Week 10 Transcript

Oh.
Yeah.
To.
Please.
Okay.
Good afternoon everyone.
Can I get started?
Um, so the final, uh, two weeks of our lectures
of our course, it's going to be focussed on the
open economy.
Uh, and we're going to start out by talking about
trade, because trade is very much important part of macro,
even though it's often the, you know, the elements that
build up to trade.
The study of trade is very similar to micro.
International trade is clearly, um, an important subject in macroeconomics.
And then we're going to talk about, uh, financial flows,
capital, financial accounts, current accounts and so forth.
So the international macro elements, um, of the global economies.
So when we talk about the closed economy, very few
countries in the world are truly a closed economy.
Everybody trades.
Right.
It's just only to to.
It's only different in terms of degree.
If we think about lots of European economies, including this
country, it's a very open economy.
Uh, you can even say it's a small open economy.
In fact, the US, which is a really large country,
you think about it as an open economy because of
so many financial flows.
And then trade is actually a much more closed economy
than here or many European countries.
So this is why we do have to care about
global, uh, macroeconomics.
And that consists of the two engines of globalisation which
is trade and capital flows.
So international capital flows and trade.
There's trade globalisation which we're going to focus on this
lecture and probably in the next lecture as well depending
on time.
And there's also financial globalisation.
Financial globalisation is the movement of money across countries, the
movement of the purchase of assets.
Uh, and we can apply everything we've learned from a
closed economy and extend it to the open economy.
But it involves, uh, um, some, some modifications of our
knowledge.
For instance, you know, we never talked about exchange rates,
but clearly exchange rates is a very, very critical, you
know, very important price, if you will, in the, in
the, in the economy.
And it pertains only to the open economy.
We haven't talked about current account, about international countries borrowing
from each other or saving, um, uh, borrowing or, or
a lending to each other.
So many of these concepts are built on what we
have learned in the closed economy setting.
But first of all, on trade.
Now trade is a very politically, heatedly debated, uh, topic.
Right.
I'm sure that all of you have some thoughts about,

uh, about trade.
And so today we're going to first look at what
are the basic economic mechanisms supporting international trade.
And potentially we have a little bit of time, uh,
or in next lecture to discuss about the consequences of
trade.
So start with the first observation.
This is just taking one example.
But there are so many.
In the US, there are no more televisions made.
Okay, television was a hugely popular thing in the US.
Of course, everybody died to have a television set in
their homes, and in the 1950s there were over 90
American manufacturers in television.
But the last one that was actually made in the
US was in 1995.
Now, is it true that the US gave up its
television industry because it can't make them anymore, because it
has lost the advantage of making them, because other people
made it better?
Or what is it?
Right.
That's kind of be going to be the crux of
our, of our, of the, of the, of the lectures
that we're going to look at, look at.
Now trade is heavily politicised.
You don't have to look further than in this country.
Brexit.
Right.
Who are the winners?
Who are the losers from opening up trade that massively
with the European Union and the rest of the world?
You don't have to look further.
Far from the most debated or most contested elections around
the world.
President Trump ready to slap on, I don't know, 60%
tariffs on European goods in certain industries.
Uh, Trump's, um.
Uh, President Trump's, uh, kind of, uh, rallying around the
American, you know, steel workers and manufacturing to make America
great again through bringing back manufacturing.
Right.
So obviously, we all we have all have something to
say about these issues.
But do we know the basis of the argument?
Are they right?
Has President Trump taken EC one B5 uh, before?
Does he understand these basic elements behind these, um, uh,
international trade and current account and all of that?
Right.
Just taking him an example is an example, but we
really need to be much more knowledgeable about these things
to engage in these debates.
And that's what I hope you will get out from
this, uh, lecture.
So this is another example.
So we talked about television sets.
You know, think about the question if countries made everything
on their own, what kind of world would that be?
It used to be like that.
Everybody made their own, uh um, you know, machineries and
tools and all that.
Uh, well, of course, trade happened a long, long time
ago, since history.
But there were many countries that made a lot of
themselves, things themselves.

Right.
What what world would we be in if there was
no global trade and every country had to make their
own aeroplanes and chips and, you know, computers, that obviously
does not look like a very, um, a reasonable or
sensible picture.
So this is a picture of a Boeing 787 Dreamliner.
Apparently there are something like 6 million parts that go
into an aeroplane.
Right.
And this is just an illustration of how many of
these components are coming from many, many different countries.
Uh, I don't know if it comes from 6 million
parts.
How many countries that come from in general in total.
But many of these important parts come from not only
from the UK.
Um, uh, there's Japan, there's France, there's Italy, Australia, Korea,
Japan, uh, and Sweden, Canada and many, many others.
Even in electric bicycle.
Okay, components that go into making an electric bicycle has
14 countries or something like that involved.
Okay.
Now, obviously this shows that there's a geographical splintering.
Of production all around the world.
Goods, sorry, parts shipped back and forth and then finally
assembled somewhere.
Or maybe even parts of it assembled and then sold
finally as a Boeing aeroplane exported from that country.
Right.
The geographical splintering of of trade or production is one
of the things that has really kind of exploded in
the last, I don't know, 50 years or so.
Okay.
Now, trade obviously dates back to much, much, much longer
before a thousand years, so crude and so forth.
But this kind of intermediate goods trade is a more
recent phenomenon.
We're going to touch upon this.
But this is not the focus of of our of
our lecture or the or the textbook, because this goes
one step further from the basic trade economics that we're
going to learn, the basic element behind of the trade
that we're going to have to master is the notion
of comparative vantage.
And that comes from, uh, the 19th century, uh, uh,
economist, British economist David Ricardo, who came up with the
idea of comparative advantage.
We're going to talk about that.
And then we're going to talk about things like the
current account and what goes into the national balance of
payments and the ideas surrounding finance, how finance and trade
links together.
Okay.
So, um, as I, as I mentioned, imagine everybody, everybody
imagine what life would be like in all Turkey and
all Turkey.
That means no trade, right?
Closed economy.
So no matter how small you are, this is probably
like, you know, um, uh, I'd even say North America
is obviously not a closed economy because it has to
import lots of stuff from other countries.
Um, but there's really no country that that is an
all turkey.
And, um, the idea is that trade is both within

and between countries.
So it could be cross countries, but also within countries.
If you have a very, very big country, you will
have trade across the different regions as well.
Uh, is the idea that there could be gains from
specialisation?
Okay.
And by specialising in a single job or activity, everybody
can produce more, sell more, make them cheaper and enjoy
a higher quality of life.
That's the idea behind gains of trade.
And there are different dimensions of gains from trade.
Okay.
So let's just like take a, take a look at,
um, an important concept here, which is the notion of
what is an absolute advantage and what's the notion of
a comparative advantage.
Absolute advantage is if the, if one producer can produce
more units per hour compared to another producer, okay.
You just have an absolute comparative, uh, absolute advantage.
But a producer has a comparative advantage if the producer
has a lower opportunity cost.
Okay.
So by producing this thing, I give up something else,
right?
Just like every everybody, um, everybody will have to give
up something to produce one thing who gives up less
of the other thing is going to have a comparative
advantage.
We're going to talk about this in detail as an
example.
And so the idea is by exploiting comparative advantage again
not absolute but comparative advantage, international trade is going to
increase overall economic efficiency.
And as a result everybody benefits.
And this everybody's not just consumers but firms nations and
in all kinds of ways, not just through lower more
variety of consumer goods, but also, um, things like patent
payments, distribution, retail production of component parts and so forth.
We're going to talk about this more in detail, but
the idea is that the economic reasoning is that trade
is great because it brings about more economic efficiency.
Okay.
So.
Let's take an example.
Uh, first, uh, I guess in American textbooks, they really
like sports.
Um, so we're going to take some sports examples.
I have many, many more, but we'll just stick with
one.
Um, and, um, there are two kinds of sports basketball
and baseball.
And there are two guys, James and Billy, who, uh,
scores.
James scores 2000, uh, points per season for basketball and
40 hits for baseball.
And Billy has 60 versus 20.
Okay.
So.
Who has an absolute advantage in basketball looking across horizontally.
Well, it's got to be James and who has an
absolute advantage in baseball.
And that is also James 40 is greater than 20
right.
So James is just better at everything.
Okay.

