to maintain that reputation by following respectable norms of conduct.

As with any other norm, an institutional trap's stability means that a system absorbing a small external impact will remain in the institutional trap, having perhaps slightly changed its parameters, and will return to the former equilibrium state once the source of destabilizing pressure is removed. An individual or a small group of people loses if it deviates from an institutional trap. However, the simultaneous adoption by all agents of an alternative norm may be Pareto improving. Thus the lack of coordination is the main cause of the institutional trap stability.

The emergence of institutional traps is an important source of risk associated with any reform process. The universal norm-fixing mechanisms described above, the coordination, learning and linkage effects, as well as cultural inertia, are responsible for institutional trap formation.

Consider a system with multiplicity of equilibria, and let an efficient norm prevail. Under a strong perturbation, the equilibrium may lose its stability or disappear so that the system moves to an alternative stable equilibrium, a potential institutional trap. After the disturbing factor is removed the system remains in the new equilibrium, which is now inefficient. This is the so-called hysteresis effect, which is a form of a system's dependence on its former path of development (path dependence).

A number of unexpected phenomena observed during the wide-scale reforms of the 1990s, including the rise and persistence of arrears, corruption, black market activity,

and barter exchange, may be considered as institutional traps. Using the Russian experience, one can describe barter and corruption traps formation in greater detail.

Example 1: barter

In modern economies, barter is associated with higher transaction costs than monetary transactions. When the inflation rate increases, paper money loses its value. Economic agents try to diminish their losses and seek to accelerate the rates of money circulation, which means an increase of their transaction costs. The transaction costs of monetary exchanges may grow very rapidly, if the finance system fails to cope with the rocketing number of transactions.

In economies with advanced banking systems the share of barter is rather modest, even when inflation is high. But after price liberalization in 1992, Russia proved to be ripe for barter. With the banking system still unformed, money transfers within Moscow could take up to two weeks, and beyond the capital, over a month. It sometimes made more sense to carry bags of cash from city to city by plane than to transfer money from one bank account to another. Many firms soon found that barter transaction costs were lower than those for monetary exchange. Moreover, the transformation costs of a shift to barter looked acceptable, given the pre-reform direct links between supplier and consumer that had been typical in the centrally planned economy. The search for prospective partners and the process of trade negotiations were facilitated by the spread of sophisticated means of communication. The larger the number of firms choosing barter, the lower the barter transaction costs for a fixed barter volume since it was easier to find partners and put together barter chains (a coordination effect). In those conditions, as the share of barter exchanges increased, even more companies became involved.

Thus the environment conducive to barter had been created by changes in fundamental parameters, such as the rate of inflation and the risk of arrears, which radically increased the ratio of monetary exchange transaction costs to barter exchange transaction costs. The coordination effect triggered a rapid formation of a barter economy. Later, the transaction costs of barter exchanges continued to decrease due to the learning effect: companies learned to design elaborate chains of barter exchanges. The newly established norm gave birth to a new institute of barter exchange intermediaries and proved to be an efficient instrument of tax evasion (linkage effect).

By 1997, inflation in Russia had decreased dramatically, and monetary exchange technology had notably improved. Barter practices, however, were not dropped altogether. Barter-driven behaviour was supported by the coordination effect; it has been fixed through learning, linkage and cultural inertia. Any agent deciding to break out of the barter system would be exposed to inevitable transformation costs. He or she would be forced to sever long-established connections, to look for new partners, and to be ready to come face to face with the tax-collecting authorities. The barter intermediaries, who would lose their main sources of income if barter practices were eliminated, formed a potential group of pressure for perpetuation of the relevant norm. This is the hysteresis effect mentioned above.

Example 2: corruption

Every potential bribe-taker makes decisions comparing his or her gains from bribes and from honest behaviour. In Russia, income inequality jumped sharply during transition because of uneven transitional rent expropriation. The state was not able to properly adjust the salaries of bureaucrats, so the salaries were insignificant in comparison to bribes from

the newly rich. This caused an increase in corruption activity. Inefficient government policy, inadequate legislation, unclear norms for new market behaviour and weak mechanisms of government control contributed to a rise in corruption.

The larger the scale of corruption, the smaller were the chances for a bribe-taker to be caught. Corruption technologies were developed with time, corruption hierarchies arose, and corruption activities were closely linked with other shadow economy mechanisms. Corruption turned out to be habitual for both the bureaucrats and the population. The coordination, learning, and linkage mechanisms as well as cultural inertia made the corruption system even more stable.

