Ideas and Origins of the Planning Commission in India

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“The ideas of economists and political philosophers, both when they are right and when they are wrong are more powerful than is commonly understood. Indeed, the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually slaves of some defunct economist.”

- John Maynard Keynes

I. Introduction

The origins of planning in India are part of a history where the threads of economic science, economic planning, and politics are deeply entwined. The purpose of this paper is to survey the different prominent ideas in the early twentieth century and show the influence of these ideas on Indian academics, intellectuals, and political leaders when the modern Indian state began to take shape.

The narrative proceeds through discussions of the central ideas and debates in economics in the late nineteenth and early twentieth centuries, including in particular the ideas that gained prominence following the waning of laissez-faire economics (discussed in section II) and later influenced Indian history: Soviet-style central planning (section III), fascism (section IV), American progressivism and institutionalism (section VI) and Fabian socialism (section VI). Related, I discuss the changing toolkit of economists with the increasing use of mathematics and statistics (section VII). While discussing the different ideas, the paper tracks the ideas and connects them to prominent Indian minds to help understand the journey that led to the Indian conception of socialist planning. The most important influence seems to have been that of Fabian socialists on the political class.

Meanwhile, to operationalize the Fabian ideals, the government increasingly relied on the use of mathematics and statistics as pioneered by the likes of P. C. Mahalanobis.

The discussion of the Indian experience with planning in the early twentieth century involves scientists, politicians, mathematicians, economics professors, theosophists, and leaders of the nationalist movement against the colonial government. I argue that the planning exercise in India can be attributed to two distinct factors. The first is the role of economic ideas in the socio-political movement for Indian freedom. These ideas created the foundation on which the economic policy of India was to be based. The second is the role of scientists and technicians who created the planning apparatus through which socialist ideas could be executed.
II. Laissez-Faire Abandoned
Adam Smith and the nineteenth-century classical economists viewed the system of natural liberty as one that harmonized self-interest and social interest. Consequently, they believed in allowing the market to function with minimum control by the state. Laissez-faire economics, after the publication of *The Wealth of Nations* in 1776, dominated the economics profession for the next 100 or so years.

However, in the late nineteenth and early twentieth centuries, the faith in markets began to wane. Marx’s ideas, especially as outlined with Engels in *Das Kapital*, gained popularity in Europe at that time. They gained the ultimate recognition when the 1917 Bolshevik revolution created a new state based on them.

Simultaneously, in the late nineteenth century the United States witnessed an ideological change toward progressivism. Unlike Marx’s ideas, progressivism largely supported markets, but with emphasis on greater state intervention. An example of this change was the Sherman Antitrust Act of 1890, followed by interventions in various other areas such as food and drug safety, agriculture, and monetary policy. These interventions peaked in the Wilson administration during World War I.

By 1924 John Maynard Keynes had written an obituary in an essay titled “The End of Laissez-Faire.” The criticism of laissez-faire took many different forms. First, that decentralized market activity does not lead to optimal economic allocation. Keynes, in his 1924 essay, particularly criticized the laissez-faire system for its allocation of savings and investment. However, this critique was more generally developed by utilitarians such as John Stuart Mill and Henry Sidgwick, and later by neoclassical welfare economists such as Alfred Marshall and A. C. Pigou. Externalities and tragedies of the commons were often cited as problems the market may not solve—later dubbed “market failures.” Second, that individuals acting in their self-interest may not know what they are doing, leading to poor

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1 See an article by the same title by Irving Fisher. Fisher, Irving. “Why has the doctrine of laissez faire been abandoned?” *Science* (1907): 18-27.
individual and social outcomes. Irving Fisher, in his essay explaining the reasons for abandoning laissez-faire, stated, “We cannot let any dogma of laissez-faire prevent us from checking suicidal ignorance.” Keynes’s work on allocation of savings and investments in an economy also echoes this sentiment about human nature.

A criticism of a different tenor came from Marxists. They were not concerned about the allocative efficiency of the laissez-faire system, but its distributive outcomes. Marxists thought the natural operation of decentralized markets will inevitably lead to a concentration of capital and wealth, thereby leaving the capitalist system fundamentally unstable and unjust. The only solution was to abolish private property.

Between the concerns over allocation and distribution, society moved away from laissez-faire toward more government intervention. However, observers reached no widespread agreement on what kind of intervention is necessary or sufficient in the economy. Different economists advocated different levels of intervention, and the early twentieth century witnessed economies led by socialists, progressives, Fabians, and fascists.

Although both the Cambridge school and the Fabians called for a greater role for government in the economy, economists of the Cambridge school were skeptical of collectivism. For instance, Alfred Marshall said that “economists generally desire increased intensity of State activities for social amelioration, that are not fully within the range of private effort: but they are opposed to that vast extension of State activities which is desired by Collectivists” (Marshall 1907, p. 19). Like Marshall, Fisher believed in greater intervention by the state, but did not go as far as the socialists: “We are doubtless to-day in danger of too much socialistic experimentation; but nothing can be gained and much may be lost by ignoring or condoning the opposite evils of individualism.”

The Fabians on the other hand admired the complete collectivization of the Soviet experiment and considered that the end goal to be reached using democratic social reform as a means and not all at once through revolution.

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It is in this climate of ideas that the Indian colonial experience, and eventually the Indian freedom movement, was taking shape. Indian intellectuals of the nineteenth century, such as Ram Mohun Roy, Dadabhai Naoroji, and Sir Syed Ahmed Khan, were influenced by British and Continental liberal philosophers. Many Indian liberals had written against the caste system (specifically because old Hindu laws punished different castes differently for the same crime) and lobbied for equal rights for men and women. Ram Mohun Roy was an advocate of “a limited government presenting a variety of checks on any abuse of its powers.” He argued for constitutional limitations constraining the British East India Company. He believed a strong free press and independent judiciary along with a voting citizenry were the future of India.

Over five decades prior to Indian independence in 1947, liberals who believed in British values and wanted to make them available to Indian citizens of the Crown had founded the Indian National Congress Party, which went on to play a leading role in the independence movement. Gopal Krishna Gokhale was inspired by liberal thinkers such as Edmund Burke and John Stuart Mill and believed in a free society with a limited role for the state in provisioning public goods and free education. Dadabhai Naoroji—an Indian liberal intellectual, a professor of mathematics and science at Elphinstone College in Bombay, and a Gujarati—became the first Indian to win a seat in the House of Commons, and eventually led the Indian National Congress. Naoroji argued that British economic policy was impoverishing Indians and that there was a drain of wealth from India to Britain, mainly through high taxation. Naoroji, however, supported British rule in India in general. He argued that the economic policy pursued in India was very “un-British” and that better policies that integrated Indian citizens into the empire and lowered taxes would benefit both Britain and India. At the time the population of the Indian subcontinent comprised about 80 percent of the British Empire, but the citizens of the subcontinent were unrepresented in the House of Commons. Naoroji decided to stand for election for a seat in the House of Commons.

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12 Ram Mohun Roy, *Asiatic Journal*, NS, 12, (1834), 212
14 Gandhi, perhaps the most important Indian leader in the early twentieth century, considered Gokhale his teacher and mentor. However, Gandhi felt Gokhale was too liberal in his ideas and faith in Western institutions. Gandhi believed more in village-level grassroots institutions.
Commons in 1886. He was defeated mainly because of racist attitudes against him.\textsuperscript{17} On his return to India he became the president of the Second Congress in 1886. In his presidential address, he emphasized the advantages of British rule in India and declared the loyalty of Indian citizens to the Indian government and the Crown. His main message was to improve the state of impoverished Indians through representation. He called for the Congress to gain better representation in the British parliament, and also in the Indian Civil Service, mainly as a means to rewrite the taxation policies of the colonial government.\textsuperscript{18}

Dadabhai Naoroji was also a liberal thinker and “first and foremost a constitutionalist.”\textsuperscript{19} He objected not to the capitalist system, but the taxation. Even though both Naoroji and Gokhale wrote extensively against the British Empire and supported self-rule in India, their demand was for a liberal and not a socialist society.

