
International Trade

This is a tale of two islands: Labor Land and Capital Land. The islands were separated by a sea, and before the invention of ships, neither knew of the other's existence. In fact, each thought it was the only land on earth.

Labor Land never accumulated much machinery, and most Labor Landers acquired little education. Yes, most learned how to make some simple tools, grow a few crops, build simple houses, and read, write, and do arithmetic. But that was all. Naturally, their productivity, wage, and standard of living were low. However, a few Labor Landers owned machines and were highly educated and trained; naturally, their productivity, wage, and standard of living were high.

Things were very different in Capital Land. Capital Land had lots of machinery. Capital Landers invented productive machines and discovered how to make many products. Most were highly educated and trained. Naturally, their productivity, wage, and standard of living were high. However, some Capital Landers failed to own capital and obtain much education and training. A few were simply lazy, but others, despite their best efforts, were unable to learn advanced skills. Naturally, their productivity, wage, and standard of living were low.

One day there was great excitement at a huge factory located on the Capital Land seashore. A huge object, constructed in the factory, was being towed into the water. A crowd of people gathered to watch.

"It's going to sink, it's going to sink!" shouted a little boy. But it didn't sink. To the disbelief of children and adults alike, it floated. A cheer arose from the workers in the factory, then another from the crowd. The factory manager climbed up a ladder on the outside of the object, then stepped over a railing, stood on a deck inside the object, and addressed the crowd.

"We've done it. I am proud to announce that all of you are witnessing a historic moment: the launching of the first ship. For thousands of years we have stared at the sea that surrounds our island. Now at last we will be able to discover if we are truly alone on earth."

One week later a brave crew set sail at dawn. As a crowd watched, the ship sailed slowly into the distance. As night fell the ship could no longer be seen. The next morning it was gone.

"I can't see it anymore," said a little girl. "Did it sink?"

"We don't know," answered her mother. "They have enough food to sail for a month. They've been given orders to turn back in two weeks. Let us pray for them."

Exactly one month later a cheering crowd greeted the returning ship. The sailors hurried down the ladders, bursting with excitement.

"We discovered another populated island!" they shouted. "The people were friendly as can be. We're going to trade, we're going to trade!"

"What does 'trade' mean?" asked a little girl.

"It means," a sailor replied, "that we'll exchange some products we've made for some products they've made."

Comparative Advantage

"Why should we trade?" asked Autarkas. "Do they make anything that we can't make?" The sailors were suddenly quiet. Finally one sailor admitted, "I didn't see any product we can't make. You see, most Labor Landers have little machinery, education, and training. Most of our workers, equipped with advanced machines, education, and training, can out-produce them in every product. I'll give you two examples. First, consider a product we are most proud of: hitech [pronounced 'high teck']."

"Can Labor Landers even make a hitech?" asked Autarkas.

"This may surprise you," replied the sailor. "They actually man-

age to produce a small quantity of hitechs. But it's pitiful. One of our workers can produce 10 times as many hitechs in the same time as one of their workers can."

"What's your second example?" asked Autarkas.

"It's the product lotech [pronounced 'low teck']," replied the sailor. "Lotech doesn't require a lot of machinery, education, and training to produce, so the Labor Landers do a lot better making lotechs than they do making hitechs."

"But," persisted Autarkas, "can one of their workers beat one of our workers at making a lotech?"

"Well," conceded the sailor, "not really. One of our workers can produce 5 times as many lotechs in the same time as one of theirs can."

"So," said Autarkas with a satisfied smile, "we have an *absolute* advantage in every product. Our advantage is 10 times for hitechs and 5 times for lotechs. So again, I repeat, why trade? We're better off making every product ourselves."

Just then there was a disturbance in the crowd as a young, well-dressed gentleman made his way to the front until he stood facing Autarkas and the sailor.

"Autarkas, what you say sounds so sensible," the young gentleman said. "At first glance it surely seems pointless to trade with Labor Land when we have an absolute advantage in every product. But, alas, what seems sensible at first glance does not always turn out to be true on deeper analysis. That analysis shows that Capital Land and Labor Land can both gain from specializing in production and then trading freely."

