**W1 V4 WTP**

0:10  
So in this video, we're gonna define willingness to pay.

0:13  
It's gonna feel like it's a new concept, but it's not really.

0:15  
It's literally just taking whatever we've done before and just reshuffling it and putting it in new packaging.

0:21  
OK, we're gonna explain why we use it.

0:23  
If it's just reshuffling, then why bother?

0:26  
Because it's actually gonna be useful and then we'll talk about factors that could change the way it must be.

0:33  
OK.

0:33  
So reminder, everything that we've done so far is opportunity cost, right?

0:37  
And it was complicated, right?

0:39  
Because there could be things that are not observable time and we've got to figure out how to value this time implicit cost.

0:46  
And it is a pain to calculate and especially to use.

0:49  
And now if you think about you want to buy multiple units, it gets really difficult to use.

0:53  
So our task is to say, can we take that same basic intuition because we like it, because it's important, it's how we view things, but just move stuff around in a way to make it easier to use, right.

1:05  
So literally, we're just moving things around and our goal is to make it easier to use Fundamental concept is still opportunity cost.

1:13  
Fundamental starting point is still benefit versus opportunity cost, just moving stuff around to make our lives and calculations a little bit easier.

1:20  
OK.

1:21  
So here's what we're going to do.

1:22  
We're going to start off with saying people are making their decisions or they're going to buy as long as the benefit is at least as high as the opportunity cost, right.

1:31  
Sometimes I write it as buy if benefit is at least as great as opportunity cost.

1:36  
Sometimes I'll say your decision depends on benefit versus opportunity cost doesn't matter.

1:41  
It just depends on the question that we're looking at.

1:44  
But what is important is that we have benefits on one side, opportunity cost on the other side.

1:48  
That's our starting equation.

1:50  
And then we're going to move stuff from one side of the equation to the other.

1:53  
OK.

1:54  
So remember, opportunity cost has two components, explicit and implicit.

1:59  
This is the problematic one, right?

2:00  
Because that's really hard to observe to calculate.

2:03  
This is really easy because that's typically price.

2:06  
So all we're going to do is trying to find a way to make this less bothersome.

2:11  
The way we're going to do that is literally just move it from one side of the equation to the other.

2:17  
OK, so opportunity cost was explicit plus implicit.

2:25  
OK, now I'm like, oh, this is a pain.

2:27  
So I'm going to take this.

2:28  
I'm going to move it on to the other side of the equation, right.

2:33  
Because I'm moving it on to the other side.

2:34  
It's got a negative sign.

2:35  
It's not changing the equation.

2:36  
Equation is the same.

2:37  
It's just moving it from one side to the other.

2:39  
But now it's a much easier to work with the equation.

2:42  
OK, This is this all of the stuff that's difficult to calculate.

2:45  
Tell me your benefit in dollars or I gotta think about it.

2:48  
Tell me the value of your time and dollars.

2:49  
Oh, I gotta think about it, right.

2:50  
So all of the thinking is on this side of the equation, this really straightforward.

2:54  
How much you actually paying for it?

2:55  
What's the price?

2:56  
All right, this is now something that I can get from the market, something that's easy to observe.

3:01  
And all of the thinking terms are on the other side.

3:04  
And we give that thinking term, a fancy jargony name called Willingness to Pay, right.

3:10  
So benefit minus implicit cost is basically your willingness to pay.

3:13  
If you don't want to think about it that way, think about it's all the stuff from your fundamental equation that's not your price that you have to pay because the explicit cost is typically price.

3:26  
Sounds awake.

3:27  
So let's kind of do it with an example that we've done before.

3:30  
Same Pride and Prejudice, suitable boy price here.

3:33  
I'm not thinking about it in the example that I'm going to do here.

3:36  
There's no time.

3:38  
In the next slide, we'll kind of talk about how to work it in a more general setting.

3:40  
But here I'm going to assume no, only cash resource, OK, pay attention to that.

3:50  
That should be an instinctive reaction that comes up anytime you look at calculation for opportunity cost or willingness to pay.