But does that mean that James should play both.
Right.
And so now we turn to the notion of comparative advantage.
So James forgoes 40 hits of baseball for 2000 points of basketball.
Okay.
So 40 divided by 2000 is 0.002 forgone hits for each point of base basketball.
And so that's the opportunity cost.
Right.
So if I, if James um, goes for um, basketball, then uh, he forgoes um, uh, 0.002 hits per, per point of basketball.
Now, Billy would forego 220 hits for 60 points of basketball if he gave up baseball and just went to basketball.
Basketball.
And that's 0.33 forgone hits for each point.
So whose opportunity cost?
Um, uh, opportunity cost for basketball is, uh, is higher, right.
And uh, so that would mean that, uh, James, because he has a lower opportunity cost, he only sacrifices 0.002 hits for each point of baseball basketball compared to him sacrificing Billy, sacrificing much more.
So the opportunity cost is lower for James.
So James has a comparative advantage in basketball.
Um, now let's consider, uh, giving a basketball for baseball.
Okay.
If James gives up basketball, he foregoes 2000 points, but gains 40 hits per baseball.
So that's 500 forgone points for each hit of baseball.
And Billy forgoes 60 divided by 20 or 3 points for each hit.
So who forgoes more, uh, for, um, um, forgoes more, uh, basketball points for each hit or James.
So this cost is higher for James than it is for Billy.
So Billy with a lower opportunity cost has a comparative advantage in baseball.
So then the idea is that, you know, obviously they can't do both, so they can only do one.
And so then James, even though he has an absolute advantage in both, would go to, um, play basketball and Billy, uh, would go hit baseball.
Okay.
So this is it's quite, it's quite um, it's quite subtle in the sense that, uh, you know, observations of David Ricardo UK was better than Portugal and everything in both producing cotton and, um, you know, something else, wine at that point.
Um, does that mean that UK should do both?
Right.
And the whole notion of comparative advantage is that actually, no, you should only specialise in the sector in which you have a comparative advantage and you can go show, go on to show why that is going to bring about more efficiency and the whole idea is that the one with the lower opportunity cost will specialise in that particular, uh, good.
Now let's take a real example of trade.
Okay.
This is obviously a very relevant thing.
Just think about the Apple iPhone.
Now Apple iPhone, just like the.

Planes and electric bicycle has parts that come from lots of places.
Okay.
Now, if we just look at a single worker productivity, let's take the US in China.
And China is often invoked in the idea in the in the example of an iPhone, because Chinese workers do a lot of things with iPhone.
What do they do?
They make they are assemblies, right?
They assemble the iPhones.
But before we get to that, let's just take a look at their average productivity.
Now let's suppose that to assemble an iPhone okay US worker is more productive.
So US worker would assemble 20,000 iPhones per year.
And a Chinese one Chinese worker would assemble 5000 iPhones per year.
This could be because the still the US workers on average more educated.
There's more capital, more equipment, maybe more automation to help.
So the US workers are more productive in assembly.
But also in research and development, which is, um, you know, very knowledge intensive research development on making innovation.
Okay.
So let's suppose that US workers, a US average worker or research worker, um, can come up with ten innovations per year and a Chinese worker can come up with only one innovation per year.
So it would be pretty obvious to say that the US worker has an absolute advantage in both assembly and research and development.
Again, assembly work is just basically putting the parts together and shipping out the final good, right?
Um, and and this is indeed true.
Actually, China ships out lots of iPhones, uh, as exports.
But most of the value added in making that iPhone is putting the stuff together.
Right.
But anyway, so in that sense, this is the absolute advantage account attributed to both to US workers in both assembly and research.
But who has the comparative advantage?
So, um, how many?
Um, so how many?
Uh, let's look at the opportunity cost.
Right.
If we gave up all innovation and we did 20,000 phones, then that would be 2000.
Is the opportunity cost, um, uh, for the US and the Chinese worker is 5000 divided by, uh, by one.
Right.
So the US opportunity cost in doing um, R&D is lower than, um, than the Chinese worker.
Uh, so then the US worker is going to specialise in R&D, and the Chinese worker is going to specialise in assembly because that is, uh, the Chinese workers comparative advantage, even though it's not the absolute advantage.
So let's say that the value added of assembling an iPhone each for each assembling one iPhone is $1.5.
Then the Chinese worker with that assembles 5000 phones will have an annual wage of $7,500.
Right?
Because they assemble 5000 phones per year times $1.5 per phone.
And for US worker, this worker would be getting $30,000

of.
Of income from assembly.
Um, now R&D, uh, is going to be, uh, paid
more.
So there's for every R&D innovation, uh, one is, uh,
compensated by $5.
The value added is 5000, then 5000 times ten.
Innovation per year is 50,000.
And, uh, a Chinese worker would have, uh, 5000.
So that's that that would be kind of the total
compensation.
Uh, that is the market price for, uh, the the
kind of, um, specialisation that we are looking at.
And so what we see is that, you know, by
specialising in R&D, the US worker is going to be
paid more.
And similarly by specialising in assembly.
Uh, the Chinese worker is also uh paid more.
Um, so in that sense.
Um, the value added of, uh, let's say a $999
iPhone.
Actually, in reality, only $8 something plus some less than
$9 actually go go to China.
Now, this relates back to the concept of value added,
uh, in our first lecture or our first two lectures,
uh, which is, you know, how much value did you
put in or contribute in that particular process?
So you see that the value added of China is
very low, even though we think about and we talk
about lots of things about, you know, Apple moving its
factories to China and Foxconn workers assembling away Apple iPhones.
But in fact, if you look at, you know, a
breakdown of these, uh, of these, you know, of Apple
profits to various, um, uh, various components, uh, the Chinese
labour is only compensated 1.8%.
Okay.
And, uh, there's also South Korea, Japan, Taiwan and Apple.
Most of the profits still go to Apple.
So out of that 999 iPhone, whatever profit that they
can make from one iPhone, the majority still goes to
Apple.
But, you know, the debate is often as if lots
of workers have shifted to the US.
Sorry, to China or into Mexico or Vietnam or all
these countries.
Uh, but the truth is that most of the value
added because Apple's design, Apple's research is high value added,
as we have seen from here, even though you gave
up a lot of assembly workers, right, that freed up
workers and resources to do research.
That's the idea of comparative advantage, right?
So it seems like it's a pretty good deal for
for the US, even though it has lost some of
these, um, low skilled manufacturing workers to countries like China.
Uh, the majority of value added is still accounting accounted
for by Apple going to Apple.
So um, so this example tells you why we see
lots of what's called outsourcing, okay.
Outsourcing to other countries.
I'm going to move a certain segment of my manufacturing
to other countries because first of all they have low
wages okay.
And therefore the comparative advantage in low skilled, uh, low
skilled labour, uh, rather than just doing everything ourselves, we
want to do that.
And the concept of outsourcing has meant that, um, a

lot of these different parts and components have moved to
various different countries.
Okay.
So that's Apple iPhone is a good example of the
concept of comparative advantage and trade.
Okay.
So, um, just to recap here, okay, so what we
are seeing in the world is that developing countries in
developed countries are specialising in different things.
So let's call it the global North and global South.
Okay.
Let's take the US as an example.
So US has been importing a lot of furnitures t
shirts okay.
Apparel.
Um uh toys okay.
These low skilled, um, uh, labour involved kind of goods,
low cost goods from countries like China, like increasingly from
Vietnam.
It was importing a lot from Mexico.
Um, countries like China import planes or components chips or
used to import lots of semiconductors, high end machinery and
material.
Um, another thing that developing countries export is agriculture.
So a country like Brazil would be exporting a lot
of agricultural products and importing a lot of the high
end manufacturer electronics and so forth.
So we do see this big global picture where, broadly
speaking, this global north advanced economies specialise in um, uh,
labour capital intensive, high end resource research, intensive goods and
developing south uh specialises in low skilled and um uh,
low cost goods.
So that's kind of the whole mapping of the trade.
But that doesn't account for lots of another big part
of the trade, which is where we're going.
We're going to also talk about but that's the idea
of comparative advantage.
Now, the whole debate about this is obviously there are
gains from trade, right?
As um, of course, as students in economics, we first
of all want to understand what are constitute the gains
from trade and also understand what are the costs of
trade.
So.
Firstly, consumers gain from lower prices.
How does that work?
Because of the specialisation.
Okay, things are cheaper, right?
Because there's overall more efficiency stuff that you're comparatively better
at doing.
You specialise and I do something else.
And so that overall reduces costs and makes our stuff
much cheaper.
Now if you think about Walmart, um, uh, Walmart, uh,
before the arrival of China, uh, had lots of obviously
lots of goods, but after they started importing from China,
uh, prices of toys and furniture and apparel and all
these things started to fall dramatically, or at least the
prices did not rise as fast as it did before.
It was actually cheaper.
That meant that.
That these American consumers could buy stuff at a cheaper
price, and they can also buy lots more variety, right?
Consumer not only cares about having low prices, they also
care about variety, the variety of goods, and by importing
from lots of different countries, you can have this kind