"Who are you?" asked Autarkas.

"I'm Ricardo," the young gentleman replied.

"I've heard of you," said Autarkas. "You made a fortune as a stock-broker as a very young man, and now you serve in our legislature. You are certainly a successful, practical man. So how can you think trading with Labor Land makes sense for us?"

"You were kind enough to note my practical successes. But you may not be aware that two years ago I published a treatise on political economy, the result of many hours of analysis and work. In one chapter of my treatise I explained why free trade would make both lands better off."

Table 4.1

Output Per Worker Per Day

	Hitech	Lotech
Capital land	10	20
Labor land	1	4

"But this is quite remarkable," said Autarkas. "How could you even write about trade with another land in your treatise? We just discovered the existence of Labor Land, and your treatise was published two years ago!"

"I have two answers," replied Ricardo. "First, the idea that specializing and trading is mutually beneficial applies to a single land, two lands, or many lands. Second, I admit that in my treatise chapter I did assume that there were two lands. But you see, I can assume what I want. I'm an economist."

"If you are really an economist, you are quite right: You can assume anything. But why will we gain from free trade with Labor Land?" repeated Autarkas.

"Sailor," asked Ricardo, "how many lotechs does one Labor Lander produce in a day?"

"He produces 4," replied the sailor, "while one of us produces 20 in a day. As I said before, we're 5 times as productive as they are in lotechs."

"And how many hitechs does one Labor Lander produce in a day?" asked Ricardo.

"Just 1," answered the sailor, "while one of us produces 10 in a day. As I said before, we're 10 times as productive as they are in hitechs."

"Let me display the numbers in a table," exclaimed Ricardo. And he did (Table 4.1).

"We're better at making both goods, so let's produce both hitechs and lotechs ourselves," said Autarkas.

"That would be a mistake," said Ricardo. "When one of our workers spends a day making lotechs instead of hitechs, he produces 20 lotechs instead of 10 hitechs. So our sacrifice of 10 hitechs gets us 20 lotechs to consume. Do you agree that it would be better if our worker

spent the day making 10 hitechs and then traded the 10 hitechs for 30 lotechs from Labor Land?"

"Obviously," replied Autarkas. "Of course we'd rather have 30 lotechs at the end of the day than 20 lotechs. But will Labor Land agree to the trade?"

"They should," replied Ricardo. "When one of their workers spends ten days making hitechs instead of lotechs, he produces 10 hitechs instead of 40 lotechs. So he must sacrifice 40 lotechs to consume 10 hitechs. Wouldn't he be better off producing and trading only 30 lotechs to get 10 hitechs?"

"Indeed he would," answered Autarkas.

"Note this," said Ricardo. "Within Capital Land, the choice is 1 hitech or 2 lotechs, while within Labor Land, the choice is 1 hitech or 4 lotechs. It follows that if Capital Land can trade 1 hitech for more than 2 lotechs, it would gain; and if Labor Land can obtain 1 hitech for less than 4 lotechs, it would gain. So trade at any ratio between 1 to 2 and 1 to 4—for example, 1 to 3—would cause both lands to gain. With trade, Capital Land gets 3 lotechs for every hitech it sacrifices; without trade, it gets only 2. With trade, Labor Land gets 1 hitech for every 3 lotechs it sacrifices; without trade, it must sacrifice 4. That's why the trade of 10 hitechs from Capital Land for 30 lotechs from Labor Land (1 hitech for 3 lotechs) benefits both lands."

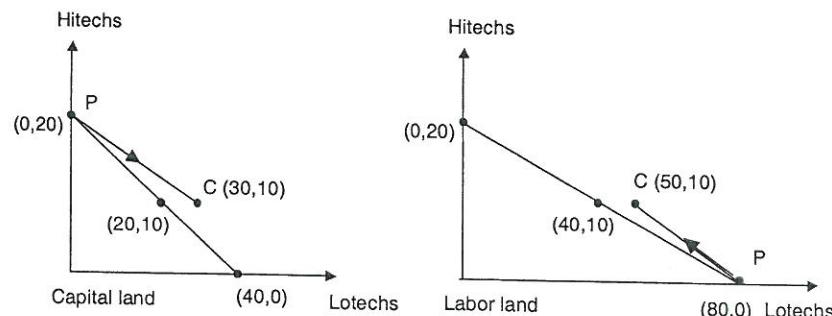
"Can you draw me a diagram to show me how both countries would be better off?" asked Autarkas.

