

## **On *Technofeudalism: What Killed Capitalism?* An interview with Yanis Varoufakis**

**Interview by Michel Zouboulakis**

Yanis Varoufakis is an economist and politician. After serving as Greek Finance Minister in 2015, he went on to co-found the Democracy in Europe Movement 2025, of which he is now Secretary-General. The author of many books and academic papers, his latest work, *Technofeudalism: What Killed Capitalism?*, was published by Bodley Head in 2023.

Professor of Economics, and editor of this journal, Michel Zouboulakis interviewed Varoufakis in December 2023. What follows is a transcript of that meeting.

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**Michel Zouboulakis:** Dear Yanis, I'm very happy to talk to you live again. Our discussion will focus on your latest book, *Technofeudalism: What Killed Capitalism?* I have read it extensively over the last few weeks and I have six questions for you. I will focus mainly on the economic side of the book and less on the political aspect, although they are very well connected to each other. So, the first question: what is technofeudalism? Which are its main characteristics?

**Yanis Varoufakis:** Technofeudalism is a socioeconomic model of production, which in my view has transpired after a rupture within capitalism caused by a new form of capital, a mutation of capital, which I call cloud capital. In the same way, the great transformation – Karl Polanyi's term – shifted the feudal mode of production from one where land ownership bestowed upon its owners – the landed gentry – economic and social power, and the power to extract rent from the peasantry and from vassal merchants and artisans. That great transformation in capital meant that land was replaced by capital, by machinery, as the source of power and the main fuel that drove the economy – political economy, the social economy – was no longer rent, even though rents remained within capitalism. Rather, it was profit.

Technofeudalism is the next socioeconomic phase of mode of production where the two pillars of capitalism which are on the one hand, markets, through which, under capitalism, all economic activity passed, like under feudalism, including the labour market. Markets were replaced by digital platforms that resemble fiefdoms. Only, they are not made of land, but they are made of cloud capital. They're made of algorithmic capital, which erects new enclosures around fiefdoms that are owned by capitalists, who, however, own cloud capital, not any kind of capital, and that gives them the opportunity to charge rents for access, which are called cloud rents.

A practical example: Amazon.com or Alibaba or Scrooge or Airbnb or Uber. They have remarkable interfaces which attract and locks users – members of the public – into them; that attract sellers who are operating like vassal capitalists within that digital fiefdom or cloud fiefdom. You know, Jeff Bezos, who owns this whole thing called Amazon.com, has used remarkable R&D,

remarkable investments in mind-boggling technologies to create this fiefdom, so as to be able to collect cloud rents. So whenever you buy something on Amazon.com, you pay 40% to Jeff Bezos. That is a form of rent. It's a cloud rent.

The fundamental difference between feudalism and technofeudalism is that under feudalism, you didn't need to do anything in order to have that right to charge rent, to extract rent. All you had to do was to be born in the right family. But under technofeudalism, because it's based on a kind of supernova capital – cloud capital – the cloudalists are this new ruling class, as I call them. They are investors of huge quantities of money in cloud capital, which, however, then allows them to destroy both markets and profit, and to replace them by cloud fees and cloud rents.

And that is macroeconomically significant as well. Hugely significant, because when you have so many rents being extracted from the secular flow of income, that creates greater instability in terms of aggregate demand efficiencies. And it creates huge geopolitical clashes like the one we are watching and witnessing between the West, primarily the United States of America – and China.

**Michel Zouboulakis:** OK, let's speak a little more about this cloud capital and how it differs from previous forms of capital. For example, who's the owner of this cloud capital? Is it a person or a consortium? An enterprise? And a secondary question to that: what is the role of the state in this form of cloud capital? You say a lot in the book about the role of the state in issuing money in order to help this capital to rise.

**Yanis Varoufakis:** OK, first: what is the difference between cloud capital and terrestrial capital – standard conventional capital? Two fundamental differences. Capital goods, as we've been teaching our students for yonks now, are produced means of production. Cloud capital is a produced means of behavioural modification. So TikTok, Google, Uber and so on, they're not producing anything. They are automated systems. In other words, they produce means for altering our behaviour.

Now, behavioural modification is as old as humanity. From, you know, Homer, the priests, the great poets, politicians, advertisers; they've always tried to modify our behaviour, but these were human beings. Now we have automated systems which enter into a dialectical relationship with us. It's not like an advertisement that speaks to you in one way, in a one dimensional, one directional way. You know, of the kind where there are people there and they convince you to buy a car and that's it. Now you have a dialectical relationship. You are talking to the machine. You are training the machine to train you to train the machine, to train you, to train the machine, ad infinitum, for you to want something. And at the same time, the same machine, the same algorithmic capital, sells it to you. So it's not producing anything, but it is a remarkable, produced means of modifying your behaviour. That's the first difference with terrestrial capital.

