

VOLUME 1 • ISSUE NO. 2

# LOGICAL ECONOMICS

**AUTHORS:**

AARON S, MORSAL P, SAHIBA K  
ESHANA B, ADEMIDE B  
MR. SHAH



61009800461091 >

# CONTENTS



## **PAGE 3**

### ***FOREWORD: ECONOMICS IN REVIEW***

Mr. Shah's summary of the changes that machine learning, large language models (LLMs) and AI is bringing to markets.

## **PAGE 4**

### ***CLOUDY LOGIC OVER NEW VAPE TAX***

Have you heard about the new vape tax that is imposed by the Government? Are you affected and what does it mean for others? Read to find out more!

## **PAGE 5**

### ***INVESTING - THE RISE OF NVIDIA & AI***

How much more can Nvidia grow? How has Nvidia created such a strong barrier to entry within the GPU market? How long will their lead last?

## **PAGE 6**

### ***SCREEN TIME & YOU***

A tool can be used for good and bad, it all depends on whos using it. Our use of digital devices are increasing and the hours we spend viewing our screens is increasing. Is it all bad?

# FOREWORD: ECONOMICS IN REVIEW



Welcome to our second issue of Logical Economics; this termly publication has been designed by students for students to help better understand stories that happen around the world, with just a hint of Economic theory sprinkled in.

Technology has been the focus of this year to date. Previous gloom about recessions and cost of living have been on the back burner and now much of the focus has been on the buzzword of "AI".

The race for competent AI, Machine Learning and Large Language Models has been hotting up and the impact of this has changed the face of several markets. The mighty dominance of Apple, Microsoft, Alphabet (Google) , Meta (Facebook) and Amazon has been reduced by the growing demand of GPUs and system architectures that underpin AI.

This change could see more competition in a once poorly contestable marketplace; Google may not be the most used search engine in the future; Meta may not be the worlds most used social media platform. As AI's disruptive technology continues to change the shape of so many businesses/markets, we are going to see some interesting changes to how businesses operate as well as how we behave.

Continue to think critically and understand that as the world changes, we still will have a place in it; find you and yours.

Mr. Shah

1)  
<https://developers.redhat.com/articles/2022/11/21/why-gpus-are-essential-computing>

# Cloudy Logic Over New Vape Tax

By Sahiba Kohli, Eshana Banerjee, Morsal Parwas



## Cloudy Tax

Recently, the Spring Budget announced a new tax placed on vapes as ministers fear that the relatively cheap cost makes it more accessible for young people and non-smokers.

First of all, what is a tax? A tax is a mandatory contribution from individuals and corporations that is collected by the Government. (1) The tax collected is used for the betterment of the economy and all who are living in it. There are two types of main taxes, indirect and direct taxes. Direct taxes are paid directly to the Government by an individual or organisation, eg. Income tax. Whereas, an indirect tax is a tax that an individual pays to someone else and then is paid to the Government, eg. VAT. (2)

The new vape tax is an indirect tax, and it is a specific tax, which is a fixed amount of tax placed on a good. (3) This means that if you vape, you will be paying a high price as of October 2026.

References:

(1) Tax  
[Taxes Definition: Types, Who Pays, and Why \(investopedia.com\)](#)

(2): Types of taxes  
[Direct and indirect taxes: What is the difference? - IONOS](#)

Morsal: Budget  
<https://www.bbc.co.uk/news/business-68480102>

## Vaping Tax and the Budget

In 2022, McDonalds announced that they were going to raise the price of the 99p burgers to £1.19. However, the real question is why have the burgers increased in price? The cost of making a burger has increased for McDonalds as well as for everyone else due to rising energy and ingredient prices. This means that McDonalds had the choice to either absorb the cost, meaning they pay out of their own pocket or they increase the price and pass on the cost to the consumers.