"Certainly," said Ricardo. And he drew the Capital Land diagram in Figure 4.1. "I happen to know that there are 2,000 workers in Capital Land, so from Table 4.1, if all workers made lotechs they could produce 40,000 lotechs per day, and if all workers made hitechs they could produce 20,000 hitechs per day. Of course, if half the workers made lotechs, and half, hitechs, they could produce 20,000 lotechs and 10,000 hitechs per day. In fact, it would be possible for them to produce any combination of lotechs and hitechs that lies on the line connecting point (40,0) and point (0,20). To save space, I've written 40 for 40,000, and 20 for 20,000."

"Why don't you call that line a *production possibilities line*," suggested Autarkas.

"That's a splendid suggestion," replied Ricardo. "But possible

Figure 4.1 Specialization and Trade



production points for a country don't always lie on a straight line, so I will call it a *production possibilities curve*, which in this case is a line."

"May I try to draw the Labor Land diagram?" asked Autarkas.

"By all means," said Ricardo. "It's always better for a student to try to draw a diagram himself—that really tests whether the student knows what's happening. But I must give you one fact before you can draw it. I happen to know that there are 20,000 workers in Labor Land."

Autarkas thought for a moment, and then drew the Labor Land diagram in Figure 4.1. Using Table 4.1, Autarkas figured out that they could produce point (80,0), or point (0,20), or any point along the line joining these two points.

"Excellent," said Ricardo. "Without trade, people in each country want some of both goods. It just so happens that without trade each country produces and consumes at the half-way point on its production possibilities line: Capital Land produces and consumes (20,10), and Labor Land produces and consumes (40,10); this doesn't have to be true, but it just happens to be the case in these two countries."

"How nice for our diagrams," said Autarkas.

"By the way," continued Ricardo, "don't forget that there are ten times as many workers and people in Labor Land (20,000 vs. 2,000), so consumption per person is much lower in Labor Land even though Labor Land produces more lotechs (40 vs. 20) and the same number of hitechs (10 vs. 10)."

"I'm glad you reminded me," said Autarkas.

"Now, Autarkas," said Ricardo, "let's see if you can show what happens if Capital Land specializes in producing hitechs, Labor Land specializes in producing lotechs, and they trade 10,000 hitechs for 30,000 lotechs."

Autarkas thought for a moment, and then said, "Capital Land would produce at point (0,20). It would then export 10,000 hitechs and import 30,000 lotechs so it would consume at point (30,10)."

"Exactly right," exclaimed Ricardo.

"Labor Land," continued Autarkas, "would produce at point (80,0). It would then export 30,000 lotechs and import 10,000 hitechs so it would consume at point (50,10)."

"So," exclaimed Ricardo, "with trade each country goes to its respective corner like two boxers before a match, and produces at its point P."

"I see," said Autarkas. "Capital Land produces no lotechs and 20,000 hitechs, while Labor Land produces 80,000 lotechs and no hitechs."

"Then," continued Ricardo, "each country trades, advancing from its corner P toward the center of the ring to its point C which indicates the amount it consumes of each good after trade."

"I notice," said Autarkas, "that the slopes of the two trade lines, PC, are the same for both countries: 1 hitech for 3 lotechs. Do the slopes of the two trade lines have to be the same?"

"Of course," smiled Ricardo. "The two countries are trading with each other, so if Capital Land exports 1 hitech and imports 3 lotechs, then Labor Land is obviously importing 1 hitech and exporting 3 lotechs."

"Now," asked Ricardo, "are both countries better off with trade than without it?"