of red wine, this kind of cars, that kind of,
you know, um, a food or or electronics, you know,
we have lots of imports of, you know, foreign countries,
electronic goods and so forth.
So that increases both variety and reduces the cost.
So obviously consumers would gain.
And so even though politically we often talk about the
lost jobs in the steel factories or in the manufacturing,
that all these manufacturing jobs that are lost to Vietnam
and low cost countries, you're talking about hundreds of millions,
at least in America, of consumers that are gaining from
imported goods and lower prices.
Another source of gain comes from firms.
Now firms import lots of components and inputs, right?
Imagine that you have a firm, you're a firm, and
you can only import from a small array of choices.
Right.
That reduces productivity.
So by being able to import inputs from everywhere and
selecting wherever it's cheaper or better, higher quality, you can
have more profits.
Your productivity rises okay.
And you have more profits to do things like R&D
research and development.
Right.
So that that releases, you know, lots of resources
to do the stuff that are more higher value added
for you.
So firms also gain from trade.
Now.
Overall, there's just more efficiency from specialisation, um, because of
the notion of comparative advantage.
And, uh, everybody benefits.
In addition, as we mentioned, um, lots of uh, citizens
and firms will receive payments from patents.
Let's say US UK has lots of innovation.
So they sell these patents to companies around the world,
and they get royalty payments from them because of innovation.
Right.
That's obviously something that you can only do by selling
to foreigners.
Um, and lots of production of component parts that make
up a Boeing plane, for example.
So these are all the gains, uh, from trade.
But the problem is that is that trade produces losers,
right.
Um, who are the losers?
Well, it depends, right.
In this country, in the US, the lower end manufacturing
works has gone, has left this country.
Remember that this country was a manufacturing base right after
the Industrial revolution.
Right.
And, um, it would proud of itself based on manufacturing.
But a lot of that manufacturing simply went to other
countries that had us that was able to specialise.
So from the trade, low skilled workers, um, have lost
jobs.
Maybe they will never have the skills to do something
else.
Uh, they had to face the, the, the prospect of
unemployment and also the suffering from lost jobs.
And as lots of these, you know, furniture making, um,
a toy making, uh, jobs left, these workers suffered substantially.
But the question really is, you know, and this comes
back to less of an economic question.

So first of all, what would the economics say?
Economics would say that's fine.
Okay.
We just simply compensate these workers because overall the whole country, the whole economy has benefited.
So we only need to compensate the ones who have lost from trade by giving them some transfers or some other kind of financial compensation.
And still as a nation, we still gain from that trade because the overall benefit is greater than the cost.
That's the economic argument right now.
The problem with this economic argument, and which is, you know, the political aspect of it, is, first of all, that doesn't tend to happen, right, that governments are kind of get their act enough together enough, or have the political will and possibility to compensate those who lose out from trade.
Okay.
Um, now that that is probably one of the issues that we also faced with, you know, the decision to Brexit, because it's true that lots of people in various parts of this country, um, have not benefited as much from trade as many others.
Now, who are the ones that benefit?
Well, first of all, these big corporations are the huge winners.
Think about Apple.
Apple's cost dramatically went down and its profits went up because it can outsource a lot of these parts of the production process to places that have lower wages.
Now we're going to talk about this.
But there was a lot of controversy in the 1990s when Nike shoe company, um, outsourced a lot of these production of the shoes, sneakers to countries like Vietnam or low cost places right there.
The working conditions weren't really great.
Now, of course, trade, trade and trade agreements and politicians have made this, have assuaged the conditions and made sure that labour protection rights are are meet the international standards now.
But in the past, the fact that globalisation meant these corporations could make a lot more money, okay, because it simply outsourced was make sure that it made sure that these winners were the were the big corporations.
Think about the fact that when you pick up a phone, sometimes you go to a call centres.
You're not speaking to somebody from this country, right?
You're speaking to maybe some somebody in India or somebody, uh, very, very far away.
And companies like Google, Apple and all these, you know, big multinationals was able to, um, generate all these profits because of that.
Now we forget about the low skilled workers that have lost in these countries.
And of course, on the other side are winners and losers in developing countries too, right?
Developing countries who are the winners?
The winners are the low skilled, um, people who used to work in the same industry, but had much lower pay or had no jobs in the first place.
Right.
So now.
You know, in the in the recent 10 or 15 years, the whole world has been talking a lot about inequality, especially about inequality in rich countries like the US and UK and saying, oh, inequality has, uh, has, has

increased by so much and the world is a terrible
place and all that.
But in truth, globalisation has allowed income inequality across countries
to shrink or to actually to, to reduce.
We've seen that there's a lot of, there's, there's somewhat
of a convergence in income across countries from growth.
We didn't talk about the the importance of trade.
We talked only about capital accumulation.
But the truth is that by giving jobs to Mexican,
Vietnamese, Bangladeshi, Chinese, low skilled workers, they actually had a
higher income.
So they were the winners of the process.
And on the other side, there were also losers in
the process as well, because in these countries they could
import research intensive, knowledge intensive capital intensive stuff from the
US and UK.
And the people who are producing these stuff lost out
as well.
Right?
Countries like China suddenly could import Japanese electronics and Japanese
air conditioners.
Um, those people who were making them previously also lost
in the process.
So there are always going to be winners and losers
when we talk about comparative advantage, because the notion of
comparative advantage is to give up something where there's a
higher opportunity cost.
Right.
Um, but the whole debate is, well, economists say as
long as there's distribution, it will be fine.
Everybody benefits.
In the end.
The political problem is that distribution is not always clear
that it actually happens.
And, um, and also, you know, when President Trump talks
about the tens and millions of steel workers, actually, no,
sorry, I take it that it's 50,000 steel workers, um,
and imposing trade barriers because of the 50,000 steel workers.
What he has harmed is maybe potentially 100 million consumers
who actually gain from trade.
So it's a highly political, um, potentially even less economic
question when we talk about trade.
But it's a it's a deeply debated, uh, subject.
Um, so how do we measure trade?
Trade is measured by exports and imports, not normalised by
GDP.
Obviously bigger countries will have bigger absolute amounts of exports
in GDP.
So they need to be normalised.
And so if we look at some data or empirically
this is for the US between 1929.
Here is a big dip.
Um well here is the here here.
The fall here in trade is due to the Great
Depression.
And then of course, the war, um, uh, actually contributed
to a fall in trade.
Now, a few observations.
One is that there's been an explosion in trade.
Right.
Since when?
Well, it's really picked up since the 1980s.
Okay.
This is the hyper globalisation area.
It was on a positive slope.
But here the slope is like that right.

It's a very, very, very fast increase in rise and
trade in the US both in terms of exports and
imports.
Okay.
Um, obviously if you look at the US here, the
US has been importing more than its exports and this
gap increased, uh, somewhere around the early or the early
2000, I believe.
Yeah.
And this can you can talk about, you know, this
potentially being the arrival of China, uh, joined the WTO
in 2001.
But in general, there has been a steady rise in
trade.
Uh, also for the US.
This is for a bunch of other countries.
Um, uh, maybe it's not so obvious here, but, uh,
this is, um, this dashed line here is China.
We're going to see a picture of China, uh, very
shortly.
This is India has also been on the rise, um,
formerly pretty closed economy.
Germany has totally, uh, a, you know, rode that the
globalisation wave and actually Germany as a share of GDP
at least is a much more important trading nation.
Right, because, um, uh, imports to, uh, GDP ratio.
If you look at the exports, that's also very similar.
Um, is very high as a share of GDP.
Now imports plus exports.
Okay.
Uh, divided by GDP is often really taken as the
uh taken to be trade a measure of trade.
So it's not just imports and export but the two
combined.
So if you add exports and imports together and divide
by GDP countries and you're in Europe sometimes would have
like 110% of GDP, 120% of GDP, right?
The GDP trade overall is even higher than GDP for.
So you add the exports and imports together.
Remember when we calculate GDP it's exports minus imports as
net exports.
But if you add them together to capture total trade
it's actually extremely high for small open economies.
This country is a small open economy because relative to
the size of GDP trade is really really very important.
That's what we call a very open economy.
Okay.
If you look at China, um, uh, this is between
1960 and recently.
Um, uh, it's also had a phenomenal, uh, explosion of
trade, uh, especially after joining the WTO in 2001.
Um, and exports is something like 40% of GDP or,
sorry, 35% of GDP.
Uh, imports is a lot lower, well, somewhat lower.
So you can see this massive current account surplus.
We're going to talk about this or this trade surplus.
So you export more than you import.
So there's a massive surplus here.
The surplus has fallen over time.
But remember that in this period there was, you know,
some huge international controversy of China exporting more than it
imports.
Um, uh, which is again, based on a somewhat misconceived
notion about what trade is.
So trade barriers is when, uh, now trade barriers is
now very, very popular.

