

# ECONOMICS

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## ECONOMICS



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To

PROFESSOR SIMON N. PATTEN

AN INSPIRING TEACHER

A SYMPATHETIC PRECEPTOR

A WARM FRIEND

THIS BOOK IS DEDICATED

BY TWO OF HIS INTERESTED

STUDENTS

## PREFACE

IN presenting this text-book on Economics, the authors desire to state that in the following pages an effort has been made to present the various phases of economic thought in a clear and impartial manner. No effort has been made to present new theories.

The authors desire to acknowledge with most sincere gratitude the deep interest of Professor Simon N. Patten, who stood ever ready with helpful suggestions at every stage of the preparation of this book.

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UNIVERSITY OF PENNSYLVANIA,  
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# TEXT-BOOK OF ECONOMICS

## BOOK I

### CHAPTER I

#### PROSPERITY

##### (a) China and the United States

THOSE of us who are fortunate enough to live in the United States, to come into contact with its natural resources, its busy population, and its great aggregations of capital in the form of railroads, factories, mines, stores, and houses, can well afford to congratulate ourselves, for we are living in a land of plenty; a land of prosperity as contrasted with misery; a land in which there is a surplus of economic goods rather than a deficit.

Why are we rich as a nation? How is it that we have been able to develop forces which are operating to give the United States a surplus large enough to permit of the storing up of these masses of economic goods? How is it that we do not have famines which sweep off hundreds of thousands of our people? What is the cause of our prosperity, and what is its extent? These are some of the questions which it is the design of a course in Economics to answer.

Perhaps we can best begin answering these questions by drawing a contrast between a nation in which deficit is predominant and a nation in which surplus is predominant. For this purpose we will take China as the nation of deficit and the United States as the nation of surplus.

In China there are over four hundred million people, or about five times as many as there are in the United States. If the whole population of the United States and forty

millions more were to move into the State of Texas, they would be about as close together as are the people in the Yang-tse Valley of China. China, to use a current expression, teems with people.

The Chinese belong to the Mongolian race. They are smaller than the Caucasians physically, but the experience of the last twenty years in the development of Japan, whose people are admittedly not above the Chinese in capacity, has shown that intellectually they are at least the equals of the Western races.

In a generation the Japanese have acquired a knowledge of industry and science that the Western races labored two hundred years to develop. Not only have they successfully acquired this knowledge of the Western people, but in some instances they have developed and perfected it far beyond the Western standards. The most noteworthy case of this is found in the late Russo-Japanese War, during which the Japanese loss through disease was almost nothing, while among the Russian troops in that war, the American troops in the Spanish-American War, and the British troops in the Boer War, the death roll from disease was appalling. This is only one of the instances in which the Japanese have bettered their instruction.

In natural wealth, China is the equal, if not the superior, of any like area in the world. In the first place, it is magnificently watered. The Yang-tse-Kiang, 3000 miles long, is navigable to ocean-going vessels for 1100 miles. The Hoang-Ho, 2600 miles long, is connected with the Yang-tse-Kiang by the Imperial Canal, and these two rivers and the canal form one of the finest water systems in existence.

The climate of China is that of the Temperate Zone, with a range of temperature but slightly different from that of the United States. Of the minerals, gold, silver, copper, zinc, lead, tin, and mercury exist in considerable quantities, while iron of a high quality is very abundant. It is believed that the bituminous and anthracite coal fields of China

contain as much coal as those of all the other countries of the world combined. The Chinese also have rich deposits of niter, gypsum, and porcelain earth from which china is manufactured.

In Chinese manufacturing, machinery is almost wholly absent and the only power used is, in most cases, human energy. To this condition of affairs is due the fact that no heavy or cheap products are manufactured in China, but only those things which will sell at a high price, such as silks, fine fabrics of various kinds, and other luxuries.

In spite of the fact that the people are apparently so capable and so numerous and the natural resources so abundant, the industries of China are practically undeveloped. For example, iron, instead of being manufactured at home, is actually imported, although proper methods could produce iron in China as cheaply or more cheaply than at any other place in the world. Coal is mined in very limited quantities and only by the use of manual labor. The expense of drawing it to the top of the ground is so great that only the rich can afford to buy it. In addition, the transportation facilities except on the waterways are so poor that a bulky commodity, like coal, cannot be shipped for any distance before its price has become prohibitive to all except the most wealthy.

While agriculture is held in deep veneration, the Emperor himself each year plowing a furrow and planting some seed, and while the Chinese make the best intensive gardeners in the world, the customs and traditions which have been handed down for generations govern agriculture absolutely. The implements used are of the crudest. The American plow is rejected with scorn as the peasant turns back to the inefficient implement which has been employed from time immemorial. Rice is the staple crop and food. The only domestic animal which is scientifically raised is the pig.

Here, then, is a picture of a land full of capable people, abounding in natural resources, but without industry and therefore in constant danger of want. Crop failure in a

district remote from water transportation means starvation. There are no railroads, the roads are bad, and goods carried along them by means of porters are expensive, particularly when the object transported is a bulky one, like food. People starve within two hundred miles of an abundant supply of food, with no opportunity of transporting sufficient food in a short time to avert the catastrophe. In addition to these periodic famines, the nation is constantly incurring damages and losses in the Hoang-Ho region because the river insists on changing its bed, overflowing its banks, and drowning thousands of people at a time.