3:55  
Now what I want to do is to think about a more general equation.

3:58  
And then when I put in the numbers, you're going to see ways, common ways that you can get tripped up.

4:02  
OK.

4:02  
So the general thinking for Pride and Prejudice is what I'm going to buy Pride and Prejudice or I'm going to think about Pride and Prejudice based on the value that I get from Pride and Prejudice versus the opportunity cost of Pride and Prejudice.

4:15  
OK, now what's the opportunity cost of Pride and Prejudice?

4:18  
It's the resources that I'm using.

4:20  
In this case, it's just the price of Pride and Prejudice, right?

4:25  
That's the assumption that I'm making the next best alternative, which in this case is a suitable boy.

4:31  
I've already done the next best alternative thinking for you.

4:34  
Then I'm going to have to subtract off the resource used by Suitable Boy, which in this case is just the price.

4:41  
Now you can kind of see there's a lot of stuff in here that's hard to measure on the opportunity side.

4:46  
So I'm going to take all of this that's hard to measure.

4:50  
Or basically I want to leave the price of Pride and Prejudice on this side and anything that's not the price, move it over to the other side.

4:59  
So now what I'm going to get is an equation that says Pride and Prejudice minus the value of Suitable Boy because now on the other side, but Minus now becomes plus dollar value of the price of Suitable Boy, OK, Versus the dollar price of Pride and Prejudice.

5:19  
What is this term?

5:20  
It's nothing new, it's just moving stuff around.

5:22  
But I'm to make my life easier.

5:23  
I'm going to call it the willingness to pay for Pride and Prejudice.

5:27  
OK, At least start off with this equation because once you start putting numbers in, you're going to start seeing it gets confusing.

5:32  
So for example, if I had to put my numbers in here to calculate the willingness to pay for Pride and Prejudice, I would get what?

5:44  
It's the value of Pride and Prejudice.

5:47  
I'm just going to repeat this up here and then we will put numbers, OK, value of Pride and Prejudice 40.

6:00  
So I'm going to put 40 here, minus the value of Suitable Boy, which is 35, plus the price of a Suitable Boy, which in this case is $20.

6:14  
OK, So if I do this, I'm going to get my willingness to pay for a Suitable Boy.

6:19  
I want to keep that in here, OK.

6:22  
I want to have an opportunity cost number to kind of compare and contrast in that.

6:26  
If I was doing the same thing that we did earlier and I was calculating the opportunity cost, I would say I use resources of $20.

6:33  
I use the chance to read The Suitable Boy, which gives me $40 in value, and I'm going to spend $20 on doing that.

6:44  
If you do that at that stage, you want to cancel out those 20 and 20 and you're going to get an opportunity cost that doesn't have the price.

6:53  
And when you have an opportunity cost that doesn't have the price, you're now going to be scrambling because it's going to go back to the previous slide for a second.

7:03  
When I think about willingness to pay, I know I need to have price on this side, but if I start out by calculating opportunity cost first, there's no price.

7:12  
Why?

7:12  
Because it's cancelled out, right?

7:14  
And you're going to start panicking.

7:16  
So my advice to you for willingness to pay is don't start off with opportunity cost.

7:20  
Think about what willingness to pay is.

7:22  
Start off with an equation like this.

7:24  
Price will always be there because it's a resource that we're using, right?

7:28  
Move it over to the other side, everything else that's not price.

7:31  
Then at the last step, plug in your numbers because then you're going to get the value that you want for willingness to pay.

7:39  
Alternatively, and this is another trick that we use on the on the problem set, is to add and subtract the price.

7:48  
I'm just going to say this here and I'm going to point you towards the problem set to see that.

7:53  
But again, for here, because this is really what I want you to do, Take willingness to pay.

7:57  
Start off with your fundamental equation.

7:59  
Keep track of all of your resources.

8:00  
Don't plug in numbers yet because that can get confusing.

8:03  
Move stuff around.

8:04  
Then at the last stage, plug in your numbers, OK?

8:08  
And you can get your willingness to pay in here.

