

What should the UK learn from “Bidenomics”? Appendix: Full transcripts

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Interview with Adam Posen (President of the Peterson Institute for International Economics)

Adam Posen has been President of the Peterson Institute for International Economics since 2013. He was a member of the Bank of England's Monetary Policy Committee, 2009-12

Interview conducted 16th January 2025

Q. How would you characterise Bidenomics - what do you think its objectives were and how did it perform over four years?

I characterise Bidenomics as wishfully wrong, motivated by a very elitist view of politics despite all their inveighing against our common friends. To the degree that there was coherence to Bidenomics, it wasn't what Treasury or the Council of Economic Advisers were doing on macro. That was just the small amount of policy that they were allowed to do. The mainstream of Bidenomics was led by the NSC, USTR, and others. Built on completely false premises, both economically and politically - that they wanted to be true.

I'll get to the content in a second. But, in my view, the people who lost the Hilary Clinton campaign in 2016 - which obviously I was devastated by as well, given the alternative - could not accept that part of the reason they lost was because Clinton was an unattractive candidate. Part of the reason they lost was because Clinton was perceived, with some justification, as a warmonger. People underestimate how much Trump being seen as not trying to get our boys and girls into new battles mattered - not in Syria, Libya or wherever. So, they had to figure out something and they resented the Clinton-Obama economics crowd lecturing them and then being cut out of economic decisions.

They reverse-engineered this policy program labelled "trade policy for the middle class" or "building up and out from the middle class," which basically meant doing nothing that required real legislation from Congress, nothing fiscally except spending more than the neoliberals said we could. It pandered to anti-China, anti-migrant, and anti-foreigner sentiment, and any benefits would take years to accrue or could be blamed on foreigners if they failed. They slapped an advertising label on these policies to fit those criteria. But underneath it all was a fundamentally flawed worldview.

They believed that macroeconomic and capital flow constraints didn't exist and were just a wilful imposition by the neoliberals. They believed that other countries' cheating - possibly China and no other country with any credible concerns - was having a material negative effect on the US. They believed that, whether for political or economic reasons, it was both useful and possible to try to pump up manufacturing employment. They believed they could bully Taiwan into moving production into the US, with no push back

and no side effects. They bought, because they sincerely believed it and because it gave them hopes of political advantage, that there was this vast number of Americans who were suffering in towns and small cities that were being devastated. This world view is fundamentally untrue.

It doesn't mean those people suffering shouldn't be helped more than they now are but it's just not the experience of the vast majority of Americans. Or rather, the young people, the skilled people, the healthy people have made the adjustment. So, you end up with local communities where some people are left behind. But this was a lie about the economy as a whole, a lie about its causes – in addition to its being a political dead end to think that pandering to those complaints and the anger that goes with it was going to lead to good results. So, it was a completely flawed and failed policy in every sense.

Q. If as you say a lot of this was politically rather than economically grounded, how would you then reconcile that with the economic outcomes that we saw during the Biden administration?

Let me give you a bit of nuance on that before I directly address your question. In the end, if you want to do a bunch of policies for political reasons, what matters is whether you win or not. They thought they were being clever, they thought they could buy off specific constituencies through performative actions and rhetoric. They thought they could get votes. All the polling evidence and all the actual voting evidence is that people were not voting on the basis of what they thought they were voting on. They were not responding to these supposed purchases of goodwill.

On the economics, they made the choice not to say: we have more progressive values than the neoliberals or the Trump people and therefore we are going to redistribute or prioritise differently. They chose to say: we do not accept the constraints or unintended consequences that are economic realities. So, it wasn't just politics versus economics. It was not taking into account economic realities that ultimately undercut them.

Which gets us to why I think the US has done better. I think three things happened for the US to explain its out-performance compared to comparable OECD countries. The first and fundamental one is that, completely unintentionally and unexpectedly by anyone, the disruption of the labour market through Covid actually reallocated workers in an extremely efficient way. There was a very serious discussion about this in 2020: do you want to have for a lot of programmes subsidies, wage subsidies, keep people tied to their current jobs assuming that Covid is going to be temporary and we don't want to put people through the misery of additional unemployment and churn and then they lose firm-specific human capital? They may lose seniority and other things that they don't want. Therefore, the UK, Germany and France, everyone in Europe and to some degree Japan, Canada, Australia put in programmes to soften the blow. I thought that was the right thing to do. There were just a few knee-jerk right-wingers who disagreed.