The second difference is that for the first time in the history of capital accumulation, cloud capital does not necessarily need waged labour in order to accumulate. So a steam engine, an industrial robot, an electricity grid, require waged labour to be produced. But the capital stock of Twitter, of TikTok, of Uber, of Google – that increases by what *you* do, as a user. You don't even realise that you are producing free labour that is replenishing and accumulating cloud capital on behalf of the owner. So every time you go on your phone, that increases the capital stock of Google because the Google Maps application knows where you are and improves its capacity to

predict traffic jams. And therefore it improves its capacity to attract users. So you are contributing directly as a user, as a consumer – you're not a consumer, you're a user really. I call these people – us! – “cloud serfs” to go together with the technofeudal narrative. You're creating capital. That has never happened before in the history of capitalism.

So these are two major differences. Now, who owns them? Well, that is no different to monopoly capitalism, say in the same way that Thomas Edison, you know, owned shares in his enterprises. But of course, he owned most of the shares. And they are no different from enterprises like Henry Ford's, like, you know, Westinghouse, like these people. Similarly, you've got the owners of cloud capital, call them “cloudalists”, like Jeff Bezos, like Elon Musk, like Mark Zuckerberg.

And finally you mentioned the State. To begin with, you alluded to my hypothesis that it was after 2008 – or 2009 to be more precise – that quantitative easing began at a massive scale, especially after April 2009. There was that meeting in London between the G7, government heads and central bank heads, which unleashed, in my estimation, \$35 trillion between 2009 and 2022.

Now, don't get me wrong, there is no conspiracy here. I'm not saying that these central bankers printed this money to give to the cloudalists to build up their cloud capital. No, that's not what they did. They were panicking. The political leadership of the G7 proved cowardly and weak and effectively surrendered in front of the tsunami of bankruptcies that started the financial sector collapse in 2008. Effectively all they did was to impose austerity on the peoples of Europe and the United States. But they unleashed the central bankers – they said: Print as much money as you need. So they printed \$35 trillion. And they refloated finance.

Now, we know how central banking works. You can't just print money and spread it using a helicopter – the Milton Friedman idea. I wish they could, that would have been much better than what they did. Because their charter, their rule book imposes upon the Fed, the ECB, the Bank of England, but not Bank of Switzerland, and so on – imposes upon them that they should give it to the banks in exchange for paper; bonds and mortgages and all sorts of worthless pieces of paper, entitling the owners of that piece of paper to some kind of asset. And the idea was that the banks would then lend it on to business, and business would create jobs and that would help the North Atlantic capitalistic economy to recover.

But of course, because of austerity being practiced everywhere, dampening aggregate demand, the bankers looked around to see small, middle sized businesses struggling, households struggling. As if they were going to give them the money. So they gave it to big business. Now big business was also in the same predicament – Volkswagen, CTS, Aston, Rolls Royce, looked at people out there and saw that these people did not have the purchasing power. So they decided: we're not going to invest the money. Even though they took the money! So they took the money and they took it to the Stock Exchange and they bought back their own shares. So their shares went up, their bonuses went up. Everybody was happy amongst the board of directors. But of course that was wasted resources. The only capitalists who invested that money were the Zuckerbergs and the Bezoses – the cloudalists, who took this money and pressed it into the service of building up cloud capital. And once they did that, they acquired gigantic economic and political and social power over the rest of society, including the state.

I was talking to somebody, one of the founders of Facebook. McNamee is his name. He confirmed that nine out of \$10 that were spent on cloud capital by Facebook – Meta – came from central bank money.

**Michel Zouboulakis:** OK, so if this cloud capital was the result of the 2008–9 crisis, and then it changed the monetary policy, doesn't this confirm Hyman Minsky's central argument that in times of crisis the Central Bank as lender of last resort, accepts all kinds of new instruments to stabilise the market? But, by the same token, that it also creates the basis for more bubbles and instability?

**Yanis Varoufakis:** Absolutely.

**Michel Zouboulakis:** So what is new here? Isn't this something that was already described by Minsky in the 1980s?

**Yanis Varoufakis:** Yes, but Minsky came up with a financial cycle idea. So stability brings instability which then creates bankruptcy, which then creates stability, which then again breeds instability, and so on and so forth. In the same way that in the case of Marx, the falling rate of profit caused a recession, which then boosted the profit rate, and that gave rise to another period of falling rate of profit, and so on. It's the same way that for Keynes, the indeterminacy of aggregate demand led to these periodic crises.