"Why, yes, they are," exclaimed Autarkas. "With trade, Capital Land consumes (30,10), which is clearly better than the (20,10) it consumed without trade. And with trade, Labor Land consumes (50,10), which is clearly better than the (40,10) it consumed without trade. That's simply remarkable," said an astonished Autarkas.

"It is indeed," said Ricardo. "I can't tell you how excited I was when I discovered it. If we in Capital Land are 10 times as productive as Labor Land in hitechs but only 5 times as productive as Labor Land in lotechs, then of course we have an absolute advantage in

both goods. On average, we're 7.5 times as productive. But I propose to say that we have a *comparative* advantage in hitechs because our productivity multiple (10) is above average (7.5) in hitechs, and Labor Land has a *comparative* advantage in lotechs because our productivity multiple (5) is below average (7.5) in lotechs. We can both benefit if we each specialize in producing the good in which we have a comparative advantage, and then trading it."

"But the way you've defined comparative advantage," said Autarkas, "each land must have a comparative advantage in one of the two goods."

"Correct," replied Ricardo.

"So you are claiming that mutually beneficial trade is always possible, even when one land has an absolute advantage in all goods," said Autarkas.

"Exactly," replied Ricardo.

Free Trade

"But," said Autarkas, "you have not shown that free trade will actually benefit both lands. You've only shown that a mutually beneficial trade could be negotiated by planners, not that it would come about automatically in a free market."

"You are quite right," replied Ricardo. "So let me now demonstrate that in a free market, Capital Land will specialize in producing hitechs and export them and Labor Land will specialize in producing lotechs and export them, and these actions under a free market will result in both lands being better off."

"You've got quite a task," said Autarkas. "Labor Land uses money called labs, while we use money called caps. Their prices are in labs while ours are in caps. Before we can trade, we have to know what the exchange rate is between labs and caps. They want to sell me goods priced in labs and they want to be paid in labs. I need to know how many labs I can get at a bank for each cap—that is, I need to know the exchange rate—before I can figure out whether I need less caps to buy a lotech made in Labor Land than I would need to buy a lotech made in Capital Land. I need to know which source is cheaper. You're going to have to construct a very complicated numerical example, and while I might understand it, the crowd will never follow it."

"Not at all," replied Ricardo cheerfully. "I can do it without a numerical example. Suppose that at the initial prices and exchange rate, consumers in both lands would want to buy all their goods from Capital Land. In other words, when each consumer figures out which source is cheaper, it turns out that both goods made in Capital Land are cheaper."

"Sounds great," said Exportas, who had been listening to the whole discussion. "We'll be able to export hitechs and lotechs and make lots of money."

"You're a fool," interjected Importas, who was standing right next to him. "We'll be sending lots of goods to Labor Land for their people to consume, while all we'll get are pieces of paper called money."

"Actually," said Ricardo, "there's no point in you two getting into one of your famous arguments, because the situation won't last. If everyone tries to buy all goods from our producers, our prices and wages will rise, and if no one tries to buy goods from their producers, their prices and wages will fall."

"What will happen next?" asked the sailor.

"That's easy," replied Ricardo. "At some point, our rising prices and their falling prices will make one of our two goods more expensive. At that point, consumers will decide to buy that good from Labor Land, while still buying the other good from us because it's still cheaper. So the Labor Landers will specialize in making the first good, and we will specialize in making the second good."

"Which of our two goods will become more expensive?" asked the sailor.

"See if you can guess," said Ricardo. "Remember, we're 10 times as productive making hitechs and only 5 times as productive making lotechs."

"Then it must be our lotechs that will become more expensive than their lotechs, even while our hitechs are still cheaper than their hitechs," said the sailor.

"Exactly," Ricardo smiled.

"So," said the sailor, "we'll specialize in producing hitechs, consuming some and exporting the rest, while they'll specialize in producing lotechs, consuming some and exporting the rest."

"Now notice something," said Ricardo. "We could have predicted the free trade outcome by checking comparative advantage. We're

10 times as productive in hitechs but only 5 times as productive in lotechs, so we have a comparative advantage in hitechs and they have a comparative advantage in lotechs. Sure enough, if we open up free trade, prices will adjust so that we each specialize in producing and exporting the good in which we have a comparative advantage. And that makes both lands better off."