So just one more comment about why we've seen this
explosion in trade in the 1980s.
First of all, tariffs went down dramatically.
Okay.
Tariffs is if you slap on a 10% tariff on
your good, then obviously when you import it you pay
an additional 10% for it.
Right.
So that's the concept of tariff.
Tariff went from double digits.
Average tariff went from double digits.
Um in 1980 uh before in the 1980s to single
low low single digits after 1980.
I think the average tariff, uh, by 2017, in the
US was something like, I don't know, 2% or something.
So a lot lower.
So that's number one.
That's one of the causes of this explosion in trade.
The second really important, uh, cause for globalisation or trade
is technology, okay.
And the reduction in transport costs.
So now freight cost, whether it's by air or by
ship, okay.
Or transportation costs has dramatically reduced.
And technology also matters before.
How do you communicate with your suppliers?
This is the reason why you didn't have a geographical
splintering in the 1960s or 70, or production because you're
calling them, hey, what's going on?
Can you do this or that?
There was nothing to.
There was no communication, very little communication.
Right.
The possibility.
Just like now, we can have all these zoom calls.
And after Covid, all this remote work has taken place
is also the rival of technology.
Right.
The fact that you have fax machines and the computers
and all of that made it possible for trade to
be more splintered geographically.
That was another reason behind the fact that technology was
allowed you to better exploit your comparative advantage.
Okay.
Um, and so non-tariff barriers fell or tariffs fell and
non-tariff barriers.
So other than tariffs, lots of trade barriers also fell
over this period between lots of countries.
And that's why you had a lot more trade, uh,
what we call a hyper globalisation, uh, in this period.
But now we're returning to somewhat of a more protectionist
world.
Right.
Um, and this is evidenced by the fact that there's,
first of all, lots more talks about trade barriers like
tariffs being erected.
Again, if President Trump gets re-elected, there will be more,
greater tariffs.
Um, uh, on, you know, European goods, Chinese goods from
everywhere around the world.
Um, and what this mass.
So I told you about US tariffs having fallen substantially.
But what this masks is that tariffs are very different
across sectors.
So one of the big complaints from developing countries is
why do you guys set your agriculture tariffs to be

that high.
I think in the US something for sugar.
It's more than 100% tariff okay.
Agricultural products I think on average has a 60% tariff
rates.
If we talk about free trade why is it that
developing countries with a comparative advantage in food can't export
cheaply on a free basis to countries like advanced economies
like the US or UK?
So one of the big complaints is that actually trade
is not fair.
Yes, advanced economies have complained that trade is not fair
because developing countries copies steals their technology or, you know,
our jobs are lost in this country to low end
workers in Mexico, Vietnam and all that.
All these places.
But developing countries have another story.
This is not free trade, you guys.
Advanced economies get to choose where you want to put
a high barrier.
And when you want to put a low barrier so
that you impose very low trade barriers.
When we import your high end electronics and all these
high tech goods, but then when we want to sell
you to agricultural products, you impose a really high tariff,
right?
So.
Without going into the specifics, because this is just the
backdrop for you to understand.
Trade is a very complex political place, a very complex
political picture.
Sometimes we only hear one side of the story, but
there are multiple sides of the story, including from the
developing countries point of view.
Um, they also complain that it's actually highly unequal, because
when they want to sell some stuff like agricultural goods,
these are protected.
And this protection is obviously often in advanced economies due
to political, uh, has a political agenda behind it.
Right, to, you know, for lobbyists or to protect certain
groups of people, right, for elections or whatever it is
that could be possible.
Some developing countries, actually, they really need the tariffs to
collect revenue.
Okay.
Some countries, um, use these tariffs to protect their domestic
producers.
Right.
So you can see that in this very rosy picture
of globalisation and trade and all the benefits it brings
about, there's been a huge amount of, um, uh, discontent
from, from, from both sides because again, they're winners.
They're losers.
The concept of what's fair is a highly debated, uh,
subject.
Uh, another point of view from developing countries is, well,
rich countries are very happy for developing countries to constantly
specialise in the low end stuff.
Right.
Not letting us rise up the value added chain of
producing, you know, uh, more knowledge intensive or capital intensive
or more skilled, keeping them down the ladder.
Advanced economies have a very different view, right?
Developing countries are manipulating their exchange rates, are not engaging
in free trade and taking advantage of, you know, absorbing
the advanced economies, technologies and no IP protection, all of

that.
So it's a pretty, uh, pretty rowdy and chaotic picture there.
And so this is why the WTO, the World Trade Organisation, which kind of is an intermediary, if you will, settles a lot of these trade disputes.
There are lots of trade disputes even between us and Europe.
Right.
Lots and lots of them, um, on things like anti-dumping and all that.
So it's a very clean picture from our point of view, right?
Efficiency gains and comparative advantage.
But in reality it is a lot more complex.
Um, now a third, um, uh, sorry, this is a typo.
Forget about this.
This is not China.
This is another type of trade is called the global value chain, not global value.
China.
Uh, sorry.
Um, global value chain really, uh, exploded as well since the 1970s, as I mentioned in the past, uh, 50 years or so.
And global value chain is very different from or it's different from the idea of comparative advantage, because suddenly we saw since the 1970s that it's not just developing countries trading with advanced economies.
So North-South trade, but the fact that North North are trading with each other.
So European countries are trading with each other and with the US and, and and and so forth.
So what's going on here?
Right.
If it's all about comparative advantage, we should be seeing north south trade.
But instead we see rich countries that are more similar trading with each other.
And so the a very simple notion or a very simplified explanation of global value chain is this idea of geographical splintering of parts.
Right.
These components could all be high capital intensive, research intensive.
So Samsung would, you know, Japan was specialised in certain parts of chips.
Samsung would be specialising in another type of high end materials and US and Europe and various things.
So there's no comparative advantage, so to speak, about capital versus labour, low skilled versus high skilled labour.
So what's going on there?
Well, some reasoning behind the, the, the, the global value chain is that it just makes sense for one country because of scale.
Right.
To specialise in one thing because there's always fixed cost associated with it.
So it's not necessarily based on a low cost or low skill, high skilled bases, but based on the notion that it's possible just to specialise in one different component of that production chain.
And you can do it geographically because of the reasons I mentioned of of lower transportation costs and technology.
So when we looked at the Boeing aeroplane from the very beginning, that was an example of the global value

chain, all these different components coming from different rich countries,
not from different, not from poorer in rich countries, but
just rich countries.
And why?
Because of this value chain, uh, notion.
And as you can see, this has also increased a
substantially because the part of the mystery or the paradox
was why was rich countries trading so.
So much with each other.
Right.
And you know, when we talked about Brexit, we obviously
worried about Europe being our biggest trading partner.
Well we're all kind of in the rich country space.
But this is because of global value chain that we're
trading a lot in intermediate goods.
That is a different type of trade.
There's also trade in multinationals okay.
Multinational company.
If you're a Nike you have one headquarters somewhere, but
you have lots of companies and subsidiaries and all or
all around the world, and you trade between your headquarters
and your subsidiary.
And that yet is a different another type of trade
that also accounts for a large portion of international trade.
So just to just to explain to you that it's
not simply the idea of comparative advantage that drives trade,
but many other forms of trade as well.
And so if you look at the network of intermediate
trade, look at this very complex web, right?
It's a whole network.
It's not that I'm just, you know, China sells furnitures
to the US and US sells an aeroplane to China.
Right?
It's these components that are moving the parts that go
into a Boeing moving around.
And then maybe a few times, right.
One component goes there, it gets shipped back to do
another thing, gets shipped back again to do another thing.
I mean, that's that's the reality of trade.
And you can see that these three countries, China, US
and Germany are the biggest and most connected components of
this global value chain in the entire world.
And everybody, just everybody, with exception of Greenland and sub-Saharan
Africa, a few countries, sub-Saharan Africa that doesn't participate in
the global supply chain or global value chain, everybody else
is is in it.
And so all of these relationships just shows you that
we're not really just exporting final goods.
Right.
Well, we talked about comparative advantage here.
We're talking about final goods.
Right.
I, I, I buy a TV from you.
You you export, you know, um, machines to me.
But it's these components that make up this global network
of, um, of intermediate trade.
Um, so, uh, so that's kind of the notion of
trade.
And we're going to pick up next lecture to talk
about the current account and how that links to the
financial account.
Okay.
Thank you and see you Thursday.
And please, please, I beseech you to start filling out
the surveys, um, so that we can have a better
response rate.

