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Host:

- **Steve Odland**, CEO of The Conference Board, a non-profit business membership and research organisation based in New York (SO)

Guests:

- **Bart van Ark**, Managing Director of The Productivity Institute and Professor of Productivity Studies at The University of Manchester (BvA)

**BvA:** Hello and welcome to the 16th episode of Productivity Puzzles, your podcast series on productivity brought to you by The Productivity Institute and sponsored by Capita.

I'm Bart van Ark, and I am a professor of productivity studies at the University of Manchester and a Director of The Productivity Institute, a UK wide research body on "all-things productivity" in the UK and beyond.

Today's podcast on global productivity and whether it can rescue the economic recovery is co-produced with The Conference Board, a global business think tank headquartered in New York. Over the past 15 years The Conference Board has maintained productivity metrics for as many as 125 countries, which have recently been updated. So, this a good time for a conversation with The Conference Board's CEO and president, Steve Odland on what we can learn in terms of the impact of, for example, the pandemic, labour and supply chain shortages and the slowdown in globalization. Please listen to this joint production with The Conference Board.

**SO:** I'm Steve Odland, the CEO of the Conference Board, and in today's conversation, we will discuss productivity. It's a topic with many facets that come down to a simple question. Are economies making the most of their human and material resources? Through most of modern history, we've assumed that progress in technology and efficiency will make every person employed and our work more productive over time. Is this a hopeful trend? Is it still holding true? Will it hold true throughout the 21st Century? So joining me today is Dr. Bart van Ark, the Managing Director of The Productivity Institute, which is headquartered at The University of Manchester, he's also the anchor to The Productivity Institute's podcast series, Productivity Puzzles. Bart, obviously, is no stranger to the Conference Board. He has been our Chief Economist for many years and it's great to have him back. Bart, welcome to the programme.

**BvA:** Thank you, Steven, also, my welcome to Conference Board listeners and productivity listeners; really looking forward to this conversation.

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SO: So, Bart, you know, you are a globally recognized expert on productivity, let's just start with what is productivity? And, you know, why have you chosen to focus on this as your specialty?

BvA: Oh, well, we could spend probably our whole podcast on that - what it is and why it is important - but we'll try to do it short and brief. So economists have a pretty clear cut definition of productivity, which is some sort of measure of output per hour worked or output per worker; output quite often measured as GDP, as gross domestic product. And then you can make this more refined, and you can say, well, we're not looking only at what we produce per worker, or per hour, but we also look at what the contribution of machines and technology and so on. If we take that into account, we have a concept we call total factor productivity. So that's the economics concept.

From a business perspective, it's quite different. To be honest, you know, productivity is actually not a kind of indicator that is daily discussion in the boardroom, or that is a key performance indicator. But within the business, people use different metrics. I mean, you know, people on the operation side will use some kind of efficiency metric quite often linked to particular parts of the product process. CFOs will look more sort of a cost efficiency. So how efficient are we using our materials and people and everything else? And then human resource leaders will, of course, look more at what is sort of the engagement of workers? Are they're happy workers? And does that help them to also make them more productive people in the company? So all these perspectives are important. And when you ask me "why do I think this is so interesting?", it's actually trying to bring these various perspectives together, because I think we quite often are missing the sort of narrative around productivity because we speak in a slightly different language. So one thing that we're doing in The Productivity Institute is try to bring these narratives together, so that we understand how we can use our resources in a better way to get more outcomes.

SO: Yeah, so basically, what you're saying is there are human resources and then there are capital investments, you know, whether it's machinery or other forms of resources within an organisation. So it's all of those invested resources that produce things, whether it's services, or goods, and that's what productivity is. And so, you know, now help us connect productivity to GDP and the output of an economy.

BvA: So that's a great question. In fact, Nobel Prize winner Paul Krugman once said, productivity isn't everything. But in the long run, it's almost everything. And he was right to quite some extent that productivity tends to be a concept for sort of longer-term economic growth. But on the other hand, it also puts us a little bit on the wrong foot, because productivity can actually be really challenging in the short term. And we only have to look at what is happening today with rising cost issues and all sorts of digital technologies coming around, and then we just coming out of this COVID crisis.

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So in the short term, productivity can really help because, if you have rising costs in your organisation, you have two options, right? You can either pass that cost on to your customer, or you can improve your cost per unit of output, and improving your cost per unit of output is essentially just productivity growth. So what we do think is, when you bring these two things together, that productivity is a long term concept, but you can use it well in the short term. That is, as an organisation, you really need to invest in sort of that longer term productivity path in order to be able to deal with short term challenges as you're facing them. And I think right now, we're at a time that organisations that have worked on productivity, that have are digitally transformed, they've got the right process in place, are much more agile, much more resilient, to respond to the challenges that are facing in the short run.