Milk, cheese and eggs had risen 29.7% in 2023 and this was due to many reasons, one being Russia's war in Ukraine, which sent oil and gas prices to record levels, which disrupted supplies from two of the world's biggest exporters of fertiliser, wheat, barley and other cereals, with a knock-on effect on farmers worldwide (1). As a result, McDonalds as well as retailers were forced to increase their prices, otherwise they would be making a loss.

Now we understand why McDonalds had to increase their prices, but who is really affected by inflation?

## Who does it affect?

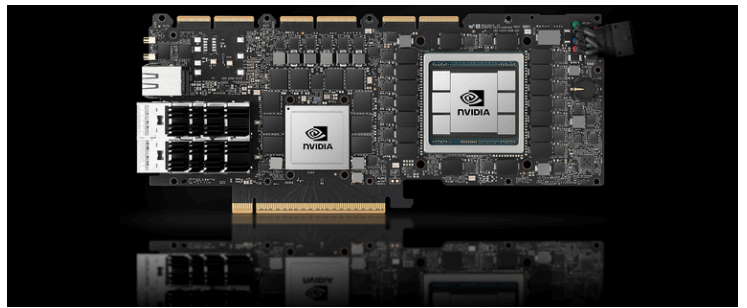
Although it might be thought that only the people who directly choose to vape are directly affected by this tax, it may also affect people who have never directly vaped in their life. This is because of an economic term, called, 'external costs'/'negative externalities'. In the context of vaping, people who don't vape, might also get health related issues, due to passive vaping. Therefore, if there is a tax placed on vapes, the demand for vaping may reduce, as it is more expensive for consumers.

Through a tax, this might also reduce the amount of passive vaping which could also reduce the burden on the NHS. In addition to this, Government tax revenue will increase in which they could use to spend on things, like the NHS. On the other hand, it can be said that as vaping is addictive, an increase in price may not affect quantity demanded as much.

In the long run, as Jeremy Hunt, (the 'Chancellor of the Exchequer'), said that they would introduce this tax in 2026, in their 2024 budget, (which was released on the 6th of March), (4), consumers might expect a change in price, in which they might choose to stop their vaping addiction, assuming the customers are rational.

# Investing - Nvidia

By Aaron Syed Seers



demand for companies like Amazon, Microsoft and Apple. The data centers these company use/operate require Nvidia technology to function and when they had more people using their services, demand for Nvidia's chips increased.

In economics, this is called Derived demand. When the demand for one good comes from the demand of another good. So after the pandemic slowed down, the demand for Amazon, Microsoft and Apple went down and so demand for Nvidia's chips went down.

## The future...

However, the most important thing happened recently where people saw the impact of AI and when ChatGPT was released, people got to see how impactful this technology could be.

This is when investors saw the potential of what Nvidia could do. No one else in the market could do what Nvidia could do. Their technology investment was strong and they have designed products that are easy to use. They have also developed a way to keep people using their products using the CUDA toolkit.

This creates a strong barrier to entry as many companies that demand Nvidia products will not go to their competitors and so Nvidia can set higher prices and this increases their revenues and profits. This is why share prices are increasing. But also, if Nvidia is being used in every new technology for automation and robotics, there will be even more demand.

If they keep this focus, their share price in the future will keep growing and they will become one of the most valuable companies in the world as everything will need to use their products. Over time, however, this might not be able to last as competitors may see this as an opportunity to get some of Nvidia's market share... but the questions is, can anyone compete with Nvidia right now or even in the near future?

## Nvidia - what do they do?

Nvidia began focusing on enhancing graphics for personal computers with the focus of them being better visually in the future. They grew well selling their graphics cards over time and even got into selling chips for Xbox.

Over time, they eventually became one of the best and highly sought after company that makes GPUs. They were one of the first companies that made these and eventually made and make the most advance AI chip we see now.