So, you end up with US unemployment rates spiking to 22% and no other advanced economy gets even a fraction of that rise. I, and a few others, have started focussing on the fact that this turned out to be surprisingly highly beneficial for lower income workers. What happened was millions of them in the US either moved to larger employers: think of moving from Joe's Diner to McDonalds or Pat's delivery service to Walmart. We know from long-standing data that the same worker generally tends to be much more productive in a larger company. Especially at the low skill or low pay end because then you have some possibility of more human capital around you, opportunities for training and advancement. You have more physical capital around you. It's more stable. There was this very large one-time shift of the order of 15% of the US workforce, of 10 million plus workers who had a sustained jump in productivity. You also had, not as big an effect, a continuing surge in new business formations.

The UK, Canada etc also had this surge of new business formation: initially when there's a recession, people try to create a side gig or company so that if they are unemployed, they have something. But what happened in the US, I don't think anybody fully understands this, I certainly don't. But for whatever reasons we have seen a sustained rise in the rate of creation of small new businesses. That is also pro-productivity. It's not wonderful for everybody - not all these [new businesses] become big companies. But, on average, if you have a bigger share of the workforce doing potentially entrepreneurial self-employment, it's not a bad thing. These are very chunky numbers - 2 million people.

So, we're talking somewhere between 10 and 15 million workers - 10% of the workforce - moves in a fundamental way to more productive jobs. Again, there's a clear difference from the rest of the advanced, high-income world. Everyone else quite reasonably didn't have this huge surge in unemployment and didn't allow the reallocation. One of the newest things we've found is that two other patterns have emerged. One is that while people moved between businesses, they didn't tend to move between industries. The vast majority, particularly of low-income workers who were forcibly unemployed or quit and then came back in, stayed within the same industry. That's why I gave the hypothetical of Joe's Diner to McDonalds. Interestingly this may be an indication that firm-specific human capital is less important than industry specific human capital or professional occupational human capital. If you think about the German labour market training model, that we were told in the early 1990s was supposed to be our model, that's also part of it: you do your apprenticeship in a firm, you don't necessarily stay with that firm but you stay in that industry.

This is not anti-Bidenomics. It's saying there was this whole other channel that no one saw coming that led to a two-to-three year run of higher productivity growth for a large number of workers. It's unintentional creative destruction for labour markets. And that along with a surge in migration allowed growth to occur without inflation.

Q. Is there any aspect of what you would call the Bidenomics strategy that was responsible for this labour reallocation?

First, there is some role for AI and platform IT companies adding to productivity. That probably does not explain a large share of the last 5-10 years. Second, we've seen another shift in the US. labour market. There are certain jobs for which you're supposed to have a BA to be qualified to do the job. We've found there's been a large surge in hiring of people with non-BA qualifications for BA jobs in the last few years. That again goes to the idea that running the economy this way led to creative destruction of artificial barriers, keeping people out of work.

Arguably, the most sensible part of the Bidenomics strategy is to run the economy hot, learning from what happened after the financial crisis. A bunch of us, including myself both in the UK and US, were saying, in 2008 thru 2012 that we should do more macro stimulus, don't be so constrained. Run the economy hot to try to push people back into employment and so when they try to get back into employment there are opportunities. That was right. Whether that was distinctively Biden versus Clinton or Obama, or just that every reasonable person in the world learnt a lesson from 2009-12, I do not know. The Fed clearly has shifted a lot under Jay Powell.