It may seem inconclusive to say that the deficit condition in China is due to a lack of organized industry. The question will naturally arise, if the resources are abundant and the people capable, why is there no industry? Here is another and a vital defect in the Chinese system. Men are governed by custom. "My father used this tool," is a conclusive argument in the ears of the son, and he uses the same tool without question. The people of the United States have always developed industry irrespective of tradition, knowing that the breaking of tradition is one of the chief means of industrial progress.

When these Chinese conditions are contrasted with the United States, the differences are remarkable. In the United States with a population of ninety millions, one fifth that of China, with natural resources of the richest, and yet no better than those of the Chinese Empire, there have been developed vast systems of inland transportation and great industrial centers which furnish remunerative employments to the population and at the same time give to it a surplus which successfully prevents any such famines as periodically occur among the Chinese.

In the contrast with the conditions in China, it is interesting to note the result of the San Francisco earthquake which rendered thousands homeless and placed the entire city population in jeopardy of starvation. Within twenty-

four hours, provision trains containing all kinds of food and shelter, from every section of the country, were on the way to the scene of the disaster, and relief was poured in at such a rate that not only was there no necessity of starvation but there was an abundance for all. While people in China starve two hundred miles from stores of food, in the United States, food, clothing, and various other provisions are sent three thousand miles over rivers and mountains in the course of six or seven days to the point where they are needed.

So much for the difference between the control over natural surroundings in the two countries. It is scarcely possible to draw a parallel between the conditions of life of people in the United States and those of China, because the conditions in the United States are so infinitely superior to those of the Celestial Empire. Suffice it to say, that those things which to the Chinese laborer are untold luxuries are part of the everyday fare of the average unskilled American wage worker.

In short, as was said at the beginning, China exists in a state of deficit and the United States is a state of surplus, though in both countries there are capable populations and great natural resources. What is the cause of this difference between two nations so situated? Briefly stated, it is this. The people of the United States have learned to control their environment; that is, instead of letting nature dominate, they have learned in a large measure to dominate nature. If the Mississippi overflows its banks, as it sometimes does, the people are not drowned by the tens of thousands, because long before the break occurs or the water reaches a town, the news of the coming flood has been sent over telegraph wires and the people are prepared to meet it or else have left for places of safety. As a rule, however, the Mississippi is not allowed to overflow its banks, although it is in exactly the same position as the Hoang-Ho, flowing in a channel which is above the level of the surrounding country. Hundreds of miles of levees have been built,

which, in all but exceptional seasons, successfully confine the river within its banks.

The Chinese depend upon one crop, — rice. If the rice crop fails, the Chinese starve. The people of the United States do not depend on one crop, but on many. A great part of their food is derived from wheat, but through the development of the milling industry, the beef industry, the canning and preserving industry, and a score of others it has been possible successfully to live through a time of shortage in one crop without being in immediate danger from starvation for lack of food. In the United States, control over the natural environment is so great that people are not starved to death or drowned by thousands because of an unusual freak of nature.

This control of the environment has been perfected and exercised through scientific agricultural, mechanical means of producing and transforming food products; mechanical means of providing shelter and clothing; scientific transportation; and successful development of material resources. None of these things are found in China, and in consequence, failing in the control of their environment, the Chinese have failed to develop a surplus to meet the occasional crop failures and other disastrous events.

The United States has developed what is known as a social surplus. All of the products of industry are not consumed at once, — part of them are stored up to assist in future production.

When the savage of Australasia found a whale which had drifted ashore in a storm he at once summoned his friends and neighbors and went to work on the whale. Sometimes it took them a week, and sometimes longer, and sometimes they died from overeating, but they ate until all of the whale was gone and then eked out an existence on berries and such food as they could find until the gods should send them another whale. Americans have a different process of securing food. When a large amount of food or the money



equivalent of a large amount of food is secured by a man, he does not go and eat or drink it up at once. There are exceptions to this rule, but in the majority of cases he puts by a portion of this wealth for a "rainy day."

In consequence of this process great masses of surplus wealth have been stored up in the form of railroads, factories, machine shops, houses, and public buildings, and these things accruing year after year serve to increase the productive efficiency of the people and to render them more capable of supplying themselves with goods that they desire.

Not only does this surplus stored up and added to year after year guarantee the nation against starvation and absolute want, but in addition it supplies it with the things which go with economic surplus. In other words, there is more than is absolutely necessary to keep body and soul together.

The Chinese live upon rice, but in the United States all of the people are able to secure an abundance of nourishing food. They have meat, which is a luxury in China, they have sugar in large quantities, and are coming more and more to have fruit and vegetables in summer and winter. They are able to supply themselves not only with enough food to keep the wolf from the door, but with a number of varieties of food. In short, through the development of mechanical inventions, the consumption of food in the United States has not only been increased, but it has been varied as well. All of these things have been brought about through the development of a large surplus in the community, which may be used for satisfying the many wants of the people and for providing for the satisfaction of the new wants which are constantly arising.

Since this surplus is of such vital importance in the development and continued well-being of the community, it is the purpose of Economics to point out, first, that it depends for its stability and increase on efficiency in the production of economic goods.