"But wait," said Autarkas. "The trade must be at a ratio between 1 to 2 and 1 to 4—for example, 1 hitech for 3 lotechs (10 hitechs for 30 lotechs)—to make both better off. You haven't shown that."

"You are difficult to satisfy, Autarkas. I like that. You'd make a good economist. Alas, that would indeed take a numerical example. But the example would show that when prices adjust under free trade, the ratio would in fact end up somewhere between 1 to 2 and 1 to 4, so both lands benefit."

"I have another objection," said Autarkas. "You assume prices will rise in Capital Land and fall in Labor Land until one good from each land becomes cheaper. But what if prices are slow to adjust? What then?"

"That's easy," replied Ricardo. "Suppose prices are absolutely fixed. Initially, everyone tries to buy our goods and no one tries to buy goods made in Labor Land. So at the banks, Labor Landers try to exchange labs for caps so they can buy our goods—they supply labs and demand caps—but no Capital Lander tries to exchange caps for labs. So at the banks, there is demand for caps but no supply of caps. Suppose the exchange rate was initially 1 lab for 1 cap. With caps in short supply but high demand, the banks will change the exchange rate. They may now require 2 labs for 1 cap. The cap *appreciates* and the lab *depreciates* in value—now 2 labs, not 1, are needed to get 1 cap."

"But now," said the sailor, "our goods are more expensive to Labor Landers. Even though the price in caps is fixed, the price in labs has doubled."

"Very good," said Ricardo.

"And Labor Land goods are cheaper to us," continued the sailor, "because even though the price in labs is fixed, the price in caps has halved."

"Exactly," said Ricardo. "So even if prices are fixed, a flexible exchange rate will make our goods more expensive to Labor Landers,

and their goods cheaper to us. Eventually, one of the two goods will be more expensive when we make it and cheaper when they make it. So everyone will try to buy that good from Labor Land, not from us. Of course, that good will be a lotech. Now, at the banks, we will be supplying caps and demanding labs so we can buy their lotechs, and Labor Landers will still be supplying labs and demanding caps to buy our hitechs. At just the right exchange rate, the demand for caps will equal the supply of caps (and the demand for labs will equal the supply of labs) and the banks will have no reason to change the exchange rate."

"So," said the sailor, "once again they will specialize in lotechs and we will specialize in hitechs."

"That's right," said Ricardo. "So it doesn't matter whether prices rise and fall, or the exchange rate changes, or there is a combination of both—the result will be the same. Free trade will result in each land specializing in the good in which it has comparative advantage."

Fear of Trade

The sailors did not need to hear Ricardo to favor free trade. They were all for it because they would clearly profit from it. But people in Labor Land and Capital Land were another matter. Fear swept over Labor Land as soon as the ship from Capital Land left to return home.

"I've heard they're more productive in everything," said a frightened Labor Lander. "It is said they are 10 times as productive in making hitechs, and 5 times as productive in making lotechs. If we try to trade with them, they'll overpower us! We'll never be able to compete in anything, to sell anything. Free trade with Capital Land will be a disaster!"

Fortunately, when the second ship from Capital Land arrived in Labor Land, Ricardo was aboard. Immediately, he went directly to a TV studio where Labor Land's most popular talk show was in progress. As soon as Ricardo was introduced, the talk show host demanded that he explain why Labor Land wouldn't get slaughtered by trading with a productive powerhouse like Capital Land. The talk show audience was in a frenzy, and for a moment Ricardo was frightened.

"Don't worry," whispered the host. "The people we let in are always that way. It's good for our ratings. People love to watch hysterical people on TV."

"How interesting," whispered Ricardo to the host. "It's the same in Capital Land. The only difference is that the quality of our TV picture is much better than yours, so hysterical facial expressions can be seen more clearly by viewers. I suppose that's something you can look forward to under free trade."

Ignoring the shouting and frenzy, Ricardo calmly repeated the explanation he had given in Capital Land. "Suppose for a moment you can't sell anything because your prices are too high, and you want to buy everything from Capital Land because its prices are lower."