Their responsibilities.
I don't.
I.
Just finished a couple of.
No.
No.
No.
No.
Oh.
Yeah.
Yeah.
I.
Just.
And I was like, oh, you know, because I was
just about to pull.
The whole thing.
And she was like.
People come to our.
Sins to pray.
Yeah.
I guess I basically.
What?
The hell?
And this is what I.
Okay.

Oh.
You can write to me, right?
2310.
It's.
Oh.
Yeah.
Yeah.
Yeah.
What do you do?
I.
Would like to give you some.
I.
But.
This is.
But this.
Yeah.
I.
Yeah.
This is.
One.
That's.
But you see.
Our.
You.
Well.
This.
Okay.
Good morning everybody.
Sorry.
Good afternoon.
Um, we're going to continue with our open macro.
Uh, uh, course.
And, um, you know, wherever we get through however many
pages we get through this handout.
Uh, we'll we'll try to finish this or pick it
up.
Uh, next lecture.
So this is like a free flow, um, continuation of

these handouts.
So last lecture we talked about trade.
Right.
International trade.
Remember that the last few uh, last couple of weeks
of the course we're going to think about open economies
because in principle economies are open.
They trade with each other.
They are they are international financial transactions.
Countries borrow from each other or lend to each other.
So clearly, if we want to understand the whole macro
picture, we have to understand open economy macro as well.
And last um class we devoted it to understanding the
basics of trade okay.
International trade.
Now remember this is a very topical thing, especially currently,
you know, thinking to think about the European green transition
and the decision of whether, you know, we're going to
slap on tariffs on international EVs, uh, from China, from
other places.
Um, that obviously goes against the spirit of what we
were learning in terms of comparative advantage and the fact
that consumers, producers all gain because they have access to
much cheaper, uh, and that more variety of consumer products.
So in that sense, um, maybe importing cheaper EVs is
good for Europe for the transition.
But on the other hand, as we mentioned, a lot
of the politics are not not captured by the economic
drivers.
And the politics would say, well, we need to preserve
our, you know, auto the competitiveness of our auto industry.
Um, this means more jobs.
Uh, it means that these are not going to be
displaced, um, and go to other countries.
But if you think about the other side.
If the other countries start to put tariffs on European
made cars, then there will be a tariff war.
And that is going against the efficiency gains that we
talked about based on trade.
So having an understanding of what drives trade, why are
there benefits to trade where some of the cost to
trade, um, provides a good, important foundation for understanding some
of the underlying, uh, arguments behind these, these debates.
So a lot of the really, uh, topical discussions of
macro does involve international.
And to give you another example, now, if President Trump
gets elected, there will be lots and lots of tariffs.
Um, on, on, on, on European goods, on Chinese goods,
on Indian goods, etc..
What we're seeing is that there's a lot of trade
now rerouted from Mexico and Vietnam all the way back
to the US.
So trade is taking a much longer route to come
back to where it ultimately was always going to end
up.
Um, and this reflects again, kind of still the efficiencies
or the efficiency gains behind trade.
But some of these political problems are causing a longer
route, long winded route of trade.
Um.
So turning to stepping away from trade and understanding another
aspect of the national map, we're going to talk about
the current account today.
Okay.
Current account is also of major international interest and controversy.
So if you think about the fact that, you know,

we've learned borrowers and lenders.
Banks lend to households or companies.
Um, we can also think about it across countries, right?
The US is borrowing massively from the rest of the
world, and it appears as a large current account deficit.
We're going to talk about the definitions, right.
Um, Germany runs a big current account surplus against lots
of European economies.
Uh, at least for a long period of time against
the likes of Italy or Spain.
So Germany lends to these countries, these countries borrow from
Germany.
So what's the idea behind this?
Right.
What should we be concerned about is kind of what
we're trying to get at at, at in this lecture.
Now stepping back a little bit.
This is all globalisation.
Trade is globalisation.
As I mentioned there are two engines of globalisation.
One is trade, one is international capital flows.
Now, if you think about what is the benefit of
being able to lend and borrow from each other as
countries.
Okay.
Think about the example of a Haiti, let's say has
a natural disaster this year.
Okay.
Well, if GDP falls by, I don't know, 20%, let's
say some extreme numbers, then if it was a completely
closed economy, we'll just have to reduce consumption by at
least 20%, if not more, because of multipliers or whatever,
or a little bit less.
But.
The ability to tap international capital markets means that this
year can borrow from creditors.
Maybe US, maybe UK, and repay it sometime in the
future when it's doing better.
Right.
So the ability to borrow and lend across borders has
a variety of benefits, one of which is if you
have bad shocks this year, temporary backed shocks you can
borrow if you have a great shock like the Middle
Eastern countries with great, you know, oil booms and you
can save this money by lending it to others so
that tomorrow or some other day when you need it,
you can get it back, right.
So international borrowing and lending is also very useful.
Just like you as a consumer, you want to borrow
and lend in order to smooth your consumption over time.
Countries can do the same, but by borrowing lending with
each other.
A second benefit of financial globalisation is not just for
smoothing consumption per se, but for investing in high return
places.
Right.
You have a lot of, let's say, a lot of
wealth.
Um, UK is growing at 2%.
Guess what?
You probably don't want to put all your money in
saving in UK, right?
You can go and allocate some of that wealth into
high return emerging markets with maybe 10% per year of
return.
Maybe it's also high risk, but you want to diversify

the portfolio, and so you don't have to put all
your assets in the UK.
You can diversify it around the world.
That's also international transactions, right.
The financial account.
And so all these constitute a globalised world where there's
not only trade, international lending and borrowing for consumption smoothing,
but also where money can go to places with the
highest rate of return to capital.
Okay.
So if you go work for the finance industry, you're
likely going to spread around your portfolio and invest in
all kinds of assets, all kinds of places.
And that is, uh, links to what we're going to
talk about today.
And so switching from trade to international macro, we're going
to start with the definitions about the current account and
the financial account.
So how this links to the last lecture on trade
is going to become evident in a few slides.
Okay.
Let's just think about some real numbers.
Let's say in 2019 US imported $3.1 trillion in total.
Okay.
The total value of imports for the US in 2019
was 3 trillion or so.
And um, of that 3,000,000,000,470 something billion came from China
alone.
Okay.
And what's the other what goes in the other way?
Well, the United States exported $2.5 trillion in total, with
only 164.5 billion going to China.
Now, first of all, we can calculate US's total net
exports, right?
Exports minus imports.
And you realise that exports being 2.5 trillion and imports
being 3.1 trillion, means that the US is running a
trade deficit right now.
President Trump really doesn't like trade deficits, as if, you
know, somehow the US can't export to the rest of
the world as much as it can import.
Now, there's a basic fallacy behind the argument, right?
Right.
Because first of all, American consumers get to enjoy a
whole lot of really great things.
BMW cars, you know, French wine, um, Italian handbags and
so forth.
Right.
And second, this obsession with bilateral trade, right.
With China saying, oh, well, we imported $470 billion from
China, but we only get to export $164 billion to
China.
That seems like a very, very big bilateral trade imbalance.
And he was going after China because of that reason.
Now, what's the fallacy behind this?
What is the fallacy behind this kind of bilateral trade
argument?
The textbook does this a, you know, gives you a
good example.
Um, you know, you and I and somebody else.
I like your goods.
You don't like my goods, but you like his goods.
Does it matter that I buy from you exactly the
same amount that you buy from me?
Well, clearly no.
Right.

It's not bilateral trade that matters.
It's your overall trade balance.
Because let's say the United States decided we're not going to import from China.
Guess what's going to happen?
Well, somebody else is going to import from China.
And guess what us is going to do?
US is going to import from Brazil instead.
Okay.
So yes, maybe you have reduced your bilateral trade balance with China, but your overall trade balance is still the same.
Okay.
The US trade balance is it's going to become clear why that is.
All right.
If you consume more than you earn or you consume more than your GDP, then you're going to run a trade deficit.
It doesn't matter whether it's with China or not, because if it's not with China, it's going to be with Vietnam or Brazil or whatever it is.
Right?
These it's it's the overall trade balance that matters rather than the bilateral trade balance.
Again, coming back to the idea that I, you know, me, you and some third party, I don't have to buy exactly the same amount that you buy from me, which closes that gap.
Right?
It doesn't make any sense.
Right.
It's overall how much I want to buy versus how much I want to sell that matters.
So in that sense.
But what what should we be worried about if we're not worried about the bilateral trade deficit?
What we should be worried about is how sustainable is a perpetual deficit, trade deficit or current account deficit in the future.
That's the thing that we should be worried about and that that what we're going to talk about.
Okay.
So we know the definitions about of the trade surplus trade deficit.
And here let me just show you a photo of or graph of the US.
Just look at us current account.
We looked at the trade deficit in the last lecture.
Um but this is the exports of goods and services.
Okay.
Um, the red line and the green line is imports of goods and services.
You can see this trade deficit certainly has widened since the 1980s.
Right.
We also have discussed last lecture that since the 1980s there's been a hyper globalisation trend.
Right.
This is probably the, the the the you know trade cost has fallen.
Technology tariffs have all been slashed around the world.
The rise of emerging markets.
So the global South and guess what has happened in that interim the US has persistently run a trade deficit right now.