In the 1920s, the movement for some form of home rule or Swaraj gained momentum. At the All Parties Conference in 1928, Motilal Nehru, father of Jawaharlal Nehru, wrote a draft constitution calling for a democratic republic. This was the first constitution written by Indians only. It conceived of dominion status for India within the empire, read similar to the American Constitution, and outlined a bill of rights. But with time, and with the passing of leaders like Gopal Krishna Gokhale, the strong liberal fervor within the party was fading away.

As intellectuals moved away from laissez-faire in Europe and the United States, Indian leaders educated in England in the early 1900s who grew to prominence in the 1920s onward grew more inspired by socialist ideas. In the large-scale exercise of the freedom movement and nation building in the 1930s, socialism was a foregone conclusion. The type of socialism, the precise development plan, and the immediate and long-term goals of the leadership were yet to be worked out.

The ideology of planning gradually found its way into the heart of the burgeoning independence movement, the Indian National Congress. A Congress Socialist Party, spearheaded by Nehru and consisting of ardent socialists and planning enthusiasts, was formed within the broader fold of the congress in 1934. More importantly, the congress


\textsuperscript{18} Second Congress, Naoroji Address 1886, Calcutta.

\textsuperscript{19} Doctor, Adi Hormusji. \textit{Political Thinkers of Modern India}. Mittal Publications, 1997, p.28
organized the National Planning Commission in 1938 to chart out in greater detail the role that state planning could play in aiding the growth of the nation. The National Planning Commission met at intervals throughout the late 1930s and early 1940s, coming up with proposals that greatly influenced the goals and the institutional structure of the planning mechanism in independent India.

In addition to the National Planning Committee’s report, intellectuals, activists, and technocrats also worked on economic plans for India.20 By the end of the Second World War, socialism was the new orthodoxy in Indian politics. This orthodoxy led to the adoption of central economic planning when India gained independence from the British in 1947. Eventually the Fabian model was adapted to the Indian situation, reflecting some elements from each of the plans, and adopted by the first few governments in post-colonial India.

III. Soviet Socialism

Lenin led the Bolsheviks, after the October Revolution, to form a new government based on the ideas of Karl Marx. But this was not an easy task. Marx’s ideas had captured their imagination, at the time of the revolution, but they never delineated how the economic system would be organized under socialism.21

When the time came to execute Marxist ideas, planners were faced with an intellectual vacuum. Nobel laureate Leonid Kantorovich observed in 1989 that “the economic theory of Karl Marx became the methodological background of the new created Soviet economic science and of the new control system. A number of its important and fundamental statements on general economical situations turned out to be applicable immediately to a socialist economy. However a practical use of Marx’ ideas needed serious theoretical research.”22

Lenin’s government ran with two basic ideas – nationalization of property, and central planning - and began perhaps the greatest transformation of the economy at the time. The Bolsheviks immediately established a central planning agency known as the Supreme Economic Council. The council nationalized the banking system, controlled foreign trade,

20 For a systematic comparison of the four plans see Nag, Daya Shankar. “study of economic plans for India.” (1949).
21 White, Lawrence H. The clash of economic ideas: The great policy debates and experiments of the last hundred years. Cambridge University Press, 2012., p. 28-31
nationalized large industrial enterprises with labor committees in control of the factories, nationalized small businesses, completely outlawed private trade, private hiring, and private leasing of land, and even tried to eliminate the use of money.  

The result of the policies of the Supreme Economic Council was far from what the Marxists had envisioned, and nothing short of calamitous. Industrial output under this plan plummeted, food shortages were widespread, and fear of starvation consumed the countryside. Lenin introduced the New Economic Policy (NEP) in 1921, which readmitted market exchange, allowing peasants to sell their produce and substituting a lower percentage tax for the previous confiscations. Small businesses and services were denationalized, and private trading was once again allowed. The economy improved under Lenin’s NEP.

Meanwhile, Marxist-Leninist ideas went well beyond Russia and influenced governments in Central Europe, such as Hungary and Bavaria. The influence of socialist ideas in Vienna affected the broader discussion of economic ideas. With the political victory of the social democrats, socialist planning was inevitable. E. H. Carr has chronicled the impact of the revolution on Europe and Asia and described it as the coming of a new “true democracy.”

The Soviet system was a huge inspiration to Indian students in England and Continental Europe at the time. A number of student groups and associations had deep communist connections or communist sympathies—for instance, the Federation of Indian Students’ Societies in Great Britain and Ireland, the League Against Colonial Oppression, India League, Hindustan Community House, Cambridge Majlis, Oxford Majlis, and the Committee of Indian Congressmen. Special groups, such as Progressive Writers Association, the Left Book Blub, and the Oriental Printing Press, supported writers. Some of the organizations brought out their own publications, with, for example, the Federation of Indian Students’ Societies in Great Britain and Ireland producing a quarterly journal called the Indian Student. These organizations, though in England, were quite influential in India. For instance, the League Against Imperialism formulated a colonial policy based on communist ideals. Because of a strong connection between the Indian student nationalist

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25 There are details on each of these organizations in the Making Britain Database—an online database provides information about South Asians in Britain from 1870 to 1950, the organizations they were involved in, their British connections, and the major events in which they participated. See http://www.open.ac.uk/researchprojects/makingbritain/Organisation_v
movement and communist ideas, a number of young Indians visited the Soviet Union. Many young Indians nationalists, such as Jawaharlal Nehru and Minoo Masani, visited the USSR in 1927 for the tenth anniversary of the Bolshevik revolution and were fascinated by the working of its socialist experiment.

Describing this visit, Nehru wrote, “The contrast between extreme luxury and poverty are not visible, nor does one notice the hierarchy of class.” In this gushing travelogue written in 1927, Nehru concluded that the “Soviet Union treated its workers and peasants better, its women and children better, even its prisoners better.”

In a syllabus of academic and intellectual readings publicized in the 1930s by the then socialist wing of the Congress party, the author writes: “It will be noticed that this syllabus contains only books in favour of socialism. It may be asked why no books have been included which argue against it, for are there not two sides to every questions? We emphatically deny the validity of the later proposition. For a man of action, and every socialist is a man of action, there is only one side to the question. No action is otherwise possible.” This reading list was one of the many hundreds of pamphlets distributed in the 1930s and 1940s to publicize and educate on the nature of development problems, and solutions, in India.

But many in the Indian nationalist movement could not reconcile themselves with certain aspects of the Soviet system, most specifically the restrictions on speech and press. Nehru, after he became Prime Minister, in a letter to state chief ministers, wrote: “Thus far we see a full-blooded socialism, if that is the right term, working in Communist countries, together with the accompaniment of authoritarian control and an absence of the democratic approach….Certain economic results are undoubtedly obtained that way, but the price paid is heavy.”

This sentiment against following the Soviet model completely was not unique to Nehru, but prevalent in the socialist thinking of the time in India. The Indian freedom movement can be characterized as Gandhian—nonviolent, noncooperative, and involving civil disobedience by large masses of people making it difficult for the British to govern India. The centralized dictatorial control of the Soviet system would not have received

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27 Socialist syllabus foreword by SP Sinha of the Patna branch of Congress Socialist Party. Note edited by Nehru. See JN Papers, NMML.
acceptance of the Congress Party or the people at large. The Congress Socialists urged the Congress to be more sensitive to the rights of workers and peasants and detested the Soviet Union.\textsuperscript{29}

One young Indian nationalist, Minoo Masani, was quite enamored with the Soviet system during his time at the LSE. However, he later changed his position, mainly in response to the coercion involved in the Soviet system—an idea at odds with his Gandhian values. By 1940, Masani was very critical of socialism, communism, and Marxism and wrote a detailed critique, \textit{Socialism Reconsidered}.\textsuperscript{30} He attacked the methods used by communists and socialists, such as abolition of private property, as never leading to an equal society. Some of these ideas are reflected in his views as a member of the Constituent Assembly. By the ’50s, Masani embraced liberalism and put up a healthy opposition to the government’s socialist policies.