Some argue that there really was no demand driven overheating inflation. I think it is just wrong. It was a mistake that the American Rescue Plan in 2021 included Congressional promised payouts even to people on high incomes and didn't just focus on first responders in health and a short-term stimulus. To link it back to your fundamental question, which is how much Bidenomics was responsible, I think it's very misleading to do the charts that a lot of people do saying look inflation went up and down on the same path across countries. If original conditions and the nature of the economy are different, the idea that you ended up with the same inflation result doesn't say it's all driven by the same thing. We had a fraction of the energy shock Europe had and Europe was nowhere near the unemployment shock we had. So, the idea that inflation goes up and comes down the same way in both, that's just wrong! It is a fundamentally different process.

The broad bias that Bidenomics applied to monetary policy, but also short-term fiscal policy was that we were not going to repeat 2008-12. That was right. But that was also what basically every sane government thought. Even Steve Mnuchin under Trump was going to do something in terms of stimulus in 2020.

Q. Stripping out the US macroeconomic policy and the labour market adjustment, did other aspects of Bidenomics - the Inflation Reduction Act, the CHIPS Act and the Infrastructure Bill – contribute to US growth?

In terms of multi-year economic performance and the political backlash against inflation, everything else is secondary. But is it important? I think some reforms were positive and some were negative. Anything on the regulatory side that improved labour market bargaining power or improved enforcement and expectation of environmental regulations for the medium-term or that enhanced R&D and demand for tech in the US - all of those are on the positive side of the ledger.

And some of those are more Biden. The lack of ambition of Obama or Clinton on labour market regulation and bargaining power was a critique that I think was entirely fair and Biden genuinely tried to change that. Not being a climate change denier, which Trump of course is, and trying to make it credible that the US would do something green again, that was genuinely Biden.

Q. Would you say they were good for growth or the right thing to do anyway?

They were the right thing to do and mildly positive for growth. If they end up being a small negative, they could be more than an offset by other things. To me those fit under the heading of not denying economics but saying we have a different relative valuation of labour bargaining power or the relative valuation of climate and future generations. To me those were worth doing. How much they were distinctively Biden, I don't know. But they were definitely more progressive, more interventionist and I believe legitimately in a positive way more than what Obama had done. But I don't believe they moved the needle very much on growth.

Q. But are you more negative about the other aspects of Biden's industrial policy?

They put so much emphasis on the IRA and the CHIPS Act. They said it embodied the ideological programme that I set out at the start. Various people at the Treasury and other advisers tried to push back at parts of it. This part I think is just wrong - on intellectual grounds and I think it's been demonstrably wrong politically as well. Ultimately they were spending a huge amount of money - when there were other things you could have spent it on, including general R&D, educational training and so on - in order to make technology, particularly green technology, less accessible to everyone, the US and the rest of the world. They're restricting supply, they're putting restrictions on sales, they're increasing the price, they're telling people specifically not to buy from China. The end result of this is that the green transition has slowed because we don't have cheap solar panels. The rest of the world also doesn't have cheap solar panels because we're making them harder to get from China.

This cascades through a whole bunch of technology. It's a negative supply shock. In a new technology there's very large positive spillovers with its adoption. They had this notion they could calibrate various trade-offs. This was seen, obviously, in this careful ineffective calibration of the Russia oil price. This was seen in the decisions about how much subsidy was enough to get the Koreans or Taiwan's chips here, but not enough to overdo it. They completely missed the big picture.

To be fair, the Treasury and the CEA in the Biden administration, tried to express but failed to get any traction: if you're worried about supply chain exploitation and abuse of market power, what you want is diversification. So, if we don't want China to be the source of our pharmaceuticals - we can debate that - then it's good to have as many possible reliable sources outside of China and they don't have to be in the US.

What they didn't understand - as progressives they should understand – is that they are creating a 'too big to fail' moral hazard in these American based companies who then exploit it. Boeing, Intel, these companies are taking untold billions of subsidies, but they don't have any more loyalty to the US and to the American worker than their counterparts in banking did in 2006-2008. So, by advocating that you have to subsidise national champions, all you're doing is making it more likely that those protected domestic national champions get to exploit American workers and rip off American households and present the American taxpayers with a bill. I find this absolutely outrageous. The idea that the economics and law folks on the left, who were supposedly antitrust, didn't see the enormous damage they were doing by privileging and protecting these too big to fail American companies is awful. On the straight economics, this to me was a betrayal.