SO: So when you take it to a national level, it's really a collection of all the businesses or all the output that is coming out of an economy. And so what I hear you saying is that if you can get more output from the same investment, and the same human capital, that would be additive to the GDP.

BvA: Yeah, absolutely. It's that investment – it's the human capital. There's also another concept that I think is very important here and that is what we call sometimes the intangible parts of the economy. It's a digital part of an organisation, it's the management competencies in an organisation, it's the way that we are investing in organisational competence in an organisation, and all these things are coming together. And if all organisations do this well, in an economy, it will definitely pay off in terms of the macro-economic growth performance.

SO: Yeah, and if you don't get that productivity, essentially, you have to scale all of the investments, you know, and it takes more and more capital to drive the GDP growth. So you really do want to see efficiency come into play here. But there's also the government that plays a role, not just, you know, not just the private sector, it's government policy that helps to influence productivity. Can you talk about that?

BvA: Yeah, government is actually really important in two ways. One, of course, is of course, that government can facilitate and can improve the conditions under which private organisations can become more productive. But government itself can also become more productive. So let's start on the first one of how can government can help. The kind of basic functions that we all know about, right? I mean, you want government to make sure that we have a good education system so that we can get a skilled workforce; you want government to make sure that there are investments being made in infrastructure, whether it's roads and bridges, or whether it is digital infrastructure and access to broadband. You also want government to make sure that they put the right regulations in place. By the right regulations, I mean, regulations that help to actually use the resources in the most productive way.

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So you want to have regulations that avoid putting resources where they're not going to be very productive. So government can help to facilitate all that. But beyond those basic functions, government can actually be a little bit more interventionist. And we have seen that, for example, so in the US, where the US actually invested quite substantially in technology programmes, like the space programme and defence programme, and that set off a whole lot of new inventions and technologies across the economy. So the government can play an important role there. And the government can also help to diffuse the technology better. So for example, when governments help to create what we sometimes call regional ecosystems, where business and government and schools and education come together, in order to make sure that they use the resources as good as possible on the ground. So those are facilitating roles for governments. Then, of course, government is a big part of the economy, right?

So that's the other element of it. And, you know, the government, therefore, also can do a lot about productivity itself. And we don't always think that government is very productive; it's very bureaucratic, things tend to be slow. But if government would make good use of digital transformation, for example, and digital technologies, that can massively improve the productivity compared to what we're doing today.

SO: So basically, you know, most economists say that it's less efficient to take dollars out of the private sector, out of the economy, and have government redeploy it. But I think what I hear you saying is that there are some investments... when you know, when you use tax dollars that are raised that are beneficial for the economy as a whole, and things like, you know, infrastructure capacity, and that's something the US saw in the 1980s, where they grew the capacity of their roads, their bridges, their infrastructure, their rail, and so forth. And it, you know, really facilitated GDP growth for the next 20 years. And then also, you're talking about basic R&D, Research and Development, which then can be shared more broadly. So those are ways... but just say a few more words about regulation, because this is a place where, you know, there's some regulation that can be productive, but there's also some regulation that can hurt right?

BvA: Oh, absolutely. I mean, regulation can absolutely hurt if it makes it more difficult for businesses to get things done. So this is particular, for example, if you want to start up a business, and then you're confronted with all sorts of regulations you need to fulfil to just start up the business. Now some of that can be good because you want to make sure that the quality of the service or the goods that are provided are of a sufficient nature, but quite often it is more to do with, you know, red tape and paperwork. So that's an example of a place where government doesn't help.

However, where government can absolutely help is regulations, for example, that make it easier for businesses to get together to collaborate in particular areas. And government can also regulate to make sure that, for example, the digital economy is working better and that no abuse is

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being made of digital platforms and so on and the competition area, the government has an important role to play to make sure that we continue to compete and that not some firms sort of, you know, get such high concentration effects that are making profits that are not in line with the actual investments that they are making in an economy.

So as I say, for me, from a productivity perspective, regulation is really about making sure that the resources in economy - people, investments, capital - get allocated to those firms, and to those industries where they create most productivity.

