By now, you’re wondering why we’re spending so much time talking about savings investment. That is because it’s at the very heart of the connection between the real economy of goods and services, and the financial economy of money and interest-bearing assets.

Let’s go back and review the relationship one more time. We have almost got a model together that is going to help us predict the interest rate, and show us the connection between the interest rate and the real economy. Here is income and all of its uses. Here is aggregate expenditure adding up to income. Income equals income. Do that algebra again and you come up with this remarkable key equation – equilibrium expressed as the equality of investment and savings. We have already talked about this side of the equation; that is, investment spending because when businesses are building factories they’re borrowing money. The amount of money they borrow depends to a large degree on interest rates, the price of money.

Now we’re going to look at the other side of the equation, the supply of loanable funds. Loanable funds are supplied when people save money and put it into the financial system, households, the government, and foreigners. It turns out, that what influences people’s decisions to save money is also the real interest rate.

We have demand, which depends on the interest rate, supply, which depends on the interest rate, and then we’re going to put them together and find the equilibrium interest rate, that is, the rate of interest that gives us an equality between the supply of loanable funds, that is, savings and the demand for loanable funds, that is, investment. We’re going to find the interest rate that makes this macroeconomic equilibrium happened.

Let’s go back over to our supply and demand diagram. This time you'll notice I have changed the labels. The horizontal axis represents the supply of loanable funds that is the money that people put into the financial system. They put it there because they're not spending it today, so we call it “savings.” On the vertical axis we have the price of loanable funds, or the return that you get on your savings. The money they have to be paid in order to put your money into the financial system. As we said before, what people really care about is the real rate of interest. That is, the return that they get on their savings measured in terms of purchasing power. I am saving a pair of shoes today. What am I going to have next year, a pair of shoes and socks, more pairs of shoes, or maybe only a cup of coffee? That is certainly going to influence my willingness to put money into the financial system. As you’ll recall, the real rate of interest is equal to nominal rate of interest, with the bank pays, minus the rate of inflation. Therefore, if we hold the rate of inflation constant, the real rate of interest moves exactly one for one with the nominal rate of interest. So, I can draw people's savings decision as a function of what the bank is paying them on their savings accounts.

Let’s think then about the behavior of savers. Whenever the nominal interest rate goes up, if inflation is constant, the real rate of return goes up also, which means that you can afford to buy more stuff than before if you save money today. The higher the nominal interest rate, the larger the return on your savings. If inflation is constant, that means you can buy more and more stuff as the nominal interest rate rises. That means that you are going to be willing to forego consumption. You're going to be willing to forego spending today in return for larger amount of purchasing power tomorrow, and next year, and so on into the future. So, what we have then, is a supply curve that slopes upward. The supply curve for loanable funds looks like this. That is, as the nominal interest rate rises households are willing to forego consumption and put more of their purchasing power into the bank today in the form of savings.

Now, households are only one component here of the savings. There's also the government, which is saving, if it is taking more in, in taxes then it is spending in government spending. There is also foreigners. Foreigners are saving if we are running a trade deficit. That is, foreigners are lending has money so that we can afford to buy more from them, importing more, than we sell to them – exports. So, if our net exports are negative we are running a trade deficit and foreigners are lending us the money that makes that possible. So, the savings is a combination of foreigners saving in our economy, the government saving, and household saving. In general, whenever the interest rate rises, the total quantity of loanable funds made available, supply that is saved, is going to increase.

The next question is, "What is going to cause this curve to shift?" What would cause, for instance, at any given interest rate, the total quantity of loanable funds put in the financial system, the total amount of savings to increase? What would cost that to happen? Let’s think about all the players whose behavior could lead to this shift.
First of all, what would influence households to save more at any given interest rate? Suppose, people became fearful about the future then they decided that they needed to save more because they were afraid they may lose their jobs. Another thing that might happen is, the government providing incentives to households to save more like whenever you have the opportunity like when you did in the '80s to have an individual retirement account or a 401(k) or 403 (b) these government incentives encourage people to do more savings.

Now, we can talk about a third thing, which would be changed in the behavior of the government itself. Suppose the government runs a smaller deficit or a bigger surplus. That is, suppose the government reduces government spending and increases taxes, now the government is saving more money. That is, it is taking more in revenue and it is spending last so its savings is increasing. That is going to shift out the savings curve. At any given interest rate, total savings in the economy increases, anytime the government runs a bigger surplus or a smaller deficit.

A fourth thing that can happen here is a change in foreign behavior. Suppose the exchange rate changes and the cost of foreigners buying stuff from our economy changes. For instance, if the U.S. dollar becomes weaker and the U.S. dollar will buy less foreign goods than before, the people from the United States are less interested in importing. When we're not interested in importing, then our trade deficit is going to shrink.

Meanwhile foreigners, seeing that goods and services in the U.S. are a bargain, will start buying more stuff from us. So our exports increase our imports decrease, net exports are increasing, the trade deficit is shrinking, and foreigners are saving less money in our economy. On the other hand, if it happens in reverse, if the dollar appreciates, then we are going to find ourselves exporting less in importing more. The trade deficit increases, foreigners are lending us more money, and the savings curve shift outward at any given interest rate. So, a bigger trade deficit shifts out the savings curve.

So, here is a quick summary of what can cause there to be more savings in our economy at any given real and nominal interest rate. First of all, the change and household behavior, perhaps due to incentives from the government or a fear of what can happen in the future and the desire to protect yourself with savings. Next, a change in government behavior. If the government runs a bigger surplus, it is saving more; if it runs a bigger deficit, then it is going to be reducing overall savings in the economy. Finally, a change in foreign behavior. If the trade deficit gets bigger, then foreigners are lending us more money. If our trade deficit gets smaller, then foreigners are lending us less money.

So, now we have the behavior of borrowers and the behavior of lenders. We've got the supply curve for loanable funds and the demand curve for loanable funds. We've got savings and we've got investment. Now we're ready to put them together and find out how the change in the interest rate gives us equilibrium.