While activists and intellectuals across the world debated the desirability of socialism, simultaneously, economists debated the execution and feasibility of socialist calculation. One of the most important debates in the twentieth century was the socialist calculation debate. Ludwig von Mises, in his paper in 1920\textsuperscript{31} followed by the 1922 book \textit{Socialism}, explained why the socialist system of planning cannot be executed. Socialism required social ownership of the means of production and the abolition of private property. Mises argued that without the private ownership of the means of production, there would be no exchange of these means of production, and therefore no exchange ratios. Without market prices emerging from exchange, the planners cannot calculate profit and loss, and therefore cannot rationally allocate these goods.\textsuperscript{32}

This critique questioned the core of the socialist system, which had not resolved how to allocate production. A second issue was that without prices reflecting the scarcity of each good, it was impossible to determine the appropriate production process. Unable to calculate profit and loss, the state would be at sea without a compass.

Given the impossibility of rational economic calculation in socialist planning, F. A. Hayek demonstrated the institutional structure that would emerge from the failure of

\textsuperscript{29} Masani, Minocher Rustom. \textit{Socialism Reconsidered}. Padma, 1944.
socialist planning to achieve its desired results. With rational economic calculation impossible, planners require unlimited discretion to execute the plan.\textsuperscript{33}

While the Misesian critique made a big impact, it did not make socialist planners deviate from planning. Oskar Lange provided one answer to the Misesian critique.\textsuperscript{34} Lange’s proposed solution involved consumer goods being sold privately in the market, with the means of production under central planners’ control. Lange proposed that the central planners would set initial prices and have state firms minimize costs subject to the preset prices. Any resultant surpluses or shortages would be communicated back to the planners, who would adjust prices and quantities in the future. Lange’s error was in assuming that once the set of equilibrium prices was reached by planners, this state of equilibrium would remain stable. The Lange solution, lauded at the time for solving the problem of socialist calculation, ignored the role of incentives of the individual decision makers within the socialist economy and the process by which information emerged and was communicated in a market economy. But mainstream economists largely accepted the market-socialist solution to the calculation problem.

Just as the ideas of socialism found political support, Indian economists supported planning. Based on the ideas of Lange and Abba Lerner, and the plans created by GOSPLAN, Indian economists set to work. During the 1930s and 1940s many plans were created for the specific needs of India’s development problems. The first emerged in 1934—by the then-revered engineer M. Visvesvarayya. The essence of his plan was to industrialize India, and double national income every ten years. In the 1940s came the Bombay Plan—chaired by Sir Ardeshir Dalal and drawn up by a group of industrialists—attempting to outline the nature of the various sectors of the mixed economy. The People’s Plan, crafted by Marxist M. N. Roy and encapsulating the position of the more radical communist left, perhaps closest embodied the ideas of Lange-Lerner and the Soviet planning exercise. And the Gandhian Plan of S. N. Agarwal, which emphasized a self-sufficient closed economy, preserved the village as the unit of economic activity.

In an academic culture in India dominated by economists working on and supporting socialist policies, B. R. Shenoy was the only one to side with the ideas of Mises and Hayek and discuss the problems of socialist calculation. Shenoy’s criticism of Indian planning began

\textsuperscript{34} Lange, Oskar, Fred Taylor, and Benjamin Lippincott. \textit{On the economic theory of socialism}. University of Minnesota Press, 1938.
with his famous “Note of Dissent” regarding the draft of the Second Five-Year Plan.\(^{35}\) One of twenty economists on the government advisory panel, he was the sole dissenter.\(^{36}\) Other Indian economists either took the Lange-Lerner position as a given, and worked on other aspects of the planning problem, or made minor changes to the Lange-Lerner position to better adapt it to the Indian economy.

Shenoys’ views opposed those of international luminaries such as Oskar Lange, Nicholas Kaldor, Joan Robinson, Gunnar Myrdal, and Ragnar Frisch, who were all enthusiastic supporters of the Indian experiment with planning. Shenoy was ignored and these luminary economists captured the imagination of a much more powerful intellectual within the political planning movement – PC Mahalanobis (discussed in section VII).

IV. Fascism/Nazism

Departing from the Soviet model of planning, fascist economics attempted to reconcile totalitarianism with individualism. One might say that the middle course fascism steered between a competitive and a collectivist economy led, in practice, to a heavily monopolistic-interventionist society with extensive governmental control of prices and capital investments and large “socialization of losses.”

It is difficult to identify any fundamental theoretical or analytical framework of fascist economics. Wilhelm Röpke argued that at best, one can develop a set of themes or ideas, without theoretical underpinnings, to understand fascist economics. Some themes or ideas seen in the development of fascist economics are illiberalism, totalitarian control in economic choices, economic nationalism, and militarism.\(^{37}\)

Fascism retains nominal private ownership of business but puts government in close control of major investment and production decisions. The best-known version of fascist economics in action comes from Italy, led by Mussolini from 1922 to 1943. Fascism took the form of a system of cartelization and planning by “corporatives”—government-business-labor boards with government the controlling partner. Cartels or guilds essentially controlled output and kept prices high and competition at bay. In return, producer guilds catered to the resource needs of the fascist government and fueled its militarist ambitions.


In Hitler’s Germany, the ruling party that imposed fascist economic policies called itself the National Socialist German Workers Party, or Nazi Party for short. Under Hitler the German economy was increasingly controlled by the government. Each policy led to the next policy intervention, and soon Nazi policies were eerily similar to totalitarian planning in the Soviet Union. German economist Walter Eucken details the consequences of the New Plan in 1934 leading to greater levels of economic control by the Nazi Government. The important distinction, as pointed out by Eucken, is that the German control of the economy was accidental, with each intervention creating subsequent need for more intervention. This was unlike central planning, where the intention was to control allocation of resources across all sectors and industries.38

While fascist economics had the rhetoric of class theory, unlike Marxist economics it had no fundamental principles of economic interests and class. It differed from communism because it required no revolutionary changes to the economic and social structure of society to support the classes that helped it into power.39

Fascist economics was known to Indian intellectuals in the 1920s and 1930s. M. K. Gandhi had interacted with Mussolini and seemed quite impressed with his plans in general. However, in 1931 Gandhi expressed his mixed opinion of fascism as he wrote to Romain Rolland:

“Mussolini is a riddle to me. Many of his reforms attract me. He seems to have done much for the peasant class. I admit an iron hand is there. But as violence is the basis of Western society, Mussolini’s reforms deserve an impartial study. His care of the poor, his opposition to super-urbanization, his efforts to bring about co-ordination between capital and labour, seem to me to demand special attention.”40

After the events of Kristallnacht on November 9–10, 1938, the Indian National Congress made a declaration against Hitler’s Germany.41 In the Jewish Tribune, Nehru called Hitler’s government an “amazing tyranny” that had no human standards.42 Gandhi was similarly sharp in his criticism of Hitler’s regime, and Gandhi provided the main impetus to

42 January 1939, pp. 9
support the British in WWII, despite seeing the colonial government as an oppressor.

The main support for fascist ideas came from Subhash Chandra Bose - the president of the Indian National Congress in 1938. While Bose condemned the events of Kristallnacht, and was critical of the racist policies of the Nazi government against Jews, blacks, and other people of color; he saw an Indo-Germanic alliance as valuable in overthrowing the colonial British government in India. Bose also had strong communist and fascist leanings in his economic views, and saw the state as a valuable player in economic planning. In *The Indian Struggle*, Bose called for a synthesis between communism and fascism and started the planning wing within the Congress party to create an economic plan for liberated India.

Sareen argues that Bose was not interested in the ideology of Nazi Germany but was collaborating with it to liberate India. 43 However, Zacharias documents how Bose alienated himself from Nehru over the Nazis because he wanted to maintain Indo-Nazi relations while Nehru wanted to give asylum to the Jews. Nehru later noted in his private correspondence with Bose, “You will remember that just previously there had been a terrible pogrom in Germany against the Jews and the world was full of this. I felt that we must express our opinion in regard to it. You say that you were ‘astounded when I produced a resolution … seeking to make India an asylum for the Jews.”