SO: Yeah. Now, you know, you and I have talked in the past about certain eras where productivity was very contributory to GDP growth. And I think, you know, we've talked about the 1990s, generally, as a period of time where I think, you know, you said in the past that it's contributed almost 100 basis points worth of growth. What was it about that era, you know, where you saw, you know, productivity really helping to drive GDP, what was it about it that created that productivity? And then why did that go away?

BvA: Yeah, so productivity is not kind of a constant linear trend, it's something that really has periods during which it accelerates and periods during which it slows down. And a lot of that tends to be related to sort of a new family or a new group of technologies coming together to create a lot of new opportunities for businesses to innovate. So, for example, if you think in terms of industrial revolutions, there's, you know, some people saying, we are now today living in what we call the Fourth Industrial Revolution, which is the digital age. And, you know, and that it has characteristics that we have seen in previous industrial revolutions, which means, again, technology comes along or and they create a lot of sort of new additional technologies that are happening, and firms slowly start to invest in this because, in first instance, they don't necessarily see the opportunities. There may be some pioneering firms that are taking some advantages, but the diffusion of technology is relatively slow. However, if this further advances, then these technologies start to spread across the economy. So you get a sort of a much greater diffusion of the technology. And once that happens, many more companies are going to benefit, you then also see that, you know, instead of you know, new technologies, replacing labour, we actually need new labour in order to move these technologies to the next stage.

So labour and capital, what we then call as economists, becomes much more complementary. And I think it's really interesting to think about this today, because I think we're in this time living now that we see a lot of new technologies coming around, but they seem to still be very concentrated in, you know, the digital sector itself or in very large, well performing firms. But the diffusion of the economy towards small- and medium-sized enterprises is still problematic. So we're sort of at a tipping point in technology, in which we still need to see the productivity growth from digital technology to spread across the economy.

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SO: So the 1990s were a bit of an anomaly in a way, because you had this, as you say, diffusion of technology, meaning there was a widespread adoption of the use of personal computers and created a great amount of efficiency with the same amount of labour and, you know, relatively inexpensive technology. So that, you know, that was a great driver during that period of time. He didn't...

BvA: I quite often like to talk about sort of the old digital economy and the new digital economy. So the old digital economy is exactly what you just mentioned - the rise that we see at the beginning of the internet that diffused very rapidly. But there are new digital technologies, AI and deep learning technologies, that are much harder for companies to adopt and we still need to see the productivity effects from that.

SO: Yeah, well let's come back to that. You've done a great job, Bart, of setting the stage for our listeners on what productivity is and the factors that go into productivity. After the short break, we'll wind back the clock to the present and discuss where productivity is today. Take a short break and be right back.

[Advert plays]

SO: Welcome back to CEO Perspectives. I'm your host, Steve Odland, the CEO of the Conference Board, and I'm joined today by our former Chief Economist, Bart van Ark. Bart is now the Managing Director of The Productivity Institute at The University of Manchester. So Bart, what are we seeing today in terms of productivity, you know, what are the latest numbers and what's driving it?

BvA: Yeah, the timing for this conversation is great, Steve, because the Conference Board is actually one of the main providers of global productivity numbers, and I was happy to be part of that myself, but also even more happy that it's continued. And actually just a couple of days ago, the latest numbers were being released. And as great as that is, what we actually saw on the numbers is actually a little bit more worrying, because we have really been seeing that, you know, this long-term slowdown of productivity had temporarily stopped during the COVID crisis, but it is a risk that that slowdown will continue, now that we're getting out of the COVID crisis. So just to give you an idea, I mean, globally, productivity output per hour grew by just over 3% in the beginning of the century, it slowed down in the past decade to about 2%. It then quickly picked up during the COVID crisis, really because we shut down less productive sectors of the economy, like hotels and accommodation. So you know, you have a lot of people in the room - you send the shortest people out, and then you know, the average goes up, but nobody gets larger. And these people, these sectors came back into the room and productivity started to continue to slow.

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So that's what we're seeing globally, also, in the United States you see the same thing. You know, productivity growth slowed from 2%, to about 1% in the past decade, and it just picked up in 2020. But then it started to slow again. And this is really very timely, because now that we're in this sort of new phase where we're seeing supply shortages and rising costs, the question really is whether that slowing trend is actually standing in the way of responding to these kinds of challenges, or whether you know, digital transformation, to the extent that has continued during the COVID crisis, will put it in a better position to deal with it.

SO: I'm still trying to conceptualise sending the shortest people out of the room to drive productivity. But that might be a new concept from Dr Bart van Ark. Okay, so you know, the cost of labour and the supply of labour has been talked about a lot recently, you know, we have a bit of a labour shortage right now, because of retirements, because of people who have taken themselves out of the market due to COVID or other reasons. How does the supply and the cost of labour interact with productivity?