Is that of a concern.
Now this is the total overall US trade deficit, not
the bilateral trade deficit with some particular country.
Again that just doesn't matter.
Right okay.
So how does that actually link to the current account.
So um, there's a risk of boring you into submission
in the next ten minutes.
But we have to kind of crank through these basic
accounting, uh, to understand the concepts a little bit better.
Okay.
Um, there's something called the balance of payments.
A very, very important, um, accounting procedure that records basically
all international transactions.
Now, when we study GDP, we were, you know, kind
of going through the basics of, um, accounting for GDP
and intermediate goods and intermediate value added and all that.
Sorry, the value added and stuff like that.
It's a little bit, um, in that sense, the accounting
nature of this is very similar, but it records transactions
across borders.
Okay.
There are many different kinds of transactions.
So we're going to try to understand these transactions when
I give you a final example.
But first of all um, note um, two things.
One is payments from foreigners and one is payments to
foreigners.
Okay.
This should be evident.
I know that it was a little bit confusing.
The first lecture when we talked about net factor payments
to, you know, to foreigners and all that.
But look, in this country, there are lots of international
citizens, right?
Citizens from other countries, um, US, India, China, whatever it
is.
Right.
And when they work here, um, you are making a
payment to them, right?
You're making an income payment to them.
So that would be income payment to foreigners.
Okay.
There are lots of lots of tourists here.
Lots of tourists come here to buy our goods and
services.
Watch the show.
Um, uh, Lion King.
Uh, that is a payment from a foreigner for our
goods and services, right?
We're going to try to separate these things and then
go through a basic accounting exercise to understand what constitutes
the international transactions.
Um, so when we definition of exports, it doesn't have
to be just goods.
But when you're receiving payment from some foreigner for either
goods or services and it's an export, right?
We're exporting a good or service.
Now, just to be clear goods.
We understand what that is.
Exporting goods.
Right.
Exporting our, um, our products.
Uh, what is a good export of a service?
Well, for instance, if you, you know, if a Canadian
tourist buys a meal at a restaurant or pays for

it, that's a service, right?
That's not a good.
It's a service.
Financial, uh, financial services is also a service, right?
Digital service is service.
I should be fairly clear that it's not trade.
It's not just about shipping goods across border, but service
providing is also um, account in that, in that, in
that, in that realm.
Um, so payment to a foreigner or receiving payments from
a foreigner for our sale of goods and services and
export, um, receiving income from assets that domestic residence owns
in foreign countries is a faster payment from foreigner.
I know it's a mouthful, but let me try to
give you an example.
Uh, let's say that UK resident owns a share of
Google stocks, okay?
And Google pays dividends to us living in this country.
Well that is a factor payment okay.
Of capital right.
Factor is labour and capital.
That's a capital payment from the US or Google to
uh the UK.
So that's a payment from a foreigner.
Now for instance um we hire let's say domestic workers
from I don't know, um, from Nigeria and we pay
this Nigerian domestic worker and income that's a factor payment
to, uh, a foreigner.
Okay.
So these are these are all in the current account,
um, which, which will, will, uh, elaborate receiving transfers from
individuals who reside or from foreign governments, if it's a
unilateral transfer, a gift, okay.
Your parents give you a gift or we forgive Icelandic
debt.
That's a transfer, okay.
That's a gift from the government transfer.
So income payments from and payments to and so payments
two would consist of imports.
Right.
We're importing some goods or service factor payments to foreigners
or transfer to foreigners okay.
So this is just I think this will be very
obvious what it means to be paid from a foreigner
to or paid to foreigner.
But just to be clear.
Okay, so the current account.
Okay, just bear with me for one second.
Don't read this slides.
Um, the current account, which is something that you're going
to hear a lot.
Consists of international transactions in goods, okay in services, and
it can consist of net factor payments from abroad.
Excuse me.
When we talk about net it's obviously exports minus imports
payments to minus payments from right.
So current account consists of primarily three kinds of transactions.
One is goods and services.
Okay.
So this is exports of goods and services.
Second is factor payments again income payments from capital or
labour.
Right.
The examples I give you and transfers again the kind
of unilateral transfers or gifts or whatever.
So the current account consists of these things.

Now when we talk about net exports it's payment from
abroad.
So basically exports minus imports.
Net factor payments is payments from abroad minus payments to
foreigners and so forth.
Right.
That's the net idea.
Okay, so the current account is simply just the sum
of net exports, net factor payments and net transfers.
So these mainly these three items.
Okay.
So again we gave you this example.
But just to reiterate what kind what counts as stuff
in the current account.
Let's say we import a Nintendo Wii that's a goods
import right.
So that's count as a current account, right.
A German tourist purchase a ticket of a play in
London.
Again, that is and that's an export.
But also in the current account, export of a service
to a foreigner.
Right.
Um, a Filipino domestic worker in the UK remits her
income back to the Philippines.
Uh, transfers of income, payment factor, payment, uh, to a
foreigner.
So that's also in the current account.
Okay.
This is the three main things that, um, uh, or,
um, these are the items, uh, that is in the
current account.
So let's just look at the real, uh, data in
2019 for the US.
Okay, so goods and services in the US.
Payment from foreigners.
Okay.
So the US exports.
Uh 2 trillion.
2.5 trillion.
Payment.
Two.
Foreigners.
Imports of goods and services 3.1 trillion.
That's exactly what we saw before.
Okay, so net payments is -611.
But that is not all of the current account, right.
The current account also includes two other categories.
Factor payments.
So foreigners paying US citizens, whether it's capital or labour.
1.1 trillion US pays foreign citizens capital or labour income
900 billion.
So this is actually a surplus for the US.
So even though the US has a trade deficit of
611 billion, it's actually on net received $270 billion on
net through the factor payments.
Okay.
Transfers.
Um, foreigners paid to the US 147 billion US paid
to foreigners 309 billion.
So the net of this is minus one six two.
So 147 -309.
So you add these three categories together.
And then you get a 500 oh $3 billion of
current account deficit okay.
Now the current account as we're going to see is

simply net capital flows.
Okay.
So current account deficit of $503 billion is going to
be the other side of this is 500 $503 billion
of US dollars flew into America on net.
Okay.
That's just going to be the on the other side
of this.
So that is, um, three kinds of international transactions.
Now, this is distinguished distinct from what's called the financial
account.
Okay.
Lots of students get confused.
So make sure that you're not going to be confused.
Now current account.
There's going to be a relationship between the current account
and the financial account okay.
Financial account now records all international transaction in assets not
goods and services not factor payments but in assets.
It's the ownership of assets.
Right.
You own a stock of an Apple share, right?
You sold it.
You're basically transferring that ownership to somebody else who's buying
it.
Right.
So that's assets.
So the financial account records transactions in let's say debt
which includes bonds and loans equity.
What I mentioned buying a stock in um, Apple or
uh, I don't know, an American citizen buying a stock
in, um, a British Airways.
Uh, and it could be real assets such as land.
Land obviously is not moving across borders, right?
It's not moving from America to here.
But what you're doing is you're changing hands.
You're changing the ownership.
So the flows of the ownership of assets is counted
as being recorded in the financial account.
Okay.
So let's look at an example.
Um.
The UK resident purchased an Apple stock that is obviously
a financial account, right?
UK imports.
Okay.
A stock.
Um, an asset a US asset.
Right.
The UK imports an American asset.
Uh, we bought a Nintendo Wii.
So Nintendo gets a check from whoever bought that Nintendo
Wii and deposits the check in a Barclays bank.
Barclays basically UK exported an asset.
Okay.
What's that asset?
That's a check.
A check is an asset.
Okay, so we gave Nintendo a check.
That's an export of an asset in, um, in the
financial account.
Right.
So all these things are not goods and services.
When you buy a Nintendo, that's an import of a
goods and of a good.
So that's a current account.