Despite some support for the Nazi government and some strong relations formed in the 1920s through student-exchange programs between India and Germany, after 1938, support for the Nazis declined markedly. Because of the Gandhian and nonviolent nature of the Indian nationalist movement, the Indian political and intellectual elite had a conflicted view of fascist economics, but they eventually condemned fascism and Nazism for political reasons, mainly their military agenda and overall repression of minorities. As in the rest of the world, in India Fascist and Nazi economics was now inseparable from the pogrom. The rejection of political oppression also meant a decline in support for the economic ideas.

V. American Institutionalism and Progressivism


Americans had some experience with state intervention in the market during WWI when the Woodrow Wilson administration implemented war controls and rationing. While ideas of state planning were taking root in Europe, Americans were not completely insulated from it. Institutionalism in America had its origins in Europe. The historical school politically opposed classical liberalism, and methodologically opposed the abstract theorizing of the older, classical and the newer (post-1871), neoclassical economics. Many American economists were trained in Europe and were exposed to the historical school of economics.

An important economist in this era was Thorstein Veblen. In his book *The Engineers and the Price System* (1921), Veblen characterized businessmen as monopolists seeking to restrict output, raise prices, and increase profits. He advocated state intervention where engineers could run the modern economy better and more efficiently than the decentralized price system. This kind of engineering would eliminate monopolies, wasteful competition, and advertising, thereby increasing efficiency. Cartelizing different sectors of the economy and directing the economy through boards was another form of the state engineering advocated by Veblen. Some of Veblen’s policies were so similar to socialist planning that many debate whether Veblen was an institutionalist or a socialist.45

Other important economists publishing in the American institutionalist tradition at this time were Simon Patten, Richard T. Ely (also the founder of the American Economic Association), and John R. Commons. The American Economic Association is one of the most (if not the most) important groups of economists in the world today. However, the ideas of institutionalists did not persist, even in the association they founded, mainly because of the Great Depression and the Keynesian revolution.

If socialism as an economic system followed one great event—the October revolution—in the United States, the analogous event was the Great Depression. Similar ideas of interventionism and planning were taking root even in the early 1920s, but the Depression years hastened these policies. Two economists were very influential in the Depression and post-Depression years: Rexford Tugwell and John Maynard Keynes.

Rexford Tugwell was a student of Simon Patten (student of the German historical school) and later became one of the most important economic advisors when Roosevelt took office in 1933. Tugwell saw in Italian fascism an economic policy model with some

45 White, Lawrence H. *The clash of economic ideas: The great policy debates and experiments of the last hundred years*. Cambridge University Press, 2012. p. 117
attractive features. He wrote that Mussolini’s regime was “doing many of the things which seem to me necessary” and was “the cleanest, neatest [sic], most efficiently operating piece of social machinery I’ve ever seen. It makes me envious.”

Tugwell wrote: “I have said plainly, that there is much to be said for economic isolation, that it is here to stay, and that therefore laissez-faire is dead.” In an earlier speech Tugwell was equally blunt: “There is no invisible hand. There never was.”

Before 1935 many progressives could and did admire aspects of fascism’s economic system, despite their distaste for its repression of civil liberties. American expressions of admiration for Mussolini’s economic policies declined and eventually stopped as he allied with Hitler.

While Tugwell was actively involved in specific policy initiatives, during the 1930s two of the most important questions faced by economists were the reason for the Depression and the prolonged nature of the Depression.

John Maynard Keynes gave the following explanation for the Depression. He argued that the market economy had collapsed on its own, had become trapped in a vicious cycle from which it could not free itself. The vicious cycle starts with the general public saving its income by hoarding money, rather than spending it on consumption goods or financing capital investment. This kind of saving is a leakage from the economy, reducing expenditure and therefore reducing output, a process known as the “paradox of thrift.” In this event, consumer- and capital-goods industries face losses. And with the piling up of these losses, individuals and banks invest and lend still less to business, and further hoard their income. The inability to exit this cycle causes a prolonged depression, and the economy needs help from the state.

The form of intervention suggested by Keynes was to change monetary policy to break out of this cycle and restart the process of growth. Keynes’s prescription was that government spending could boost aggregate demand to recover from the depression. Another way to boost aggregate demand was increasing spending on public works, leading to greater employment and therefore greater demand for goods.

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47 Quoted in White, Lawrence H. *The clash of economic ideas: The great policy debates and experiments of the last hundred years.* Cambridge University Press, 2012. p. 120
In sharp contrast to Keynes was F. A. Hayek’s theory of the Depression. In Hayek’s theory the crisis was the result of credit expansion having allowed investment to outrun voluntary saving, so government policies to augment consumption demand at the expense of saving would only worsen the crisis. In other words, the expansion was the error, and the contraction is the correction. Following this, Hayek’s policy prescription was to do nothing and let the market naturally adjust and recover from the effects of the credit expansion.

Fundamental to Keynes’s argument was his view of the market for loanable funds. In Hayek’s theory, the interest rate clears the market for loanable funds, equating the quantity supplied (savings including the earnings retained by business firms) with the quantity demanded (principally for investment). Unlike in standard classical theory, in Keynes’s theory interest is not the price of intertemporal exchange, not a reward for waiting or deferring consumption, but a reward for parting with liquidity.

Although Keynes’s critique of markets and his prescriptions for state intervention were radically different from the orthodoxy at the time, Keynes fundamentally believed in markets and explicitly rejected socialism. He suggested that the capitalist economy was having “magneto” (alternator) trouble, as against the socialist idea that the entire automobile should be replaced. Keynes did not want to abolish markets the way communist thinkers would. Keynes explicitly rejected Russian communism for three reasons: (1) it “destroys the liberty and security of daily life”; (2) its Marxian economic theory is “not only scientifically erroneous but without interest or application for the modern world,” and its Marxist literature more generally is “turgid rubbish”; and (3) it “exalts the boorish proletariat above the bourgeois and the intelligentsia”—in other words, it sneers at people like Keynes and his circle.

Though competing explanations were offered by Keynes and Hayek, at the time, Keynes’s analysis and policy prescription caught on remarkably fast and within a decade became part of the mainstream economic explanation of and solution for the Great Depression. At the time, Keynesianism was viewed as the solution.

Keynes and Hayek had different connections to Indian intellectuals. While many Indians studied at the London School of Economics, Hayek’s ideas on business cycles does

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48 Quoted in White, Lawrence H. The clash of economic ideas: The great policy debates and experiments of the last hundred years. Cambridge University Press, 2012. p. 130
not seem to have captured the imagination of Indian students generally. BK Nehru recollects that Indian students were much more influenced by the political science department than the economics department. While Nehru took classes with some economists, especially Lionel Robbins, about Hayek in particular, he wrote, “Professor Hayek from Vienna who was so much beyond me that I had to give him up fairly early.”

BR Shenoy discussed earlier in this chapter is perhaps the only major intellectual connection with Hayek at the time.

Keynes had a strong India connection as he had worked in the India Office for a few years, and influenced many Indian students at Cambridge. Keynes had varied contacts with Indian students at Cambridge, academic and social, as an undergraduate and Fellow of King's, as President of the Cambridge Union, as Secretary of the Cambridge University Free Trade Association, as a frequent guest speaker at the Cambridge Majlis (the Indian students' society), as founder of the Political Economy Club, and as University lecturer in economics. Keynes came to the defense of Indian students at Cambridge amidst great controversy over an article advocating limiting the number of Indians to Cambridge. Through the political economy club he influenced students like VKRV Rao (who later set up the Delhi School of Economics, and was the Planning Advisor for the Food Department in India) and LK Jha (who became the Governor of the Reserve Bank of India in the late sixties), and in later years IG Patel, who served as the Chief Economic Advisor in India.

However, both during his time at the India Office, and after in his writings on India, Keynes only limited himself to very specific policy questions on the Indian monetary system, and did not concern himself with the larger question of the welfare of the Indian citizens under colonialism, imperial economic policy, and high taxation and wealth extraction—which were the burning questions among Indian nationalists.