BvA: So we need to step back a little bit there, because it's important how we ended up in the situation of global supply chain disruptions and shortages. And the reason we ended up with this is that we've had, you know, several decades of a massive globalisation that really led to this, what we call fragmentation of production processes around the world. So we're seeking lower costs in emerging markets. And we really developed an art of, you know, breaking up the supply chain, so that we could produce most cost efficient in different places in the world. Now, already, in the past decade, we saw that sort of productivity gains, which were massive, were gradually beginning to come to an end. You can't do this forever; at some time you get to a point that you can't sort of refine that art further. So we already had some concern about the fact that that wasn't going to continue to be a driver of further productivity gains, then COVID hit so we got supply chain disruptions simply because ships couldn't move around the world. And now we see rising costs and other kinds of the disruptions also from the global political uncertainty that we're facing, because of the war in Ukraine and everything else.

And that is that is... now we're really beginning to see that the supply chains are actually critical for us in order to avoid productivity not to decline further. So we now need to begin to address this. And the response to this, of course, is to say, well, let's make sure that we reassure more activity that we build these domestic supply chains, but that's something that's not going to be very rapid, that will take a significant amount of time, before we get done.

So I think for the time being, the supply chain disruptions are going to be a downer for productivity growth. But we need to, again, use technology, think very hard about how we can rebuild the supply chains in a more resilient way, in order to be better able to deal with this kind of crisis in the future.

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SO: And so the simple, you know, rebuilding of the supply chain, you know, absorbs capital and attention and focus. And so therefore, you don't get - that that's what you're saying - you don't get the productivity gains from that. But there is this, you know, this sort of thing that some economists have talked about that, if there is less labour available, and so companies can't get as much labour, but they're still producing the same amount of output with less labour - is that a sustainable thing? Or are companies just trying to, you know, trying to eke by, you know, with this labour shortage?

BvA: No, I don't think you can do if labour shortages forever, because even if you invest in digital transformation and automation, you know, let's just make it simple and invest in sort of more machines. Let's not get the digital in. But if you would just say let's have more machinery, and that will help us to substitute for all that labour. What we're missing there is that technology is actually changing very quickly. And, therefore, we need to have the right competencies and the right skills in that workforce. And the idea that that is just available or that we can just set it aside, then the machines will do everything for us, that will not work. So we really need to look at labour and capital together, particularly when it comes to the deployment of these new technologies.

SO: So simply a labour shortage that may, you know, then companies may eke by, you know, for what, you know, doing overtime or whatever, that's not a sustainable means of driving productivity. So what I hear you saying that is, you know, it does come back to some level of automation and digital transformation, which, of course, has been going on a long time. You know, is that it? I mean, should we just put a bow on it and say, "it's all due to automation and digital transformation, and nothing more?"

BvA: Well, when you say it's all just about digital transformation, just about digitalisation, and not much more, I would say, well, digital transformation is actually really difficult and very complex. So, what quite often happens is that we confuse digitalisation with digital transformation. So digitalisation basically means you use new technologies in order to digitise processes. But digital transformation - we actually did a lot of work on that at the time at the Conference Board and our former colleague, Mary Young, once defined this very clearly - digital transformation is a process by which you leverage these technologies and data that are produced to connect organisations, to connect people, to connect physical assets and processes. And if you think about that, if you think about what connection, you would see what a complex process this is actually going to be. I think one of the reasons why digital transformation is not yet paying itself out in productivity growth is because it is so complicated.

So it's certainly not just digital technologies; organisations need to really rethink their business process, they need to rethink the markets they're operating in, they need to rethink how they're going to collaborate with partners, because quite often, you can't do these big projects on your own. You need to think how you're going to reconnect to your supply chains, as



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we discussed a little earlier. So it's not just digitisation, actually, you really have to pull out blocks in order to deal with the skills of your workforce, in order to deal with the innovations that you bring into your organisation and the competencies of the organisation and the way you want to change that.

SO: So if you go back up to 30,000 feet, and you go really macro to a global, you know, total global productivity, does globalisation, meaning, you know, leveraging, you know, resources in the most efficient parts of the world and so forth and connecting the supply chains. Is that a good way to drive productivity?