Q. Did industrial policy strategy have a regional place-based impact which was positive?

No. First, it didn't work politically or economically. We haven't seen a huge out-performance of the places that have benefited [from place-based policy]. Second, it shouldn't have been expected to work. I know that there are places in the UK that are still suffering 40 years on from the loss of shipbuilding, mining and the auto industry. The same can be said about part of eastern Germany, parts of southern Italy, not to mention parts of Appalachia and Midwest here. These are really sticky effects. I don't think we should give up trying to help the individuals there. But going in with any expectation that you're going to simply, by spending money, turn this around is for locations is, I think, contrary to all experience. Compensating the losers as such doesn't work either economically or politically. This is a huge gap in our policy understanding and we need new solutions. But the idea that this place-based stuff was going to work on any timeframe was just contrary to all evidence and experience.

Q. Part of the logic that the Biden administration was pursuing was if we onshore some of the manufacturing it might not lead to that many jobs, but it might actually lead to innovation in a more transformational sense then we're traditionally used to – not over 4 years but over 10?

Your characterisation is exactly right. The TSMC plant in Arizona has succeeded but some other projects haven't. We need really thorough micro studies about how many spillovers they have and what form of lottery ticket we need, how many losses on plants that don't work justify one that does work. I think that's all research that needs doing. But there is a very strong case that it's not going to move the needle in any meaningful macroeconomic trend impact.

Let's say we have Tesla, the TSMC plant and say batteries where we started producing some in the US. Those are all meaningful. The batteries are the moonshot. If you can genuinely make a breakthrough in battery technology, a general-purpose technology. that could fundamentally shift the dial. But now we're back into the long-standing world of R&D and whether these really expensive lottery tickets are worth paying for. You want

to buy a few lottery tickets because the potential payoff from contributing to a general-purpose technology improvement is beyond anything else you can do. But it's still one in a 1,000 or one in a 10,000 shot, maybe at best one in 500. It is inherently a risky endeavour.

But going back to the IT revolution with fibre optic cable, the mainstream argument, which I largely believe is right, for why the US surged ahead wasn't that we had the companies doing the innovation. It was that we had a corporate ecosystem that adapted to use technology. And the argument for why Europe, and to a lesser degree Japan and UK, fell behind the US was because, even though they could get this stuff from anybody and had good scientists, the useful new technology wasn't as widely and quickly and creatively adapted and adopted. So, the bulk of the evidence is that your big gains come from lottery tickets to gather new technology and then adoption and spread of that technology. Neither of those rely heavily on the extent of your domestic manufacturing base. There could be new evidence, new research, new ideas. But that is my understanding of the world up to this point.

Q. What are the right and the wrong lessons that UK and European policy makers should draw from the Biden experience?

Sadly, the positive role of labour market disruption is not transferable because you don't want to put people through that if you don't know what's going to work and what's the right scale so I'm not suggesting that. You can look at specific policies such as breaking down the need for paper qualifications for jobs versus not, although I think the UK is better on that in some ways than the US to start with. You can look at specific things like the opposite of place-based policies: how to make it easier for workers to leave a given employer and given location. But the UK is better on those than your average continental European economy, so that's not a great source of help.

There's affirmation that premature austerity is a mistake, whether that was Bidenomics or that anyone rational would have done it.

And then I believe Europe and the UK should be leaning into the empty gap created by the US and China being bullies and pushing self-sufficiency economically. When Ed Miliband was talking about the UK becoming an energy leader on this and that prior to the UK election, my reaction is lean in instead towards what you're good at. Take advantage of the fact that the US is leaving hundreds of thousands of Chinese students out of its education system. Your solutions are somewhat contingent on your history of politics, your institutions, your starting point.

For the UK, being a more international, rule of law, English speaking, technologically advanced, democratic, property right respecting, on good terms with the US but not a client country presents a lot of opportunities. Do not fall into the Bidenomics trap of assuming that it's costless to try to promote nationally headquartered companies because, as again UK experience has shown, you end up potentially making them exploiters of the government and the people. You want international competition.