The Keynes Hayek debate on business cycles was against the backdrop of the Great Depression, but was taking place in England, and not the United States. During the depression, in the United States, Tugwell perhaps had the most influence over policy. Tugwell believed that the Great Depression had been caused by industrial overproduction that had clogged markets, driven by myopic profit seeking and abetted by the absence of any

51 Ibid, pp 153-160
52 Ibid, pp. 134-139.
top-down oversight of the economy to prevent such problems. Tugwell was named assistant secretary of agriculture in 1933, the position he held while helping to devise the economic centerpieces of the early New Deal, the National Industrial Recovery Act and the Agricultural Adjustment Act.

Just as competition among nations leads to war, Tugwell suggested, the Great Depression shows us that competition among business firms is similarly destructive and wasteful: “War in industry is just as ruinous as war among nations,” while “order and reason are superior to adventurous competition.” The alternative was central economic planning, which Tugwell preferred to call “national planning” or simply “planning.” Here we might, when we are ready, “discover lessons in contemporary Russian practice.” In return, Tugwell promised, central planning will right capitalist society’s major wrongs, which he enumerated as “violent contrasts of well-being,” “irrational allotments of individual liberty,” and “unconstrained exploitation of human and natural resources.”

American institutionalism and progressivism did not have a major influence on Indian academics and activists at the time of their peak in the United States because not many Indian students traveled to the United States for an education. While hundreds of students went to England and Europe, few came to American universities, mainly because of the distance and a lack of awareness of employment opportunities awaiting those with an American degree. A British education on the other hand could be used to gain entrance to the civil services, legal profession, and so on in India.

Two notable members in the Indian nationalist movement came to the United States. The first was Bhimji Rao Ambedkar, an Indian intellectual from the untouchable caste. He received a PhD in economics at Columbia University, and then went to England to the London School of Economics for a DSc and to Gray’s Inn to study for the Bar. Ambedkar’s exposure to economic ideas was at Columbia University, a stronghold of the institutionalists. He took various economics courses both in specific subjects such as monetary policy and public finance, and in the history of ideas from Adam Smith to modern-day institutionalists and socialists.

Ambedkar’s economics mentor was Edwin Seligman, best known for his work on the progressive income tax and for being one of the founding members and early presidents

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53 Quoted in White, Lawrence H. The clash of economic ideas: The great policy debates and experiments of the last hundred years. Cambridge University Press, 2012. p. 120
of the AEA. Ambedkar wrote a dissertation for his PhD titled *The Evolution of Provincial Finance in British India*.\(^{54}\) His thesis was critical of the imperial British system and its harmful effect on Indian development.

Ambedkar was also inspired by various progressive and socialist reformers at Columbia university such as John Dewey and James Harvey Robinson. He took courses on American and world history, politics, sociology, and anthropology, and had a deep interest in social reform. The other major publication coming out of the Columbia experience was a paper called “Castes in India, Their Mechanism, Genesis and Development,” given first in a seminar with Alexander Goldenweiser in the anthropology department.\(^{55}\) Ambedkar, however, did not spend the Depression years in the United States and left to pursue his legal studies at the LSE.

The second notable Indian in the United States was Jayaprakash Narayan, who was there during the Roaring Twenties. Narayan went to Berkeley, and had to work in the fields and in many service jobs in hotels, restaurants, and the like to pay for his tuition and living expenses. Due to increases in tuition, he was forced to transfer among the Universities of California, Iowa, Wisconsin, and Ohio. During his years as a student, Narayan experienced the difficulties of the working class first hand, and found it difficult to get an education while making ends meet even in a sophisticated economy such as the United States.
Simultaneously he was introduced to Marx’s ideas in Wisconsin, which made a big impression on him. Though Narayan studied sociology and not economics, he had strong views on the working of the economic system, and was a Marxist when he left the United States and returned to India in 1929.

VI. **Fabian Socialism**

A third strand of non-laissez-faire economics emerged from the Fabian Society. Founded in 1884 in London, it was a group of individuals who left the radical socialists and utopian socialists to create a society that focused on evolutionary socialism. The society took a gradualist approach to changing the economic system with the end goal of creating a

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54 Published in 1925 by P.S. King and Company, London.
democratic-socialist state in Britain.

The general Fabian view was that the wages and position of labor had improved through the nineteenth century in part because of the various social-reform legislations on education, factories, housing, and the like. The idea was to continue this trend and create a political framework to gradually move toward more equitable distribution of wealth and eventually the public ownership of capital and property in society. This social-reform program was not to be conducted by the masses or the proletariat, as in Marxist socialism. This change was to be brought about without a revolution, through legislation by experts.

George Bernard Shaw and Sidney Webb became the movement’s intellectual leaders, writing short tracts and publicizing them to mobilize a new kind of socialist thought. Other early members were Annie Besant and Graham Wallace. From the 1880s to the 1930s the society turned out more than 200 “Fabian Tracts” advocating social democracy.

One institution built by the efforts of the Fabians was the Labour Party. Sidney Webb helped with its founding in 1900 and served in important executive positions and as a member of Parliament. He coauthored election manifestos and the party constitution that was adopted in 1918. The manifesto listed the “four pillars” of the party platform as (1) the universal enforcement of the national minimum; (2) the democratic control of industry; (3) the revolution in national finance; and (4) the surplus wealth for the common good. In the interwar period, the Fabians grew in prominence and essentially shaped socialist legislation and policy in British politics through the Labour Party.

In 1891 another important member, Beatrice Webb, wife of Sidney Webb, joined the Fabian Society. Together the Webbs founded the London School of Economics and Political Science in 1895. Another influential Fabian, William Beveridge, served as the university director of the LSE from 1919 to 1937. The interwar years were extremely important for the LSE as an international and cosmopolitan institution. The LSE positioned itself as an alternative to the elite schools such as Oxford and Cambridge, which the Fabians believed did not engage middle class and blue collar students, issues, or faculty. The Fabians had a clear position against the imperialist and colonial policies of Britain, and attracted a lot of interest from the international students from various colonies, especially in South Asia and Africa.

One of the most influential Fabian professors at the LSE was Harold J. Laski, professor of political science. Laski’s book *A Grammar of Politics* (1925) detailed the case for Fabian socialism. In the 1930s Laski drifted from Fabianism to a more Marxist socialism, and published a number of books including *Democracy in Crisis*, outlining Marxist ideas. In addition to being the most prominent Fabian voice at the LSE, Laski was the most beloved teacher. He had an immense following of British and international students, and he and his wife welcomed these students beyond the classroom into their home and lives.

Laski had a complicated relationship with the Soviet socialism, and he both embraced and critiqued the system. In his 1943 book Laski criticized the repression of personal liberties in the Soviet Union, but at the same time romanticized Bolshevism as the system that genuinely attempted to search for a new form of democracy and freedom. Unlike Laski, the Webbs were completely taken with the Soviet model, which they had fallen in love with during their visit in the 1930s. They wrote a book called *The New Civilization* describing and highlighting the Soviet system of socialism and its consequences.³⁷

No narrative of socialism in India can be written without talking about the role of the LSE. Indian ideas of socialism were essentially a variant of Fabianism. The founders of the LSE represented a reaction “against individualism and laissez-faire, cosmopolitanism and free trade and against the rule of intelligent amateurs who had emerged from real and would-be upper-class families, from the public schools, from Oxford and Cambridge.”³⁸

Unlike the conservatives or liberals at the time, the Fabians were particularly interested in the treatment of citizens in British colonies. The society organized lectures to introduce the new scholars and ideas of socialism. For our story, two members of the Fabian Society are immensely important: Dadabhai Naoroji and Annie Besant.

After his prior defeat, Naoroji stood for election once again in 1892 to put his ideas into action, and was elected to the constituency of Central Finsbury, with a majority of three votes. Though he was a member of the Liberal Party, his victory followed, in part, from his involvement with the Fabian Society in London, which supported the candidacy of an Indian facing racism in London.³⁹

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³⁹ Shaw, Bernard. *The Fabian Society: What it has Done; & How it has Done It*. Fabian Society, 276 Strand, London, WC August, 1892.
Annie Besant was involved with the Fabian Society from the very beginning because of her close association with G. B. Shaw. She attended the first conference in 1886 and gave a presentation on socialization of capital. Even though she was not an active member of the Fabian Society, she joined the Theosophical Society and moved to India to its headquarters. This group was extremely instrumental in the Indian nationalist movement, and many more Indians became connected to the LSE and Fabians through Besant’s presence in India. Besant also campaigned for the rights of Indians and for Indian “home rule.” She launched the Home Rule League in 1916, modeling her view of the Indian plight on that of Ireland. In 1917 she became the first woman president of the Indian National Congress at a session in Calcutta.