"Yeah!" screamed the audience. "Our factories will all shut down and we'll all be out of work!"

"Not at all," said Ricardo. "With everyone trying to buy goods made in Capital Land, its prices will rise. With no one trying to buy goods made in Labor Land, your prices will fall. This will all happen very quickly. Soon, one of your goods will be cheaper, and people in Capital Land will want to buy it. That good will be lotech, and you will specialize in its production, sell it to Capital Landers, and use your earnings to import hitechs. You'll do very well and be better off than you were before trade began. Now would you like me to explain how I know you will succeed at lotechs rather than hitechs?"

"No," said the talk show host, "that won't be necessary." No one in the audience was screaming anymore. In fact, half were yawning, and half had fallen asleep.

"But I've got a smashing numerical example," Ricardo said with enthusiasm.

The talk show host saw a frantic cut sign from the control room. He led Ricardo by the hand off the stage. Later, he learned that his show's ratings had plunged drastically during the five minutes that Ricardo had been speaking. True, many TVs remained tuned to his station, but only because the viewers had fallen asleep.

Nevertheless, Ricardo offered to give more lectures and numerical examples, but the editorial in Labor Land's leading newspaper spoke for the nation: "We'll trade, we'll trade, but please go home, Mr. Ricardo!"

And so Ricardo returned home. Upon arriving in Capital Land,

he found that a remarkable change had occurred. Initially, trade with Labor Land had been considered pointless. As Autarkas had said, "We're more productive in everything. Why trade?" Ricardo had persuaded Autarkas that Capital Land would benefit from trade with Labor Land, despite its absolute advantage in all goods. But now, to Ricardo's surprise, he found that fear of trade had spread among Capital Landers. He immediately went on a TV talk show to find out why.

"Our audience is very angry with you, Mr. Ricardo," whispered the host. "That's why we're having you on. Audience anger is great for our ratings."

"What seems to be the trouble?" Ricardo asked the audience.

"I'll tell you what the trouble is!" shouted one person. "You want us to trade with Labor Land. Well, we just found out that wages in Labor Land are much lower than the wages we are paid here in Capital Land. We'll never compete with them. Their costs are so low, they'll charge a lower price for everything. They'll make and sell everything, and we'll make and sell nothing."

"Yeah!" screamed the audience. "Our factories will all shut down and we'll all be out of work!"

"How ironic," Ricardo told the audience. "That's exactly what the Labor Landers said. But they predicted disaster from free trade because we're a productive powerhouse—more productive in making everything than they are. But now you are also predicting disaster from free trade because their wages and costs are much lower. Fortunately, your fear is as baseless as theirs."

"Why?" shouted the audience.

"Let me explain," said Ricardo calmly. "Suppose for a moment you can't sell anything because your wages, costs, and prices are higher, and you want to buy everything from Labor Land because its wages, costs, and prices are lower. With everyone trying to buy goods made in Labor Land, its wages, costs, and prices will rise. With no one trying to buy goods made in Capital Land, our wages, costs, and prices will fall. This will all happen very quickly. Soon, one of our goods will be cheaper, and people in Labor Land will want to buy it. That good will be hitech, and you will specialize in its production, sell it to Labor Landers, and use your earnings to import lotechs. You'll do very well and be better off than you were before trade

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"Somehow I feel this has all happened before," said Ricardo wistfully.

Valid Concerns

"Ricardo, we'd like to have a word with you."

"Who are you four gentlemen?"

"We're Heckscher, Ohlin, Stolper, and Samuelson."

"What can I do for you?" asked Ricardo.

"Please don't misunderstand us," said Samuelson. "We have the greatest admiration for your theory of comparative advantage and your demonstration that free trade benefits both lands even when one land is more productive in making every good. As economists, we find your reasoning and numerical examples to be as exciting as life on this earth ever gets."

"Thank you, kindred spirits," said Ricardo.

"However," said Samuelson, "there is one shortcoming from free trade that we economists should confess."

"Please explain," said Ricardo.