BvA: Well, globalisation has definitely helped a lot to accelerate productivity growth during the 1990s, and the beginning of the 21st century, I mean, it was a big deal. And, and it was not just China, but also the rest of the world. But as we discussed a little earlier, you can't continue to refine that technique forever. At some point, you need to think about how your own domestic supply chains and your domestic infrastructure of people and technologies and innovations are going to feed into this. And I think that's the point where we are; that we need to think how we're going to keep that globalisation train going. But at the same time, also make sure that our domestic capabilities are strong enough to build...

SO: And that's influenced, as you said, by the geopolitical considerations. But if, you know, if you had peacetime everywhere and everybody getting along, and all of that, you know, you would sense that that would be a good, productive way to drive trade.

BvA: Yeah. And just to be clear, I think when I talk about the challenges, I'm not saying that we are actually getting de-globalisation, that would actually make it worse. It's just the fact that globalisation is at the point where it's actually optimised, and we are now at the risk of the supply chain disruptions that is really going downhill. That's exactly what you want to avoid. You want to keep that optimal globalisation system.

SO: Yeah, and when we're optimised, given a certain, you know, a certain set of geopolitical considerations. Last question, you know, COVID, inflation, climate change, all of these things are upon us right now, what impact is all of that have on productivity?

BvA: Yeah, so as we discussed earlier, we're in a really interesting time, between this installation phase, where we put all these new technologies in place, and the deployment phase, where we need to sort of diffuse them and use them much more extensively across the economy. The point is that that transition is usually not smooth.

What the literature says about this is basically that quite often that transition from installation to deployment or from, you know, a few firms benefiting from this through the entire economy benefiting from it, usually goes with some kind of frenzy period that is followed by some kind of crises. That's

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what you would usually think to happen. Now, we're not short of crises right now. So you might actually say, well, this is the right opportunity for this. In fact, I did think at the time that the global financial crisis was giving us that opportunity already, but I was wrong. Because I think what happened after the global financial crisis, is that we entered in a period of low interest rates and massive liquidity, and that didn't help at all. I mean, you think that low interest rates are going to help investment and productivity, but as a matter of fact, that led to a lot of misallocation - actually a drop in productivity.

So we missed that opportunity and actually made it even more difficult to make the change now. I think now we're at the point with COVID - and then coming out of COVID - where we actually had a lot of digital transformation happening, can we sustain that? But also, if the green innovation agenda or the transition to net zero that many countries, for example in Europe, where I'm at right now, there's a lot of attention for this green transition agenda. Well, that is a moment that's almost comparable with the space programme or the defence programme, where you see a lot of things now need to come together in terms of different types of energy use, new technologies, new ways of innovating, new ways of collaborating. That could give us that productivity gain.

So the question is, to what extent can we use these kind of tipping points in a crisis to grow productivity? And to come back to what we discussed a little bit earlier, looking at the numbers, it doesn't look very good at the moment when we look at the numbers. And I think a lot of that has to do with the fact that our policies are not quite the right ones to deal with this kind of transition, right? So we need to think about new regulatory environments for competition. We need to think about new tax rules. We need to think about new ways of innovating across the economy. And I don't think that our policies are quite ready for that new digital age.

SO: Well, there's also the transition costs in and of themselves, you know, in the interim...

BvA: They're very high, yeah. It always takes a long time, but it can just take longer than it has to, And that's, I think what I'm a little bit worried about.

SO: Yeah, very well said. Dr. Bark van Ark. Thanks for joining us today.

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BvA: Thank you for joining and goodbye to both Conference Board and productivity listeners.

[Music plays]

BvA: Our next episode of Productivity Puzzles will be on productivity in the public sector of the economy. Building on an earlier podcast on practical productivity in the private sector, The Productivity Institute has undertaken a synthesis study of what we know about managing productivity in government, education and health care. On the basis of this recent work,



## Ep. 16 Productivity Puzzles podcast transcript

### Can productivity rescue the global economic recovery?

I'll have a conversation with Paul Abraham of Capita, which has financially supported this work, Stephen Aldridge, Chief Economist at the Department for Levelling Up, Housing and Communities and a lead on the government's Public Sector Efficiency Group, and Anna Smart, Systems Thinking & Organisational Design Lead at the London Borough of Camden.

You can sign up for the entire Productivity Puzzles series through your favourite platform to make sure you also don't miss any other future episodes. If you'd like to find out more about upcoming shows or any other work by The Productivity Institute, please visit our website at [productivity.ac.uk](http://productivity.ac.uk) or follow us on Twitter and LinkedIn.

Productivity Puzzles was brought to you by The Productivity Institute and sponsored by Capita. And this was me again, Bart van Ark at The Productivity Institute. Thanks for listening and stay productive!

**End of transcript**