One of Besant’s most important influences was on V. K. Krishna Menon, whom she personally mentored. Menon studied at the London School of Economics under Harold Laski, gaining a BSc and an MSc in politics as well as a teaching diploma. He was one of the most successful Indian students of Harold Laski, and they also developed a close personal friendship over the years.60

Menon was the link in the next generation (after Naoroji and Besant) between the Indian nationalist movement and the Fabians in London. He transformed Annie Besant’s Home Rule League for India (renamed Commonwealth of India League in 1922) into the India League in 1928. The India League was a Britain-based organization whose aim was to campaign for full independence and self-government for India. Menon became joint secretary of the Commonwealth of India League in 1928 and radicalized the organization, rejecting its objective of Dominion Status for the greater goal of full independence, a departure from the previous generations in the Indian Nationalist Movement.

Menon was extremely close to key members in the Fabian Society and the Labour Party. Menon relentlessly lobbied for the Indian cause through Labour MPs in the British Parliament. He also became the focal point of the Indian nationalist movement in London from the 1920s until Indian independence. He mobilized British and Indian students toward the cause of Indian independence, and was personally responsible for the careers of many Indian students studying in Britain.

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60 Minutes to the Meeting of the Executive Committee of Laski Society December 17, 1951 (LSE Archives)
In addition to Menon, two important leaders of modern India had their intellectual roots at the LSE. The first, and perhaps the best known, is Jawaharlal Nehru, who went on to become the first prime minister of India. He studied at Harrow (1905–7), and then went on to Trinity College, Cambridge, to complete his natural sciences Tripos, 2nd class (1907–10). In his autobiography he wrote that he was “hovering about” London studying for his Bar examinations. He was called to the Bar in 1912. It is from his time in London that he formed close relationships with members of the Fabian Society, in particular G. B. Shaw and Harold Laski. He heard G. B. Shaw at a lecture in London and was introduced to other Fabians, including Laski, by Menon, with whom he formed a close relationship. Menon went on to serve in Nehru’s cabinet in the 1950s.

The second was B. R. Ambedkar, who studied at the LSE after receiving his PhD in economics at Columbia University. He then went to Gray’s Inn to study for the Bar. He went on to become the architect of the Indian constitution, as the chairman of the Drafting Committee and a member of Nehru’s cabinet in the 1950s. Ambedkar was a member of the Fabian Society and also a student of Laski’s, and the dual principles of political and economic equality are very consistently seen in his work on the Indian constitution.

B. K. Nehru, cousin of Jawaharlal Nehru and another Indian student at the LSE in the late 1920s, astutely observed that “Indian students in particular were all Left-wing; the more extreme they were the more patriotic they were considered to be. The explanation was simple: the burning issue for us [Indian students] was Indian independence; the socialists and communists supported it; the capitalists and Conservatives opposed it. Ergo, socialism (or communism) was good; capitalism bad.”

Students interested in the nationalist movement gravitated to the Fabians because they were the only group interested in the Indian cause. It is not surprising that these students were more exposed to and therefore more likely to be influenced by Fabian ideas. And eventually these students were involved in the Indian nationalist movement, mainly the Indian National Congress. This was the group that successfully won the freedom movement and transitioned from the colonial government to form its own government. And the socialist members of the nationalist movement were in key government positions.

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Laski was an important influence for Indian students in this regard. B. K. Nehru was “received with the utmost courtesy” by Professor Laski, “who gave me then, and throughout my stay, more personal attention and more affection than my academic or other achievements ever deserved.” Laski took such a personal interest in both the Indian nationalist cause and the welfare of Indian students at the LSE that he became the intellectual focal point for Indian students at the LSE. A biographer of the movement writes, “Tributes written in India, at the Laski Institute in Ahmadabad, betray the lasting gratitude of Indians to the man who stood up for their independence early, who propounded a view of the modern state which seemed relevant, and who taught many of those who led the new country in its early stages.”

B. K. Nehru also observed that “the students of the LSE were then extremely left wing- the large majority were socialists or communists; so was the thinking in the Political Science Department, which dominated our thinking, rather than the Economics Department which was always more conservative.” Nehru took some economics courses, and enjoyed classes of Lionel Robbins but wasn’t as captivated by Hayek.

In contrast, B. R. Shenoy was highly influenced by F. A. Hayek. Shenoy was a graduate student at the London School of Economics when Hayek delivered the lectures that formed the basis of Prices and Production. Shenoy was so smitten with the Austrian tradition that, according to his daughter, “after studying Austrian theory, he said he was immunized against every other framework.” Shenoy was not very involved in the Indian political movement and had little to no influence in policy for most of his life. He remained the sole dissent to the Indian planning exercise, where his dissent came from outside of the policy machinery and was completely ignored.

On the other hand, Laski’s students went on to become future presidents, prime ministers, cabinet ministers, senior civil servants, and important members of the Planning Commission of India. Guha recollects the remarks of an unnamed wit in the 1950s that “in

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VII. The Apparatus of Planning

Parallel to, and perhaps not unrelated to, the new ideas in political economy, was a much greater use of mathematics and statistics in economics. And this major change percolated to Indian economists, most notably through P. C. Mahalanobis.

Paul Samuelson begins his Nobel Prize lecture by stating, “The very name of my subject, economics, suggests economizing or maximizing.” While Samuelson traces the maximization problem concerning economists well before the twentieth century, one might ask whether, the classical economists did not have models for optimizing resources in the economy or whether those models did not apply to the changing needs of economic planners.

Koopmans distinguished between the classical models of general equilibrium and the optimization models of central planners. He observed, “It is true that Walras also optimized (1954, Lesson 36) on the choice of processes, but from an infinite collection defined by a differentiable production function.” On the other hand, in the mathematical models of von Neumann and Kantorovich, the “same specified vector of outputs of all required commodities can therefore in general be obtained as the outcome of many different combinations of processes…. It is due to this element of choice between alternative ways of achieving the same end result that a genuine optimization problem arises.”

Given these developments, it is not surprising that optimization models peaked in use by economists working on centrally planned economies. However, now a new vocabulary and toolkit was required to optimize at the economy-wide level. From the perspective of economists working on the planning of the economy as a whole, it seems, the old tools of classical economists were not useful.

Kantorovich observed, “There appeared a necessity to shift from study and observation of economic processes and from isolated policy measures to systematic control of the economy, to the common and united planning being based on the common aims and

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covering a long time horizon. This planning must be so detailed as to include specific tasks to individual enterprises for specific periods and to that common consistency of the whole this giant set of decisions was guaranteed. It is clear that a planning problem of such scale did appear for the first time, so its solution could not be based on the existing experience and economic theory. The treatment of the economy as a single system, to be controlled toward a consistent goal, allowed the efficient systematization of enormous information material, its deep analysis for valid decision-making.”

The use of mathematics in economics started well before economists began using the optimization models for policy purposes. In the nineteenth century, Alfred Marshall recommended to use mathematics as a shorthand language rather than as an engine of inquiry, and after providing “real life examples” culminated his discussion with the fiery slogan “Burn the Mathematics.” This view certainly influenced other economists later, most notably Paul Samuelson, who also viewed the role of mathematics in economics as a language (as he wrote in *The Foundations of Economic Analysis*), with economics having its own principles of reasoning. The point is that mathematics can better express economic relationships and concepts briefly and universally.

However, in addition to a language, mathematics developed into a means to achieve specific ends. This may be related to the use of optimization models for policy purposes. Koopmans perhaps best described this view: “While ‘problems’ are to some extent posed by conditions and needs of society, ‘tools’ and states of training in the use of tools are part of the personal acquaintance of the investigator.”