But in all these three thinkers – Marx, Keynes and Minsky – what you have is a sine wave, but the underlying economy doesn't change. The structure of the underlying mode of production doesn't change. Here's my hypothesis: the underlying mode of production changed. So it's not just that you had a sine wave, but you also had a fundamental, profound transformation of the structure of the economy towards rents, away from profits, towards fiefdoms, away from markets, and with the secular – not periodic but *secular* – reduction in aggregate demand as more rents are being extracted from the economy. So, I think that yes, from our traditional political economy, Marx, Keynes and Minsky were vindicated by the events of the last 15 years. But I would also add Thorstein Veblen to this, and his particular take on the disequilibrium aspects of the economy and his own understanding of how our perspective on value is constantly under threat and in flux.

All this of course foundered, in my view, on the revolutionary role that this new form of capital has played in shattering the basic pylons of capitalism.

**Michel Zouboulakis:** I found this idea very attractive and I very much liked in your book the fact that you insist so much on the material conditions of these changes. But, is it not an overstatement to emphasise the revolutionary character of cloud capital? For example, if cloud capitalism is based on rent and not on profits, do you have any idea of what share of GDP rent is, for example, in some countries or in the world? In other words, do you have any proof that rent is more important than profit?

**Yanis Varoufakis:** Well, you see the problem is that we don't have the data. There's no statistical service anywhere in the world which has the capacity or the interest to discriminate between cloud rent and profit. So take a company like Microsoft. We know what the official – *official* – turnover is; we know what its net income is. We know that Microsoft produces machinery, so that's a

standard capitalist profit driven thing. But it also builds up cloud services which extract gigantic rents from everyone, including governments, the National Health Service in Britain, and so on. But there's absolutely no way statistically to know what the percentage is. So you have to go on the basis of instinct – instinctually to move.

My estimation is that in countries like the United States, Sweden and South Korea, you're already pushing the barrier of 30% of GDP as cloud rents. And it's not just the proportion of GDP. It is the rate of change in respect of different compartments within GDP. So the dynamic part of growth – of wealth growth, of income growth – is cloud rent.

And I think that becomes far more evident in developing countries. If you go to Kenya, if you go to Malaysia, to Indonesia, you'll find that cloud capital is growing much faster than any other kind of capital. I was astounded – and I mentioned this in the book – that in Indonesia you have three and a half million kiosks over ruins – like *periptera* here in Greece – now purchased by cloudalist companies. And they use them for the purposes of micro credit, for the purposes of digitising the markets in the vicinity of these poor neighbourhoods. So if cloud capital has already managed to penetrate the alleyways and byways of Indonesia and Kenya, then we are already very deeply within the technofeudal phase. It's not something that will happen. It *has* happened.

**Michel Zouboulakis:** So even the measurement of GDP is problematic because it is underestimated, after all? Our world GDP is far bigger than we know?

**Yanis Varoufakis:** Yeah, we know how bad GDP is at telling us anything, not just in this regard. National accounts have never managed to distinguish between profit and rent, well before cloud rent came along.

**Michel Zouboulakis:** So I have two more questions. How does this new phase, this new mode of production you have called technofeudalism, affects our understanding of the economic phenomenon? Do we need a new economic theory to deal with this new mode of production?

**Yanis Varoufakis:** Well, we needed a new economic theory to deal with capitalism, because, let's face it, the ones we had were not fit for purpose! So we constantly need to update our understanding. Look, I am an unreconstructed Marxist – the early Marx in particular when it comes to understanding the manner in which the advancement of means of production – the technological revolutions – eventually bring you to conflict. The conflict between our means of production, the state of advancement of our means of production, and our social relations with production. And that rupture not only changes society, but changes our way of understanding society. For me, economics was never a science. It was always a struggle to keep up with what was going on in the social economy. What I find fascinating, both as a thinker and as a teacher, is this: how do you tell the story of the development of the forces of production, the evolution of capital on the one hand, and the evolution of our ideas about the economy? So economic theory always plays catch up. And it never succeeds. That is not going to change.

**Michel Zouboulakis:** Yes. Speaking of teaching, my last question is: what should we change in the way we teach economics after all these new developments?

**Yanis Varoufakis:** I'm not going to give you an answer that's different to what I would have answered twenty years ago, well before technofeudalism. For me, the worst development in economic education began in the middle of the 19th century when we started behaving as if we were physicists, as if we were natural scientists trying to evince the truth about capitalism from solvable mathematical models. The moment we started doing that we lost our capacity to say anything useful about capitalism, even to recognise capitalism, to recognise the reality in which we find ourselves. So for me, what a proper economic education must involve is this parallel narrative. Economic history on the one hand – what has been happening on the ground, changes in the way in which we are producing things, and the social relations of production and distribution – and how those changes have been affecting our theories and our models of this economic history. To try to abstract from that and create a textbook like Mankiw, whereby all the truths about capitalism, or indeed even the schemas of reproduction by Marx, where everything can be reduced to some kind of system of equation that can be solved: that is a major disservice to society and to our students.

**Michel Zouboulakis:** Thank you very much, Yanis. It was a great pleasure to talk to you.

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