8:12  
OK, so it's going to be $60.00, right, -5, I'm willing to pay $25 for Pride and Prejudice.

8:28  
Then I'll say, OK, do I actually want to buy Pride and Prejudice?

8:32  
Well, if it's going to give me a benefit of 40, and I'm willing to pay 25 for it, is that the right comparison?

8:41  
No.

8:41  
What is the right comparison?

8:42  
Right comparison is the following.

8:44  
OK, I am willing to pay versus what I have to pay for Pride and Prejudice.

8:53  
So if I'm willing to pay $25, I only have to pay $20, then yes, by Pride And the willingness to pay was less and it can be less depending on the values, right.

9:09  
So for example, if one of the values here and here changes, right, this was lower, I may not have wanted to buy it, right.

9:15  
So think about it, calculate it and follow it this way.

9:21  
So let's recap this, frame this in different ways.

9:25  
I frame the previous example as willingness to pay versus opportunity versus price or benefit versus opportunity cost.

9:32  
Here I'm going to show you some ways, alternative ways to write it down, which is to say buy.

9:35  
If the value is at least as high as the opportunity cost doesn't matter.

9:39  
It's just making sure you're separating out the two sides of the equation.

9:43  
OK, then plug in all of the elements of your opportunity cost.

9:47  
Keep everything that's not the dollar price of Pride and Prejudice on one side, right?

9:54  
And move the other things off to the other side.

9:56  
And what you're going to get is what we call willingness to pay right value, opportunity cost, keep this on this side, everything else that's not this move over to the other side, paying attention.

10:11  
Plus becomes minus, minus becomes plus.

10:14  
And you now have an equation for the willingness to pay for pride and precious.

10:18  
It depends on all of these things in here, OK.

10:22  
Once we have that equation and you've not plugged in the numbers, then you can do thought experiments.

10:27  
Let's say what happens when stuff changes, right.

10:29  
So for example, you have, you know, same books and things, but for some reason everyone on TikTok was reading A Suitable Boy and you're like, oh, you know what, I should also read it because I'll have something to talk to my friends about.

10:39  
In that case, for you, the value of a suitable Boy has gone up, right?

10:46  
So how does this change your willingness to pay for Pride and Prejudice?

10:52  
Right, Because that was your Suitable Boy was your next best alternative to Pride and Prejudice.

10:57  
If we have the equation, we can think about it intuitively.

11:00  
You know exactly what you're going to do.

11:01  
But we're in a model.

11:02  
When we have an equation in here, we can make predictions.

11:05  
So if the value of the Suitable Boy goes up, OK, and it's got a negative sign in here, it's going to make my willingness to pay for Pride and Prejudice lower, right, less willing to pay.

11:16  
I want to go to the next best alternative because now that's more valuable, OK.

11:21  
Similarly, if the price of a Suitable Boy goes up, next best alternative?

11:28  
Not so interesting anymore, right?

11:30  
My willingness to pay for Pride and Prejudice, close up Pride and Prejudice starts to look pretty good now because the alternative is not so great.

11:38  
And in that case, I'm willing to pay more for Pride and Prejudice for the same price.

11:43  
Price of Pride and Prejudice has not changed.

11:45  
My willingness to pay has changed.

11:49  
OK.

11:50  
So please always start, especially at the beginning when you're learning these concepts, benefit versus opportunity, cost, move stuff around to get an equation for willingness to pay versus price.

12:01  
Then plug it in to calculate your willingness to pay and then you can think about changes.

12:06  
We really use this because it is intuitive.

12:09  
It's something that you kind of do automatically.

12:11  
You're looking at the T-shirt, you're like, oh, it cost me $20, how much am I willing to pay for it?

12:15  
You make a price.

12:16  
So we are capturing in a certain sense decisions making that you're thinking that you're doing right and it is especially useful when we want to think about quantities, 1 unit, 2 units, 3 units.

12:26  
Being able to just compare something, willingness to paper price makes your calculations and your life a lot easier.

12:32  
So that is why we do that extra step to move stuff around.