I'm sorry if my meagre recommendations disappoint you. But it's consistent with my view that the good stuff that has happened over the last few years has been some combination of unforeseen changes and long standing reasonable macroeconomic policies. It wasn't the Biden team's work. There were a couple of things they did that were good and there were a couple of things that didn't matter for growth but were good distributionally. But ultimately, it's these bigger forces. The fact is the US can keep screwing itself up in unbelievable ways, but there's some underlying thing that keeps us resilient. I don't get it!

If you had asked me in January 2021 about the fact that we were letting our unemployment rate go to 22% while the UK had a peak below 8%, the idea that we were allowing 15% of the workforce and their families to go through that and you asked me what was going to be ahead I would have said that the US was going to fall way behind. These are fundamental structural things, and discretionary policy just does not have that much effect.

Q. Looking back on Bidenomics over the last four years, what is the one real positive and the one thing to avoid?

The one real positive is avoiding austerity, running the economy hot and leaning into the fact that workers and households are more resilient and more adaptable than we sometimes were. The one big negative is pushing on self-sufficiency instead of diversification - spending government money on public things is better than spending public money on private things.

ENDS

Interview with Alejandra Y. Castillo (US Assistant Secretary of Commerce for Economic Development under President Biden)

Alejandra Y. Castillo was the US Assistant Secretary of Commerce for Economic Development under President Biden and led the Economic Development Administration (EDA) between August 2021-2024. Previously, she served as the National Director of the Commerce Department's Minority Business Development Agency (MBDA) under President Obama.

Interviews conducted on 9th December 2024 and 20th December 2024

Q: How would you characterise Bidenomics and how do you assess its performance over the last four years?

From an economic development perspective, when the Biden Administration took office in 2021, the context was clear: the country was emerging from the public health and economic impact of the pandemic. But more significantly, we recognised a deeper, long-term challenge-decades of disinvestment across the United States. Entire regions that once thrived through manufacturing and other key industries had steadily declined. For too long, there had been no meaningful, place-based investment strategy aimed at driving economic growth and a need for industry cluster ecosystem building.

In response, the Administration began assembling the building blocks of a modern economic revitalisation strategy. The first was the American Rescue Plan - a necessary intervention to stabilise the economy, accelerate recovery, and avert a recession. The second was the Infrastructure Investment and Jobs Act - long discussed but finally delivered. It went beyond roads and bridges to include broadband connectivity, digital infrastructure, and critical human capital investments in workforce development.

The third major pillar was the Inflation Reduction Act - a name shaped by political timing, but substantively focused on accelerating the clean energy transition and building a low-carbon economy. Finally, the CHIPS and Science Act provided both a short-term response to supply chain vulnerabilities and a long-term investment in research and innovation. While the CHIPS component addresses urgent needs in semiconductor production, the Science component is the foundation for future economic competitiveness.

Taken together, these legislative initiatives form the backbone of what has come to be known as *Bidenomics*. This is a long play economic strategy - an intentional "big bet" on America's future. While it may not have yielded immediate political returns, it is designed to deliver sustained economic development, enhance U.S. competitiveness, and strengthen national security.

Q: Some of the criticism of ARPA at the time was that it was contributing to inflation above and beyond the global inflation that was occurring. Is that fair?

Roughly three-quarters of the criticism is unfair; one-quarter is fair. Let me explain. The majority is unfair because the inflation we experienced was largely the result of a global economic shock. Supply chains were severely disrupted not only by the pandemic, but also by geopolitical, climate disasters, technology and other events like the blockage of the Suez Canal. These disruptions created systemic bottlenecks that fuelled inflation across multiple sectors and around the globe.

Meanwhile, corporate profits remained strong. There was no meaningful dip - companies continued to generate significant earnings, in part through aggressive price-setting. Consumers bore the brunt of these increases, while corporations posted record margins, largely unaffected by broader economic conditions as prices continued to increase.