While Kantorovich and Koopmans represented one branch of mathematics, using optimization models to fine-tune the running of the economy, another branch of mathematics was gaining momentum. The use of data and techniques from statistics and econometrics was now more common. But many believed that as necessity was the mother of invention, the changing needs of economics justified the changing of tools within economics. The works of Frisch and Tinbergen perhaps best represent this change.

Ragnar Frisch was interested in economics questions but trained in mathematics and received his doctorate in mathematical statistics in Oslo. In the 1930s Frisch did his

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71 Ibid p. 22
pioneering work in econometric modeling and measurement. Indeed, Frisch invented the word “econometrics” to refer to the use of mathematical and statistical techniques to test economic hypotheses. Frisch’s earlier work was focused on business cycles in economies, whereas in his later work he focused more on stabilization policy and long-term economic planning.

Jan Tinbergen, who held a PhD in physics, had become interested in economics while working on his dissertation, “Minimum Problems in Physics and Economics” (1929). Tinbergen was one of the first economists to create multi-equation models of economies. He produced, for example, a forty-eight-equation model of the American economy that explains investment activity and models American business cycles. He began to apply mathematical tools to economics, which at the time was a relatively verbal and nonmathematical discipline. Along with Frisch and others, Tinbergen carved out the field of econometrics.

While the tools used by economists no doubt differed based on the training and acquaintance of the individual investigator, it is also true that different types of tools were required for different ends. Economists conducting any type of planning exercise required a model of inputs and outputs, and data on prices and quantities, to optimize production. This type of investigation requires the use of economics and statistics to solve the problem at hand, irrespective of the personal preference or the skill of the investigator.

Paul Samuelson, in his Nobel Prize lecture, along the lines of his teacher Joseph Schumpeter, observed that economists had essentially evolved and adapted ideas from other sciences to enable them to perform the tasks of optimization, whatever the scale.

This leads to the idea that the normative implications of economic science changed the toolkit used by economists and therefore the practice of economics. Not only may economics have an influence on policy, but policy implications may drive economics—not simply the questions asked by economists, but the tools used by economics. P. C. Mahalanobis (discussed in detail later in this section) astutely observed the connection between the changing ideas within economics—the goals of government policy—and the use of statistics. He argues that “statistics is not only an applied science but also a public science.” Mahalanobis saw a strong connection between state planning and statistics and gave three examples: (1) during the New Deal when unified governmental policy became indispensable in the economic field, that effective action was taken for the central co-
ordination of the statistical activities of the federal government. (2) In the United Kingdom under laissez faire, statistics had been developing in a more or less haphazard manner without any focal centre within the governmental machinery. After the war, the importance of the Central Statistical Organization has continued to increase with the growth of social and economic planning in the United Kingdom. (3) In the USSR, centralization in the statistical field has gone much further and from the beginning a Central Statistical Bureau had been an integral part of the GOSPLAN. No plan can be put into operation until it is cleared by the statistical bureau.  

Mahalanobis's observation holds particularly true for the Indian experience, where the political movement, the call for economic development, and the pursuit of economic ideas were all deeply entwined, with the development of policy tools. In the Indian experience, the government policies affected the tools used in economics. But the scientists and mathematicians called to help with developmental planning also changed the government policy because they viewed the economy as a technical or engineering problem to be solved, and believed the problem could be solved.

Prasanta Chandra Mahalanobis was neither an economist nor very actively involved with the Indian freedom movement. He was a professor of physics and statistics, and founded the Indian Statistical Institute. Yet he is synonymous with planning and economic development in India.

Mahalanobis studied physics at Presidency College–Calcutta and, like many Indians of his background, went on to pursue a college degree in England. In 1914 he completed his Tripos in mathematics, and in 1915 his Tripos in physics at King's College–Cambridge. On his return to India he was in the physics department at Presidency College, for over thirty years. Though he competently taught physics, and also served on dissertations and research projects, his main passion at the time was statistics. He was mostly self-taught, and assisted various people, ranging from University of Calcutta, to the Meteorological Department, to anthropological society in statistical analysis. His interest in statistics can be

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75 These are the same exams that Weintraub (2002) attributes as one of the reasons for the increasing influence of mathematics and physics in economics.  
76 He served on many dissertations of physics students well into the 1940s. See exchange between C. V. Raman and Mahalanobis dated October 6, 1942, and November 3, 1942, regarding R. L. Ayyangar’s thesis.  
77 See correspondence between Gilbert Walker and Mahalanobis between 1922 and 1927, Mahalanobis papers NMML.
traced back to Cambridge, where, just before he left for India, his tutor, W. H. Macaulay, drew his attention to the journal *Biometrika*. In Calcutta Mahalanobis had a close personal association with Brajendra Nath Seal, a polymath and philosopher, who encouraged him to pursue statistics.\(^{78}\)

The most important influence on Mahalanobis was Karl Pearson, the founder and editor of *Biometrika*. The journal was an important inspiration for many projects chosen by Mahalanobis immediately after his return to India. In 1926 Mahalanobis got a chance to work in Pearson’s statistical laboratory in University College–London.\(^ {79}\) This experience was seminal in Mahalanobis’s forming ideas to set up a statistical institute in India and eventually a statistical journal—*Sankhya*.

A sample of his correspondence in the twenties and thirties reflects that he was in contact with academics, mostly outside India, mainly discussing his research interests,\(^ {80}\) connecting with academics abroad,\(^ {81}\) and attempting to set up a new research center for statistical studies.\(^ {82}\) He also did not discuss socialist ideas in depth, though he was in communication with scholars interested in socialism such as J. B. S. Haldane, Bertrand Russell, and E. J. Thompson.\(^ {83}\)

This differentiated the early career of Mahalanobis from some other prominent physicists and mathematicians who had an impact on development planning. Karl Pearson, though known for his pioneering work in statistics, was a socialist and very influenced by Marx. He avowed his “firm belief in the soundness of the fundamental doctrines of Socialism.”\(^ {84}\) Throughout the 1880s, he was an advocate of Marx’s theory of surplus value. Pearson wrote papers in the field of economics and communicated with other economists.\(^ {85}\)

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\(^{79}\) In a letter to Karl Pearson’s son, Mahalanobis wrote, “I came in touch with him (Karl Pearson) only for a few months, but I have always looked upon him as my master and myself as one of his humble disciples.” See letter dated June 14, 1936.

\(^{80}\) See Mahalanobis correspondence with, P. M. S. Blackett, P. O. Bodding, R. A. Fisher, G. M. Morant, Karl Pearson, L. C. Thoburn, Edward Dennnig, E. J. Thompson, Arthur Linder, Sten Konow, W. Krauss. See Mahalanobis Papers, NMML.

\(^{81}\) Mahalanobis connected with a number of mathematicians and statisticians in the 1920s, especially during his visit to England to Pearson’s laboratory and his travels to Europe with Rabindranath Tagore. As an example see correspondence with W. Krauss in the 1920s. In 1927 H. H. King proposed and Dr. M. Greenwood seconded Mahalanobis to the Royal Statistical Society. See letter from Thoburn to Mahalanobis dated May 19, 1926.

\(^{82}\) See correspondence with C. D. Deshmukh, Mahalanobis Papers, NMML.

\(^{83}\) Mahalanobis Papers, NMML.


\(^{85}\) In 1883 he proposed a radical economic paper for the British Association meetings, then withdrew when they offered him only a half hour to present what was intended as a withering critique of the English school. “I am very sorry,” wrote John Neville Keynes, “that we shall not have your paper on Socialism at the British Association. I should have been particularly interested in hearing you demolish us poor economists” (Porter 2010, p.78).
He was also a supporter of the Fabian Society, and his works *The Ethical Basis for Socialism* and *Socialism in Theory and Practice* were publicized and distributed by the Fabian Society. Jan Tinbergen, a physicist turned statistician and economist who later won the Nobel Prize, was deeply affected by the wars and Great Depression. These socio-economic circumstances inspired him to move to economics, and he created models specifically studying business cycles. In contrast, in the 1920s and 1930s Mahalanobis was interested developing statistical techniques applied to explore questions of caste, anthropology, agriculture, and meteorology in India. Even as late as 1954 Mahalanobis confessed to Pitambar Pant, “To be quite frank I am so ignorant about academic economics and my Indian colleagues are so cock-sure about their own infallibility that I had a little bit of a inferiority complex about economic matters.”

