Public Works Policy

A government's public works policy derives from the fact that certain economic goods and services are deemed by economists to be "public goods". Public goods are those goods which provide economic benefit to society for which the market does not provide enough of. These are goods which are difficult to price under the law of supply and demand. The most common example of a public good is national defense.

A country needs national defense, yet it is indeterminate when defense is needed nor how much people are willing to pay it, therefore it is deemed a service which is best provided by government. Public works, which are usually large infrastructure projects, are also viewed by some economists to be public goods. The best example of a public works project in the United States is the interstate highway system. The congressional act authorizing the federal, as opposed to local, funding of roads is known as the National Interstate and Defense Highways Act of 1956. The highway system was deemed necessary for national defense, to facilitate troop and armament movements throughout the country during the Cold War. In addition to the national defense rationale for the highway system the highway system also provides commercial benefits to the private market because the producers and suppliers of private goods are able to reduce transportation costs by using the publically-provided highway system. In economics this is known as a positive "spillover effect" from the provision of a public good.

Public works and the public good

Absent the profit motive of a market which determines the supply and demand of a good or service, governments need to plan for, to budget for, the provision of public goods. The method by which a government plans for its activities is called the making of policy. How a government makes policy depends on the form of government within the political body the government represents and how public revenue and spending decisions are made within that public body. In a democratic system policy is made by government proposing revenue schemes (usually taxes) and spending plans, and these plans, called budgets, are approved by the elected representatives of the citizens within the political body (be it a local community or a larger political entity such as a nation). In political entities in which collective action decisions are made by non-democratic means, such as in dictatorships, policy is made by those in power unilaterally. A public works policy is how a political body plans for the provision of public works. For example, public works planning is mostly decentralized and conducted by cities and states in the United States whereas in Japan the national government plays a larger role and views public works as a part of a national industrial policy.

Another economic rationale for collective action, be it government or voluntary self-organization, is that some economic goods are deemed to be "natural monopolies". A natural monopoly is something which requires large up-front investment and for which it does not make economic sense to build more than one in a given location. Some economists believe that the concept of natural monopoly provides the economic rationale for government to make policy for public works. Public works projects usually entail large costs and long periods of time to build. The most commonly known public works projects, in addition to roads, are canals, water and sewer systems, shipping ports, water dams, airports, bridges and mass transportation systems. In addition to the large upfront costs of public works projects, infrastructure can also be expensive to maintain and must be maintained over long periods of time. It is for this reason that public works policy is also part of a political entity's fiscal policy; fiscal policy is how a political entity plans its revenues and expenditures, including those for public works.

Economists, planners, public administrators, and politicians do not agree on an exact definition of public works. Many economists believe that if a natural monopoly can provide a revenue stream then it is best for profit-making entities to provide the good or service because this will create incentives for efficiency in provision. In addition some economists propose that governments may have an incentive to over-provide public goods because this enlarges government power and budgets and helps to garner political favor through targeted spending. However other economists believe that it is best for government to control public works to ensure quality control and to ensure that the public interest is fully captured in how public works are managed. Public works policy in reality is a combination of economic reasoning and the political process, and usually combines both private and public provision of public works.

Public works and regulation economics

Because of the natural monopoly and the public goods nature inherent in public works (the positive spillover effect) many economists agree that there is a role for government in ensuring that the public good is provided at a level which ensures the greatest societal benefit. The economics behind the analysis and policy implementation for natural monopolies is called "regulation economics". The purpose of regulation economics is to ensure that providers of public goods and natural monopolies charge a fair and reasonable price for the good or service and that the government regulatory framework provides the right incentives to allow this to happen. Regulation economics seeks to find the best policy for implementing natural monopolies.

The main argument for private provision of public goods is that this creates less of a strain on the public finances of a political body. For example many states in the United States have privatized parts of their road systems, usually those that link together many population centers and are used by a great number of people. This ensures that only those using the roads are actually paying for the roads, generates revenues and reduces congestion. The private provision of public works is usually implemented through concessions, where private companies bid for the right to operate and maintain the public roads and highways for a period of time in return for sharing a percentage of the profits or for an upfront fee. Because of the large sums of monies involved in many of these roads, privatization of roads is a highly politicized issue.

Public works and economic development

Some economists recommend the private provision of public goods in nations and other political entities with low levels of economic development because these entities do not have a large enough tax base to publically-finance the building and maintenance of public works, yet public works with positive spillovers are necessary for economic growth. For example a political body may give the right to a private operator to build and operate a public work (for example a shipping port, roads system or a dam which generates hydroelectric power) which will encourage and facilitate economic activity. Ownership of the public work may be transferred to the private operator or ownership may remain with the political entity. The success or failure of the private provision of public goods depends on the strength of the political institutions and the way the bid process and private-public contractual agreement is structured. The idea is to provide the greatest benefit to the public at the least cost (or the greatest profit). Public works policy in this sense is part of a larger economic development policy for a given political area.