Now, on the part that is fair, as a member of the Administration, I stand behind the President's policies. I also acknowledge that we lacked a sharply focused short-term economic strategy-something truly immediate, over a six-month horizon able to address the urgency of everyday living.

To be clear, the President took action on some short-term solutions, like tapping the Strategic Petroleum Reserve to reduce gas prices. But we needed a broader, more visible response - both in public messaging and in policy - to address the day-to-day impact of inflation on American households. Targeted tax relief, for example, could have offered near-term reprieve. Instead, most of our attention focused on providing conditions to build structural long-term place-based investment strategies, sometimes at the expense of addressing people's immediate economic pain.

Q: What was different about the place-based economic development in this administration compared to Obama and Clinton?

Under Clinton, I remember distinctly a place-based economic strategy focused on construction specifically building prisons in rural areas. There was a lot of that: "Let's build a prison, we'll get three cycles of workforce,". *That* was creating jobs in areas that hadn't seen it.

There was an evolution of those ideas under Obama. The Economic Development Association (EDA) in particular, the agency that I led under President Biden, focused on its traditional portfolio and had to fight to defend its budget from getting cut. In large part, we were addressing big economic shocks and industry failures (i.e. financial crisis, automobile, housing). We were focusing on those emergencies.

What President Biden did was take a more holistic approach, extending economic productivity, technological innovation, and growth beyond the traditional hubs on the coasts - the Bostons, the Washingtons, the New Yorks, as well as West Coast centres

like Seattle, Silicon Valley, and San Diego - and spreading it further into the heartland. In doing so, he democratised technology and innovation, a move that also attracted and brought in more capital and conditions for job creation and higher wages.

What was different was the way we created these large-scale grants. These were not one million dollars here, one million dollars there. These were large scale grants. The grants were designed to bring universities, community colleges, nonprofits, philanthropies, workforce development boards, and in the case of Tech Hubs private sector - a coalition of stakeholders - and say to them, “give us your best ideas, what would work in your region?” as opposed to a top-down, cookie-cutter, “here’s what we want.” We allowed communities and regions to curate what type of economic growth, economic activity and industry they wanted to invest in and see grow.

We found some amazing surprises. As I always say, who would think that Tulsa would be the drone capital of the US? Who would think that New Hampshire would be where regenerative biotechnology would be taking place? We found and discovered those areas that already had the seed but needed de-risking from the federal government.

What we’re now seeing is the second wave of capital needs after the federal government has played its role to de-risked, now we need to continue to incentivise the private sector to speed up commercialisation and start-up community as well as existing firms able to support the supply chain to move into the next phase.

Q: Can you say more about the Economic Development Administration’s role in the Biden Administration?

Historically, the EDA operated with an annual budget of around \$400 million. Compared to our OECD counterparts, the U.S. consistently lagged in the percentage of public investment dedicated to economic development.

Under the Biden Administration, that changed dramatically. Federal investment in the EDA scaled from \$400 million to \$1.2 billion, then to \$4.5 billion, and ultimately to \$6.8 billion. Roughly 75% of those funds were directed toward economic development initiatives, while the remaining 25% supported disaster recovery. It’s important to note this distinction, as climate change is becoming an increasingly disruptive force, with natural disasters posing growing threats to local and national economic stability. As a result, the EDA’s role in disaster recovery has expanded significantly.

Overall, this surge - from \$400 million to nearly \$6.8 billion in just three years - represents an unprecedented scaling of federal economic development funding. It reflects a recognition of the deep economic distress facing many regions and the urgent need to invest in critical technologies, workforce development, and regional resilience.

The key question for the next administration is: how will this level of investment be sustained? One-time, once-in-a-generation interventions may create short-term momentum, but they are insufficient to drive long-term, transformative economic growth.

To generate meaningful returns, we must continue making sustained, strategic, place-based investments-supporting both existing industry clusters and the emergence of new sectors anchored in critical technologies across the country.

Q: Looking across the span of programs that EDA has been overseeing over the past few years, how do you find those areas that really are in a “valley of death” or really do need that extra nudge, versus those that are just good at telling a good story about their local economy?