"It's important to recognize," said Heckscher and Ohlin in unison, "that each good in each land is made with two factors of production: labor and capital. We've been able to show that each country will successfully export the good that uses a lot of its abundant factor. So Capital Land will export hitechs because hitechs are produced with a lot of capital, and Labor Land will export lotechcs because lotechcs are produced with a lot of labor."

"Your analysis with two factors of production, labor and capital, is

simply fascinating," cried Ricardo. "I used only labor in my analysis."

"We take it a step further," said Stolper and Samuelson in unison. "We can show that free trade helps a land's abundant factor and harms a land's scarce factor. In other words, free trade will raise the real wage of low-skilled workers in Labor Land where such labor is abundant, but will reduce the real wage of low-skilled workers in Capital Land where such labor is scarce. The reason is simple. Free trade causes Labor Land to expand production of lotechcs, which uses a lot of low-skilled labor, so wages get bid up. But free trade causes Capital Land to shrink production of lotechcs, so wages of low-skilled workers get forced down."

"But you do find that each land gains from free trade, don't you?" asked Ricardo.

"Yes, we do," replied Samuelson. "The gain to everyone else in Capital Land is much greater than the loss to low-skilled workers through the fall in their wages. To be precise, we show that if everyone who gains from trade compensates those who lose, then everyone in the land would be better off."

"Excellent," said Ricardo.

"However," said Samuelson, "we economists should surely advocate not only free trade, but compensation to those who lose from it."

"How should the compensation be implemented?" asked Ricardo.

"In two ways," replied Samuelson. "First, taxpayers should help finance the retraining of workers who lose jobs when free trade causes some industries to contract. And second, in Capital Land, we must explain that because free trade may well harm low-skilled workers, it is important to have a progressive tax system, an earned income credit, and social insurance to compensate these workers so that free trade will in fact benefit everyone."

Two citizens who had been listening now spoke up. "I have another concern," said Labortas. "Labor Land has much weaker labor standards than we do. For example, they permit child labor, poor working conditions, and very long work days. As a result, they out compete us in goods involving such labor. Even worse, our industries lobby to weaken our labor standards, complaining that there should be a level playing field."

"Why, your concern is similar to mine," said Environmentas. "Labor Land has much weaker pollution standards than we do. As a re-

sult, they out compete us in goods involving pollution. Even worse, our industries lobby to weaken our pollution standards, complaining that there should be a level playing field."

"You've both raised valid concerns," said Econo, one of the brightest young economists in Capital Land. "We economists must show some common sense. In our standard models, people get satisfaction only from consumption of goods. But our people actually care about whether production involves the exploitation of labor or the degradation of the environment. Once we recognize that these are legitimate preferences of our people, sensible economists should have an open mind about proposals to restrict trade when exploitation of labor or environmental degradation is severe."

"But we must be careful," warned Ricardo. "When a land becomes open to free trade, the industries in which it has a comparative disadvantage are forced to contract by foreign competition. Most people in both lands benefit from trade, but naturally, workers and managers in the contracting industries are unhappy. They are likely to accuse the other land of extreme exploitation or pollution, whether valid or not, to get restrictions on trade and protect their position."

"Very true, Ricardo," said Econo. "We must use our common sense and strike a balance. Labor Land is less productive than we are, and therefore has a lower wage and a lower standard of living. Labor Landers may feel they can't afford to match our labor and environmental standards at this stage of their development. We should, therefore, not insist on such a matching in order to trade with Labor Land. At the same time, we should insist that Labor Land avoid extreme labor exploitation and environmental degradation before we are willing to trade." Econo's advice was followed. In the trade agreement signed by the governments of Labor Land and Capital Land, Labor Land agreed to improve its working conditions, reduce its work day, eliminate child labor, and reduce its pollution. Capital Land did not insist that wages, labor conditions, or environmental quality match its own. Capital Land enacted programs to help its low-skilled workers cope with the effects of trade.

And so, our tale of two islands comes to a happy end. Having overcome their baseless fears, and having responded to valid concerns, the two islands moved boldly forward, trading freely, and benefiting mutually.