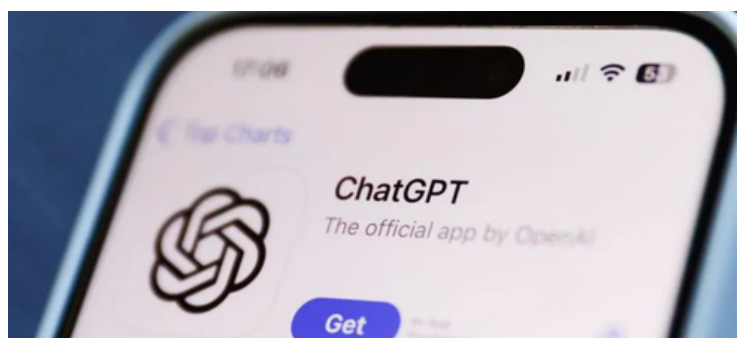
These GPUS are being used in everyday things we use, from cars to supercomputers to data centers (where websites/cloud storage is).

From this, they have grown to be the strongest innovators creating even more powerful tools that help with automated cars to bitcoin mining.

Demand has increased over time but massive growth was from the pandemic because there was an increased

References:

- (1) <https://www.bbc.co.uk/news/articles/c4nglq80w7eo>
- (2) <https://www.ft.com/content/b76ef55b-21cd-498b-ac16-5660908bb8d2>
- (3) <https://developer.nvidia.com/cuda-toolkit>
- (4) <https://www.bloomberg.com/news/articles/2024-07-05/nvidia-nvda-gets-rare-downgrade-as-analyst-warns-about-future-upside>



# Screen time & you

By Adimide Balogun



## Screen time - what does data say?

According to the PubMed Central journal, “excessive screen usage can lead to problems in social-emotional development, including obesity, sleep disturbance, depression and anxiety. It can impair emotional comprehension, promote aggressive behaviour and hinder social and emotional competence.”

This is one of many studies that shows us how negatively excess screen time usage can do to us. However, can we say that there is so much positive good that can come from using mobile devices like smart phones before we go to sleep?

If we use them sparingly, 1 to 2 hours a day, it can help us “demonstrate higher levels of ‘psychosocial’ functions than people who don't use devices at all. Since we can't use devices like these in our society because we use them in all aspects of our lives, it is hard to escape.

### References:

- (1) <https://www.ox.ac.uk/news/2019-10-22-moderate-use-screen-time-can-be-good-your-health-new-study-finds>
- (2) <https://www.bbc.co.uk/tiny-happy-people/articles/zck8cmn>
- (3) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10353947>

If we then use screen time in moderation, we can see health benefits which can help us improve our ability to achieve well over time.

## A balancing act

For example, if I were to use my phone and watch videos about Economics or Maths, this is me technically using my device and having screen time but I am using it for good. This can lead to a positive impact for my life but also help society as I can be a better member of it as I get more skills, I can be more productive which can help businesses or if I set my own business up, I can help others in it. This will help improve positive externalities.

From the BBC article, Janet Cooper who is a speech and language therapist, states that there is “no hard and fast rule around screen time” and that “you've got to use some common sense and see what reaction your child is having... it's all about balance”. Too much of anything can lead to negative impacts and too much screen time does this too.

The younger you are, the more you spend on screen time, the more likely you are going to face social skill issues. Children learn most of the social skills in their first year and it's a key time for them to get as much human interaction as possible. This is when babies develop their foundations of language and how to talk with their parents and other people. If they are on their iPads or tablets all the time, they lose out on those interactions.

Some people argue that social interactions can still be copied on tablets and digital devices. As technology develops, we might see different ways to interact like through the metaverse or omniverse where screen time is how we get to interact. Learning can still take place but it is done through a different way.

If I had to summarise this, I would say, screen time needs to be balanced on what we are doing on it and how long we are doing it for. Even if I used it all day to revise, if I am not balancing it with face to face interactions, it will still not be healthy for me. But the same is true if I don't use my phone/computer to help me research and revise. I could be left behind. Balance is the key.