Mahalanobis immersed himself in two important projects in the 1930s. First was the setting up of the Indian Statistical Institute. The ISI started as a small statistical laboratory in Presidency College, where Mahalanobis taught physics. In 1931, he set up the Indian Statistical Institute and built a program for developing and using statistical techniques in India.

A second and related project was Mahalanobis’s work on sample surveys. Mahalanobis developed techniques in sampling to create surveys that would approximate the accuracy of census data. In a series of papers, lectures, and seminars, he defended the sample survey method as a substitute to the census-data method. Mahalanobis’s position was that sample surveys were as reliable as census data, though at a fraction of the cost. Further, given a tradeoff between accuracy and economy, sample surveys would be designed based on the specific end goals and the budgets of the surveyer. This made sample surveys particularly appropriate as a policy tool. Both in India and globally, this was a relatively new technique. Professor Harold Hotelling at Columbia University wrote in his report in 1930-40 that no techniques of random samples so far had been developed in the United States or

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86 Mahalanobis to Pant, dated June 1954, Pitambar Pant Papers, NMML.
87 See correspondence with C. D. Deshmukh, Mahalanobis Papers, NMML.
89 This was an important contribution to planning. In his travels to the USSR in 1954, he was advising members in Czechoslovakia and USSR on the benefits of sample surveys.
elsewhere that would compare to the accuracy or the cost of Mahalanobis’s technique.

Mahalanobis’s pioneering work in statistical techniques was taking place against the background of some major political changes. The socialist members within the Indian National Congress were gaining prominence. An important grassroots socialist leader in India was Jayaprakash Narayan, who founded the Congress Socialist Party in 1934 (the socialist caucus of the Indian National Congress party). These leaders’ attribution of equality to socialism was so powerful that within a few years the Congress Socialist Party was more than one-third of the strength of the All India Congress Committee. \(^91\) In December 1938 and January 1939 Congress president Subhash Chandra Bose created the Congress Planning Committee, tasked with the job of forming an “economic plan” for the country.\(^92\)

The National Planning Committee met frequently and its secretary, K. T. Shah, produced twenty volumes’ worth of papers. Nehru raised the importance of statistics to the planning endeavor in May 1940. One of the main tasks was collection of data to formulate rational, nationwide economic plans. The committee requested survey data from provincial governments\(^93\) and decided to collect new data.\(^94\) The task at hand was to get reliable data, at a low cost, and sample surveys.

It is in these circumstances that Nehru found an advisor and partner in Mahalanobis. Nehru and Mahalanobis had met many times before 1939 through Rabindrantha Tagore.\(^95\) They had a meeting in Delhi in late 1939,\(^96\) but it was only in 1940 that Nehru and Mahalanobis discussed their interest in statistics. After dinner at Anand Bhavan, Mahalanobis and Nehru talked till after two in the morning.\(^97\) The National Planning Committee asked Mahalanobis to write a statistical supplement to the report by the Planning Committee.

It seems the discussions even in 1940s were entirely about Mahalanobis’s expertise in statistics. He wrote to Nehru in 1940 suggesting that he examine all the reports of the

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\(^{91}\) Devasahayam, M. G. “Emergency and India’s second freedom.” (2012). p.9


\(^{93}\) Questionaire on National Planning for India: Explanatory Memorandum. 130 questions mainly for state and provincial governments in order to collect data to begin planning exercise. (national Planning Committee 1938 JN Papers) In a meeting on December 17, 1938 Nehru calls for circulation of the questionnaire.

\(^{94}\) In a meeting on December 17, 1938, Subhash Chandra Bose calls for research and data collection. Specifically, he discusses how existing institutes and survey departments can be used toward the national-planning exercise.


\(^{96}\) See telegram from Nehru to Mahalanobis September 29 1939. Mahalanobis Papers, NMML.

National Planning Committee from a “purely statistical point of view.”

Mahalanobis was still not very interested in or knowledgeable about the exercise of economic planning. In 1954 Mahalanobis write to Pitambar Pant and confessed, “I had only very vague ideas of planning when I first came to Delhi. From January 1950, when I first started handling national income data, I began to learn.”

Beyond a search for forming a plan with a common consistency, Mahalanobis was also quite interested in the efficiency within enterprises, which would determine the efficiency of the larger plan. An important influence in this area was Walter A. Shewhart, one of the pioneers of “quality control” technique and movement, which has become an integral part of industrial-standards work. He developed the method in the ’20s and gave a general exposition in his classical work *Economic Control of the Quality of Manufactured Products*, which is still the standard book on the subject. Many years later, in 1964, he published *The Approach of Operational Research to Planning in India*, which very much echoes this idea of creating efficiencies in processes and enterprises and scaling it up for economy-wide efficiencies.

After being entrusted with the monumental task of formulating the plan for India, Mahalanobis went abroad on a study visit to meet with the leading economists and statisticians in the world and reflected on what he had learned. “I know that economists from the west cannot solve our problems. But I also know that we can use some western economists to great advantage. On the purely technical side it would be of help if we can get someone with actual experience of inter-industry analysis or linear programming.”

Mahalanobis clearly had socialist leanings and was on board with the broad message of socialism. However, it seems from his scholarship that Mahalanobis’s allegiance was to the scientific technique or method and not the specific teachings of socialism. Through his letters it becomes clear that Mahalanobis was not very interested in the economic approach of the economists and statisticians he had been meeting with so much as their technical expertise—in particular, the mathematical and statistical methods to calculate plan allocations.

It seems that the partnership that began to emerge between Nehru and Mahalanobis...
in the 1940s (which would eventually lead to the team writing the second Five-Year Plan) had quite clear division of labor. Nehru determined the ideological vision and the main goals for economic policy, while Mahalanobis was to provide the apparatus (mainly mathematical and statistical services) to operationalize the vision. This is unsurprising given Nehru’s view on the exercise of planning, which he only considered a part of the socialist vision: “Planning and development have become sort of mathematical problem which may be worked out scientifically.”

Even after Mahalanobis’s stint at the Planning Commission, his main work did not change. He went back to the ISI and focused on developing new statistical techniques and adapting existing techniques for development work in India. It seems that even after the work at the Planning Commission, Mahalanobis did not move to publishing in economics or planning. He simply returned to his main passion, research in statistics and the development of the program at ISI.

It seemed to Mahalanobis as if the exercise of planning meant simply an economy-wide problem had to be solved, where policy makers would provide the goals and the mathematicians simply had to find the most efficient way of reaching that goal with a given set of resources. And therefore the person at the helm of the planning exercise need not know much about economics, simply about the tools required to allocate the resources centrally. It was only the policy makers who needed an understanding of economics to determine the policy goals or appropriately formulate the questions and problems faced by society.

VIII. Conclusion

The ideas and events that led up to the formation of the Planning Commission of India in 1950 were in the making for about seventy years. The commission can be traced back to both (1) the very general change in ideas away from laissez-faire across the world in the late nineteenth and early twentieth centuries, and (2) the very specific events and individuals in the Indian nationalist movement in India and Britain in the late nineteenth and early twentieth centuries.

104 See letters from Nirmal Kumari Mahalanobis to CD Deshmukh, Deshmukh Papers dated 7 August 1972 and 12 January 1973, NMML.
The general change in both ideology and the tools used by economists led to a very different type of policy ideas and economists’ attempt to solve economy-wide problems, treating the economy as a single optimization problem. This appeared in the adoption of planning in India, where the ideas came from Fabian socialism but the implementation of those ideas was left to mathematicians and statisticians who have little background in economics. This led to a peculiar division of labor among policy makers and planners in India.

Finally, it is clear from tracking these ideas that it is not the case that Indian planners in 1950 sought different economic ideas in the world and adopted the best set of ideas. Instead, a series of events, some planned and some accidental, led the Fabian model to become closely associated with the Indian national leaders and eventually adopted by Nehru and implemented by Mahalanobis.