One can find institutional traps in the history of many developed countries. The United States of 19th century presents a good illustration of the corruption trap (Knott and Miller, 1987, pp. 15–31). The time between 1815 and 1840 was a period of intensive transformations of political institutions in the United States. Property ownership requirements were abandoned to allow the lower classes to vote. These democratic reforms had unanticipated consequences, however. The political party machine became an effective instrument for some party bosses to get rich. Such men allocated public service positions (including those of postmaster, customs official, and policemen) among their supporters without taking into account competence or skills. Office workers were forced to pay a proportion of their wage to the political party through whom they had obtained their jobs. The police were a political tool rather than a law enforcement agency. Businessmen paid bribes for franchises. Low-level policemen took payments for ‘permitting’ local vice operations, and the money was distributed among the police

hierarchy and the political bosses. Many people understood that the situation had to be changed, but nobody wanted to make a move. This was a corruption trap.

Once it has fallen into an institutional trap, the system chooses a non-efficient path of development, and, with time, returning to efficient development may be very difficult even if possible.

Escaping from an institutional trap

However, there are reasons to believe that some institutional traps are stable in the medium run only and that an economy can gradually develop mechanisms conducive to its escaping from institutional traps. The theory outlined above gives us a framework for the systematic consideration and classification of different mechanisms that may facilitate this transformation.

One has to reach at least one of the following goals: (a) to increase the transaction costs of the prevalent inefficient norm; (b) to decrease the transaction costs of an alternative efficient norm; (c) to bring down the transformation costs of the transition to an efficient norm. The coordination, linkage, or/and inertia mechanisms have to be influenced for these purposes.

Below we consider microeconomic measures and macroeconomic policies that may be taken by a government, as well as spontaneous tendencies that are helpful for an economy to escape institutional traps.

Microeconomic measures and macroeconomic policies

The simplest way of increasing the transaction costs of an inefficient norm is the introduction of a high penalty for deviating behaviour, for example, a strong punishment for corruption or a special tax on barter exchange. However, high penalties are very costly. There are at least three sources of penalty costs. First, enforcement of stronger penalties requires larger resources to be spent. Large fees may result in strong resistance on the part of the penalized persons. Second, a penalty directed to decrease the intensity of an inefficient norm may increase the intensity of its even more inefficient substitutes. Fee increasing may shift the system to another institutional trap instead of shifting it to an efficient equilibrium. For example, strong punishment for arrears could create additional incentives for firms to escape into the underground economy. Third, one should take into account the possibility of wrong decisions. The stronger the punishment of an innocent person the larger the social losses.

The development of reputation mechanisms is another way of increasing the transaction costs of corruption, arrears, or tax evasion (Tirole, 1996). These mechanisms also decrease transaction costs of efficient norms, creating incentives to observe them. At the start of the Russian transition, old reputation mechanisms were totally destroyed. New mechanisms arose gradually, due to strengthening of the state and formation of new business networks.

Amnesty is an instrument of weakening inertia effects in the cases of tax evasion, arrears and corruption. Many governments use this measure. The outcome is mixed, however. To be successful the amnesty has to be an unexpected event, conducted at an

appropriate moment when fundamental causes for a trap are exhausted, and it has to be complemented by other measures weakening linkage and coordination effects. The rotation of officials may be an effective measure for destroying unproductive coordination (see a theory of rotation in Ickes and Samuelson, 1987).

Macroeconomic policy also influences the evolution of institutional traps. In choosing tax, social, or industrial policies, one has to take into account that they can create incentives or disincentives for participation in black market operations or corruption.

Spontaneous exit

There are some spontaneous tendencies which, being unintended, may nevertheless facilitate exit from institutional traps.

A number of institutional traps (corruption and tax evasion traps, for example) are connected with rent-seeking behaviour. Each economic agent may invest his or her money and time into production or into rent-seeking activity. The choice depends on the relative efficiency of these two options. If rent-seeking dominates, then many agents choose this option, and an institutional trap may arise.

At a time of major institutional transformation, some economic agents are able to derive additional income – transitional rent – exclusively from their fortunate positions. Price liberalization gives the advantage to suppliers of goods in high demand. Foreign trade liberalization allows importers and exporters to profit from differences between domestic and world prices. The emergence of new stock exchanges and securities markets creates ample arbitrage opportunities for financial intermediaries.

If the state does not take special measures to extract transitional rent, rent-seeking becomes much more profitable than production. An increasing number of economic agents find themselves to be involved in rent-seeking activity, and increasing volumes of resources are diverted from productive activities. The rate of production growth falls, and this makes production even less attractive for investors. Coordination, learning, linkage, and inertia mechanisms start to work and form institutional traps.