But when Nintendo deposits that check in a Barclays bank.
Um, that's in the financial account, right?
Because that's an asset.
Is that clear?
Okay.
Um, so the magical thing that comes out is that
the current account and the financial account adds up to
zero.
This is the fundamental equation of balance of payments.
Because as we're going to see every entry.
Is offset by, let's say, every plus entry is offset
by a minus entry in some other place.
So everything has that has to add up to zero.
The Nintendo example is is is a good one to
think okay, so let's say we pay £500 for a
Nintendo Wii.
We imported a £500.
Current account.
Right.
Import.
Okay.
What do we do?
We paid them with a £500 check.
Okay.
That is an asset sale.
Okay.
A UK export in of an asset in the financial
account.
Okay.
So one is a minus an import one is a
plus and both are £500.
So they add up to zero.
They sum up to zero.
Every one transaction is mirrored by an opposite transaction.
So if you take the US US imported let's say
I don't know, um, a 500 oh $3 billion of
additional goods then it exported.
Right on the other side is the financial account of
$503 billion that's owned now by foreigners.
Right.
They own US assets in the amount of $503 billion.
So that add up to zero.
So every time you purchase something, you have to purchase
it with some money.
And that is part of the um, the financial account.
So anyway we're going to look at this more in
detail with a very specific example.
This tends to get a little confusing.
I wouldn't get too bogged up by the details because
again this is not the focus of this course, but
the reason that we go through this basic accounting is
for you to understand the kind of transactions that happen
globally, and try to connect it later on with some
deeper mechanisms that we want to discuss.
Okay.
Any any questions.
Questions.
Okay.
Let's continue to look at um, uh, the, the an
example.
Okay.
So this is the example I gave you.
Why do they send up to zero current account for
a financial account, when US residents may make $503 billion
of net payments to foreigners because they imported $503 billion
more than they exported.

These payments are made in US dollars.
Are they not?
Right.
I paid them with US dollars.
And what happens?
Will these foreign guys get the $503 billion of US
assets?
That could be an they could save it.
Okay.
They could buy us Treasury bonds, right?
They can buy us goods and services.
Right?
They can invest in US assets.
They can do all that stuff with these 500, $3
billion.
That's part of the financial account okay.
When US import in more than export, it's part of
the current account.
But they add up to to zero.
Okay.
So here's a very detailed example.
So hopefully after this example things will be crystal clear
okay.
You might not be able to read this small but
I will read it to you.
So let's take the example of Hungary.
Okay.
So we are hungry.
That's coming from our perspective.
Okay, so as we read through this, you got to
tell me, is this a current account as part of
the transaction, the current account or the financial account?
And even more bonus points, you tell me if this
is a current account, um, import debit or credit.
Okay.
Minus or plus.
So a Hungarian citizen buys German state bonds.
Current account or financial account.
Financial account.
Right.
So Hungary has now imported.
An asset for an asset.
And let's say the the the it is ten €10.2
million okay.
Dividends received by Hungarian investors from foreign investments.
Current account or financial account.
Current account.
Good, right.
Because it's a factor payment from some investment okay.
And that's €10,000 okay.
And yeah Hungarian government provides aid to Sri Lanka.
Okay.
Current account.
Good.
You guys are getting getting this so.
Well.
Um, okay, so that's €500,000.
Okay.
Um, that's a transfer.
That's a current.
That's a that's a that's an export.
Right?
From an account.
Uh, so expenditure incurred by Mercedes to expand its capacity
to build cars in Hungary.
Mercedes expands capacity to build cars in Hungary.

Financial account because it's an ownership of an asset.
Okay.
That has increased, right?
It's an asset.
It's an ownership of of something in Hungary that is
expanded.
Excellent.
Okay.
That's that's a million payments made by British citizens for
Medical Services.
Uh, in Hungary.
Turn account services.
Okay.
Does anybody else want to try?
Um.
Excellent.
So a service, um, uh, a service, uh, export of
Hungary.
Right.
Payment made by a Hungarian to rent a boat in
Croatia.
Current account.
Right.
Okay, good.
Um.
Again.
Services.
Right.
You're not buying the boat.
You're buying.
You're renting it.
Okay.
€30,000.
Entry fees paid by French citizens to the National Museum
in Budapest.
This I will answer for you because I think everybody
gets it.
This is a current account.
Um, because the service, uh, export service, export of Hungary.
Receipt of funds from the European Union.
Current account, right.
These are transfers.
Unilateral transfers.
Salary earned by American citizens pursuing a temporary job in
Hungary.
Again, current account because a factor payment of Hungary to
an American citizen.
Okay.
Excellent.
So we now understand the distinction between current account and
financial account.
Let's do some numbers.
Let's do some math and see if they add up
to zero.
So, um, remember that when we do this, we want
to look at a payment to a foreigner and a
payment from a foreigner.
Okay.
So let's look at all the trade and trade and
goods and services.
Trade and goods and services consisted, first of all, um,
an export of Hungarian goods or services, um, uh, consisted
of the British people to take medical service in Hungary.
Right.
That's an export of the service from citizens visiting.
The National Museum is an export.

Right.
So that's a payment of, um, from a foreigner.
So that's 20,000 plus 500, um, uh, in payment.
And what's the current account import?
Uh, we imported a service Hungarian imported service in the
in the amount of 30,000.
So that's net payments from foreigners.
Net payment.
Sorry, this is payments from foreigners.
Payments to foreigners.
Net is €909,500.
Uh, net payment.
Okay, so what was what was the factor?
Payment example?
Uh, Hungarian vested.
Um.
Uh, Hungarian investor receive dividends.
Okay, so that's the capital income.
And then we paid some Americans who were doing temporary
consulting job.
Uh, so that's 10,000, -€300,000.
And that on net is -290,000.
Okay.
So these are again are different categories in the current
accounts.
Now Hungary receives some funds from the EU.
That's 10 million.
And Hungary, Hungary gave unilaterally aid to Sri Lanka.
And the in the amount of 500,000.
That's a that adds up to 9,000,009.5 million in total.
So then you add up all these together.
The current account is €9.2 million.
Right.
So exports exceeded imports by 9.2 million.
Or in other words, payments from foreigners to Hungary exceeded
payments to foreigners by 9.2 million.
Um uh euros.
And what does that mean?
That means that there was a net capital.
Inflow.
Right.
Um, of 9.5 million.
Okay.
All right, so, um.
Let's look at the form a financial account.
So in the financial account.
Increase in domestic assets held by foreigners.
Uh so this is the definition of, of uh, of
financial account and the only financial account in this entire,
uh, um, uh, example, uh, was the Mercedes example.
Uh, so, uh, Mercedes expands capacity to build cars.
Oh, sorry.
Yes.
Um, the first example is also the financial account, as
we mentioned, Hungary and buys German state bonds.
So inflow payment to foreigners of 10.2 million.
Receipt from foreigners 1 million, -9.2 million.
So this is exactly.
Equal or this is exactly the mirror opposite of the
current account.
Okay.
So again, once you import services and goods on net,
you have that money and the foreigner uses that money
to do something.
So in the financial account in this example it was
to buy German bonds.

And it was for Mercedes to buy a Hungarian assets.
Okay.
So in this sense this gives you a very specific
and detailed example of, first of all, what constitutes the
current account, what constitutes in the financial account, and how
they add up to zero.
Now, in practice, it's a little bit more complicated than
this, right?
Apart from the current account financial account, there's a capital
account.
But the capital account is very, very small.
So you can just basically think about, you know, primarily
the international balance of payments as driven by these two
things, which is a debit on one side and credit
on the other side, and they have to cancel out.
Questions.
Okay, so now this would be a simple example.
Again to illustrate the link between the current account and
the financial account.
Right.
So let's say um, China sells us a laptop in
the amount of $1,000.
Right.
It costs $1,000.
So what is what is the US pay US pays
$1,000 to China.
China?
China uses $1,000 to buy US Treasury bonds.
Right.
That's a financial account that offsets the current account.
Now, this Treasury balance can be used.
Later it can be used later.
These funds assets can be used later to either buy
more American goods or more American assets, whatever it is.
Um, this is the idea behind the current account and
the financial account balance.
Now, what does this all mean?
Right?
How do we link it to some real economics here?
Because so far it's just accounting, accounting transactions, recording transactions.
Now let's recall that, um.
In a closed economy.
We had this expenditure equation, right.
GDP equals or income.
National income equals consumption plus investment plus government spending in
a closed economy.
Now we have an open economy.
The additional is net exports okay.
Net exports sometimes is concurrently used as with current account.
There's some slight differences but we're not going to elaborate
here.
Right.
Um net exports therefore can be thought of as savings
minus investment y.
Well, what is y minus c minus g income minus
private consumption minus government consumption is national saving.
Okay.
So s is national saving.
So net export is simply national saving minus investment.
Okay, so when are you running a current account surplus
or a net exports surplus?
When you're saving is greater than your investment.
Okay.
When are you running a deficit?
When your saving is less than investment.
Okay, let me let me break it down for you.