Other economists believe that anything which generates revenue and can exclude “free-riding” (the use of the result of a collective action without paying for it) is not a public good nor a public work and should not be provided by government. Examples of these types of public goods which are natural monopolies are public utilities such as gas and electricity. The provision of electricity for homes and businesses and gas for heating, cooking and manufacturing requires extensive outlays of capital and requires that gas lines and electrical cables be built throughout a given area. The building and repair and maintenance of this infrastructure can be very disruptive to the day-to-day lives of citizens so it is important in how these natural monopolies are regulated and managed by public officials. In general public works such as water and sewage systems are publically- owned and operated, due to public health concerns, however there are exceptions. Regulatory economics attempts to answer the trade-off between efficiency and competition versus ensuring adequate provision of services with the least disruption of public life.

Some public works in history

In *A Concise Economic History of the World*, Rondo Cameron and Larry Neal make the argument that a public works policy is one of the reasons for the duration and relative prosperity of the Roman Empire compared to other civilizations of the time. The Romans built extensive water systems throughout the Mediterranean basin and this helped to allow for the territorial expansion of the Empire as well as for its economic development and population growth.

Cameron and Neal also believe that the decentralized, city and county-based, canal systems built in England during the preindustrial era is one of the reasons that England became the first country to industrialize. The institutions and policies developed during the process of building the canals and linking them together throughout the various decentralized political bodies into a nation-wide network enabled then a smooth transition for the building of first roads for horse-based transportation and later the railroads, which were a key determinant for all countries which experienced industrialization.

England's decentralized public works policy for transportation can be juxtaposed with those nations who industrialized after England and shows how the attempts at more centrally-planned railroad-based industrialization contributed to the boom and bust known as the Panic of 1873. Following the Civil War in the United States the railroads were the second largest employer after agriculture. The U.S. government put into place a policy of encouraging westward expansion and this included the giving of land-grants to railroads. There was already one transcontinental railroad by the time of the Civil War, yet by the time the panic was over there were five railroads running from Chicago to San Francisco. At the same time the French and Russian governments were using Government Sponsored Enterprises (usually a mix between private and public capital whose activities are guaranteed by the government) to rapidly industrialize, especially in railway construction. Many economic historians agree that the economic boom of the 1860s, which included investment in ports, factories and steamships and other capital intensive goods, was created by an overexpansion of railway systems worldwide encouraged by government policy.

A major cause of the bursting of the railroad bubble was a flu epidemic in the United States which made people avoid mass transportation as well as the Coinage Act of 1873 which removed the bimetallism monetary policy in the United States (a policy of both gold and silver as legal tender) for a gold standard only. There were many silver mines in the western USA so the Coinage Act created a sharp drop in the demand for the services of railroads and a collapse in the stock value of silver mining and related industries. The John Cook and Company bank declared bankruptcy in September 1873, which was due in part to the attempted funding of a second, unnecessary, intercontinental railway. Cook was not able to sell the onward financing of the planned railroad and suffered a great loss. The Cook bankruptcy may then have triggered a downfall of stock market prices worldwide (hardest hit were Vienna, Berlin, Paris, London, St. Petersburg and New York), which in turn led to a worldwide recession which lasted from 1873 until 1879, the worst of its kind until the Great Depression.

The Works Progress Administration

Perhaps the most well-known public works program is the Works Progress Administration (WPA) in the USA under the Franklin Delano Roosevelt administration during the Great Depression. During the life of the WPA (1935-1943), 25% of all American families had a member of their family employed by the WPA. In 1938 there were more than 3 million people employed by the program and during its life the WPA employed 8 million people who had 30 million dependents. The budget for the WPA was approximately 6% of national income and the WPA built or repaired around 120,000 bridges, 80,000 miles of city streets, 540,000 miles of rural highways, 25,000 miles of sewers, 1,100 water treatment plants, 18,000 parks and recreational buildings, 16,000 athletic fields, 500 airports, 36,000 schools and 6,000 administrative buildings.

It is unclear whether or not the WPA represents an example of a public works policy. Many historians, social scientists and economists have concluded that the WPA was a way to reduce the suffering of mass unemployment (unemployment averaged 17% in the USA from 1930-1940) and therefore was a “relief program” rather than a public works policy. Recent research has also shown that WPA projects were built in areas where it was expected that votes would do President Roosevelt the most good in gaining re-election. The Roosevelt Administration attempted to institutionalize public works policy into the federal government, with a proposed cabinet level public works and relief department, but this was not approved by congress.

Keynesian economists believe that government can use ‘fiscal stimulus’ to create demand in an economy when there is an economic slowdown and that public works programs are a way to do this. The WPA is oftentimes used as a successful example of this. However it is not agreed upon by economists whether or not the WPA created a stimulus or only provided temporary employment. It was not until the United States joined the Second World War that unemployment fell below 10%.

In summary public works policy makes up part of the fiscal, development, natural resources, public health and transportation policy of a given political entity. Public works, by their nature being public goods and natural monopolies, require a give-and-take between the private sector and between differing layers of government within a nation. How a public works policy is made depends on the type of political system and institutions involved. However public works are an important and indispensible part of an economy and there is a journal devoted to professional research on the topic, *Public Works Management and Policy*.

See Also: Economic Stimulus Plan, Employment and Unemployment, Fiscal Policy, Public Policy, 1937-1938 Recession, 1990 Japanese Asset Bubble Bust

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