If, however, the rate of economic growth substantially increases due to improvements of technology or term of trade, then some agents may decide to increase their investment into production. This supports growth and creates new incentives for the next cohort of agents to switch their efforts from rent-seeking to production. As a result, an institutional trap may disappear. Growth diminishes the transaction costs of ‘good behaviour’ and facilitates improvement of institutions. This conclusion was corroborated by econometric calculations (Chong and Calderon, 2000) as well as theoretical research (Balatsky, 2002).

Evolution of civic culture

One way out of an institutional trap is disadvantageous for each isolated economic agent but advantageous for society as a whole. The root of the problem is lack of coordination. The ability of agents to coordinate their efforts depends on the prevailing civic culture and the development of civil society.

Most studies of economic growth consider civic culture as a fixed and non-changing factor. However, some important parameters of civic culture may change drastically during a period of 10–20 years; therefore long-term considerations have to

take them into account. For example, the proportion of people who revealed political interest in Germany was 27 per cent in 1952 and 50 per cent in 1977; the proportion of affirmative answers on the question ‘Can most people be trusted?’ increased from 9 per cent in 1948 to 39 per cent in 1976 (Conradt, 1989). Political interest and social trust are important preconditions for social activity and the strengthening of civil society. Note that the proportion of respondents who belonged to a voluntary organization grew in Germany from 44 per cent in 1959 to 50 per cent in 1967, and 59 per cent in 1975.

Lack of trust has direct economic consequence: it increases transaction costs and decreases investment (Zak and Knack, 2001). If social activity is intensified and the degree of social trust increases, coordination becomes less costly; and there are more chances to escape from institutional traps.

The history of the US corruption trap, mentioned above, demonstrates the importance of the development of civil society (Knott and Miller, 1987, pp. 33–53). By the turn of the 19th century, a powerful progressive movement had emerged. The movement combined the efforts of several groups of citizens including middle-class taxpayers, small businessmen, farmers, and professionals of various sorts. Their main goal was an administrative reform that would separate politics from administration. They required administration according to rules, the selection of civil officers according to merit and qualification, the standardization and simplification of procedures, the centralization of administrative authority under a single executive in accordance with the principles of hierarchy. Progressives created a number of organizations such as the New York Municipal Research Bureau, New York Citizen’s Union, and the Milwaukee Free Press, and occupied leading positions in both Republican and Democratic Parties. The US

Republican President Theodore Roosevelt and Democratic President Woodrow Wilson conducted reforms in accordance with progressive ideas and constructed a new system of governance based on independent commissions. The elimination of the corruption trap was a result of these reforms.

Systemic crises

Sometimes systemic crises can be helpful in helping an economy escape from an institutional trap. (The idea that a systemic crisis may be advantageous has been put forward and studied in a number of papers: see Drazen and Grilli, 1993.)

A crisis drastically changes system parameters and even destroys supporting mechanisms so that an economy may find itself outside the attraction area of the inefficient norm. The evolution of the barter trap in Russia serves as a remarkable illustration of this statement.

The barter trap was broken in 1998 due to systemic financial crisis. In consequence of the ruble devaluation the dollar has strengthened against the ruble by about two times in real term. Imports dropped drastically; in 1999 to 56 per cent of the 1997 level. Exports decreased because of the rise in oil prices. Real wage rates also dropped. However, the overall demand for domestic goods increased, labour costs diminished and the economy started to grow. The crisis totally destroyed the government bond market, which diverted money flows from production purposes. Enterprises started to earn money and used it for investments. Their real balances increased. All these changes contributed into a strong decrease in monetary exchange transaction costs. The share of barter in industrial sales fell dramatically. In 2002 it was about ten per cent. The

barter trap disappeared including the complicated system of barter intermediaries. The crisis achieved what the government had not been able to do.

Conclusion

Institutional traps are serious obstacles to economic development. Many countries have found themselves in institutional traps. Some were able to escape, others have been searching for an exit for a long time.

The main cause of institutional traps is lack of coordination. The market is a powerful coordination mechanism; however, if the market fails, the government may try to prevent an institutional trap or facilitate getting out of it by developing reputation mechanisms, implementing an amnesty, improving administration and choosing appropriate macroeconomic policies. In many cases, however, neither market nor government measures are effective in the short run. Civil society institutions have to be developed to reach the necessary coordination. This is a point that may be helpful in integrating cultural and civil society studies into the theory of economic development.

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See also: ARREARS; BARTER; PATH DEPENDENCE; POVERTY TRAPS; STATE CAPTURE AND CORRUPTION IN TRANSITION ECONOMIES

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