So your we have a country UK right.
Let's say our saving is a certain amount of money
I don't know.
Let's make it up.
£300 billion.
Okay.
The total amount of investment that went into the UK,
let's say, was £200 billion.
Okay, so what happened to that 100 billion?
Right.
We say 300 billion.
We only invested 200 billion in the UK.
Then it must mean that $100 billion went out of
the country.
Right.
So that's a net capital outflow of 100 billion.
And that's exactly the current account or the net exports.
So in the US the savings minus savings was less
than investment.
So why do we keep on saying, well, you know,
why are we worried about the current account deficit in
the US but because.
The savings you're borrowing.
What does it mean to be borrowing?
You're saving less than the total amount of investment that
happens in your country, right?
If you're saving is less than the actual amount of
investment in your country, and must mean that you're borrowing
from abroad when you're saving is greater than your total
investment, it must mean that you're lending.
To some foreigners.
All right.
Um, and again, that comes from the flip side of
the trade balance.
Think about it this way.
The US has imported more goods than it has exported.
Right.
How do you think it will finance that $503 billion
of of more imports and exports?
It must be that it is borrowing from abroad.
So when it started issuing these assets, these US treasuries,
US assets, it is it is borrowing effectively.
So foreigners are lending to the US to buy these
goods.
Now when you have a perfectly balanced trade, are you
not borrowing a lending?
I exported $50 billion to you.
You bought $50 billion from me.
There's no net lending, net borrowing.
But if I bought more, then you bought from me.
The I am borrowing from you.
Right.
So in that sense this is connecting to this is
connecting the flows of the macro to the trade flows.
Again when you're saving you're saving is greater than how
much you've invested domestically.
I'm running a current account surplus I'm lending abroad.
So coming back to the example of President Trump, what's
the fallacy here?
The fallacy is that your trade deficit with a particular
country is not going to matter.
Your overall trade deficit matters, because as long as you're
saving less than you are investing, you must be borrowing
from somebody else, right?
Let's say that it closed the trade deficit gap with
China.

Does it trade close the trade deficit and total?
No, because it's just simply going to import from somebody
else.
And why does America import or why does America import
more than exports?
Or what's the consequences of importing more than exports.
You're running you're borrowing from foreigners.
Okay.
So, um, in that sense, current account deficit could be
problematic because it represents, uh, net uh, borrowing or lending.
So when you're saving is greater than investment, you're having
a net capital outflow.
Right.
Capital is flowing out net when it's less than zero
than it is um, inflow.
So this is the US current account deficit.
As you can see it's declined significantly.
And this is percent of world GDP.
So us or sorry this is actually the blue line
is the current account balance of advanced economies.
And this is primarily driven by the US and the
UK Anglo-Saxon countries borrowing like crazy.
Okay.
And the surplus countries are the East Asian countries and
Middle Eastern countries.
Right.
So this is deficit meaning the borrowers are the advanced
economies.
The international lenders are the Middle East and the East
Asian economies.
Okay.
So again, these countries importing more than exporting.
So borrowing from abroad, these countries exporting more than they're
importing.
So lending to others.
Okay.
So again that's the connection between trade and macro okay.
Current account and trade balance.
Okay, so what's the issue here?
Um, can the US borrow forever?
Because the US is borrowing, running a huge current account
deficit.
Now, think about it this way.
When you're borrowing from somebody.
The implicit or implication is at some point you're going
to repay.
Right.
You can't borrow forever.
At some point the US has got to run a
trade surplus so that it is exporting more than it's
importing.
Right to repay, uh, what has borrowed.
Now the.
Let's say the problem, why everybody is worried about the
current account deficit or the trade deficit in the US,
is that at some point, if it can't repay, then
first of all, are people still going to purchase US
assets?
Right.
Are you still going to fund us with that borrowing
by buying their Treasury bonds?
Second.
Maybe it will entail a sharp US dollar depreciation.
Because when the dollar depreciates, guess what?
It's going to be able to export more because its
export goods are cheaper, right.

When the US dollar depreciates.
Right, or in some sense you're going to owe less
to the foreigners.
Okay, so this trend was something of a fixation.
Of policymakers and economists.
You can think about why.
What's the puzzle here?
The puzzle is that, look, rich countries are borrowing from
poorer countries.
That's not at all what we learned in the solo
growth model type of thing, right?
What does the solo growth model tell us?
Solo growth model tells us that because capital is scarce
in developing countries, that also means the marginal product of
capital is high.
So the return to investing in emerging markets should be
higher than the return to investing in the US and
K, which means that capital should flow from rich countries
to poor countries where the returns are higher.
What we're seeing in this picture is exactly the opposite.
Capital is flowing to the rich countries from saving.
Um, emerging markets.
So that's the puzzle of a reverse capital flow syndrome.
And that's why people were very much fixated with this
current account.
So people tried to explain it.
Let's see how many more slides we have.
Okay.
Now just one last topic.
Um, people were trying to understand the reason why the
US was, you know, consistently running these current account deficits.
So a benevolent view is, look, you know us is
just has the best financial system in the world.
So it has the most liquid, deepest, broadest set of
financial assets, which is actually true.
Right.
So you with money like to purchase US assets.
And it's often referred to often as a safe haven.
Why does the US dollar always appreciate in times of
crisis, even when it is the cause of the global
crisis?
Very ironic because it's perceived to have safe assets.
You invest in it, you get, you know, kind of,
um, less volatile returns back.
So the benevolent view is everybody's investing in the US
because it has just better superior assets.
So investment in the US goes up even though savings
might not have changed much.
Right.
That's a view of the current account deficit.
Another view was the saving glut from emerging markets.
Somehow emerging markets saved so much because of demographics, because
of, you know, high savings rate in countries like in
East Asia.
And it saves more than it can possibly invest in
East Asia.
So the net of it flows to rich countries.
So that's coming.
That's another view from emerging markets, a pessimistic view, which
is what the the view of the model will tell
us, is that us can't is borrowing beyond its means.
What does it mean is borrowing more than can possibly
repay in terms of trade surplus in the future.
And that is disaster, because then at some point, investors
are not going to buy US assets, US dollar will
depreciate and that will be bad for us, for everybody,

for all the investors.
Right.
So this is just, you know, again, just some um,
qualitative views about the current account.
Okay.
So last few minutes, um, very simply foreign direct investment
is different from portfolio flows.
And when you buy stocks and bonds that's portfolio flows.
Foreign direct investment kind of like the Mercedes example is
when you go and you directly invest in the country.
And usually it's for the longer term.
So when you invest in factories, when you go and
build your headquarters, they're building research centres or data centres
or build factories and, you know, start operations.
That's a foreign direct investment, right?
Again, not about buying this Apple stock or, um, buying
a German bond, but a foreign direct investment is also
a very important part of the international capital flows.
Right?
It's not just about trading stocks and bonds.
Um, so the definition is that this kind of capital
flows must generate a large ownership stake in the local
firm.
Right.
You own something there.
And this is very important because it also provides a
source of technology transfer, uh, to, to other countries.
Now, um, I'm going to end with, um, slightly more,
you know, food for thought.
Again, not exactly economic concepts, but, you know, because economics
goes beyond just pure numbers and what we learned, but
also the pros and cons, we talked about the pros
and cons of trade, right?
Lost workers, low skilled and lost jobs.
And so in some sense when you have FDI, um,
in some countries it's also controversial, right.
So one part of the argument is companies like Nike
go to Vietnam and they get such cheap labour.
Right.
And that's why the shoes that you're wearing can be
more affordable.
But guess what?
The Vietnamese workers are in poor labour conditions earning I
don't know how much $3 per week or something like
that.
Um, very, very low and uh, maybe not great conditions.
So lots of, you know, controversies there.
But the other side of the argument and again, all
these things are very complex, right?
It's not black and white, and it's not necessarily what
you read in the headlines.
The other part of the argument is, what would they
have been doing if Mike Nike were not there?
Then they might be working in agriculture, might not even
have jobs, might even be in worse situations.
Right.
So you have to look at this with multiple sides
of the coin.
But again, because of this globalisation and trade explosion in
the last few years, in the last few decades, labour
conditions has also improved.
Um, so anyway, this is just about Vietnam.
This is just an example.
Lastly, about the fact that child labour again, international controversy
not necessarily related to economics, but this is a graph
of how poor countries use a bigger share of child

labour.
Okay.
That is also another problem with financial with globalisation.
But again it's always two sides of the same coin.
All right.
See you on Thursday.
Please do continue to fill out the surveys.
That would be much appreciated.
Thank you.
All of.
We.