That is one of the key tests that we use for many of these programs. I’m going to speak on EDA specifically; there are other departments like the Department of Energy, National Science Foundation, and other places where large place-based investments have occurred. But I’m going to focus on the four big programs that we had.

One was the Build Back Better Regional Challenge funded under the American Rescue Plan Act (ARPA) in FY22. In addition, we designed the Good Jobs Challenge. In FY24 we received funding for the Tech Hubs program as well as the RECOMPETE program under the CHIPS and Science Act.

For all of these programs, we had record numbers of applications - over 500, give or take - applications that came from all over the country. There were three categories of applicants. One type was where some university had a great idea, they’ve been shopping their idea for many years with little funding success, and they said, “Okay, let’s go after these programs.” Those often never made it. The second type of applicants were those that had a good idea, but needed some additional capacity to further develop their proposals. The third category of applicants - a smaller group - that had a robust stakeholder engagement, well developed ideas and a strong path for implementation. Those were the ones that were reviewed thoroughly.

The ‘but-for’ argument was a big test, and we used a lot of data: prime-age employment gap, distress data not just on the employment side, but also social indicators, health indicators, industry indicators. In essence we wanted to know that “but for these federal investments” these important economic proposals would be jeopardised. This perhaps was the most time-intensive process to ensure federal dollars would actually have a multiplier effect beyond just additional money. That’s the criticism also taking place with CHIPS. Why is the U.S. providing Intel, a private company, so many federal dollars? Is this not something they would do already? What we like to see is that our dollars are either catalytic or additive in a very different way.

Q: What are the metrics that you are looking at over the longer term that would tell you whether this is a success or not? For the tech hubs, would you be happy if two or three or four of those succeeded but the others didn’t?

We’d love to see all of them succeed. Is that realistic? Probably not. But what we do want to see, and I’m focusing more on the tech hubs, is to see those technologies that are going to break through as new industries where the US will have a comparative

advantage, ideally, an absolute advantage. You'll start to see in three years whether the private sector capital is actually tracking. Many of the tech hubs are already doing capital convening. By the way, last week EDA partnered with the National Science Foundation to do a roadmap summit where you had a number of different sources of capital.

If you look at the tech hub designation benefits, you'll see that the U.S. Patent and Trademark Office is one of our partners. The reason is because the goal of this tech hub is to create innovation and be able to patent it and protect that intellectual property. So that's a metric. How many patents are we issuing? How many contracts are we issuing? We are also trying to leverage the procurement power of the federal government to be that first customer, in order to help the tech hub scale.

On workforce development: how many people are we training and placing? It's not just the training, but also the placing. And then the wraparound services: how are these communities really flourishing? I was in Brownsville, Texas. It's not a tech hub, but it's where SpaceX is based. What we're seeing is an entire ecosystem really coming together. The question will be, how do we make Brownsville the hub of the sourcing, versus flying the contractors in, the procurement folks, on a weekly basis, which is what Elon Musk is doing. I can give you a lot of different examples. Chicago is very interesting with the quantum, and so is Colorado. Lots of different metrics.

Interview continues, 20th December 2024.

Q: When we spoke a fortnight ago, we talked about the ARP-the COVID stimulus. You told us that the Biden administration had a really good long-term story about the investments being made but didn't have enough of a short-term economic plan to reduce bills and cost of living in the next 6 to 12 months.

It's not that we didn't have a plan. You saw interventions happening, such as when the President tapped into the oil reserves, which brought gasoline prices down. I think we lacked an articulate communication strategy about what was being done behind the scenes to manage inflation. The Federal Reserve's steps with interest rates, while painful and unpopular, did help too. The key is that, in the world we live in, you need policy plus a good communications strategy that explains, informs, and mobilises. That's where I think we fell short. The action to avert a recession was necessary yet there was an urgent need for the public to see and feel a reprieve from the daily pressures.

Q: On place-based policy, and how the Biden administration differed from Obama and Clinton, you said it was much more bottom-up.

To go a bit deeper: in US politics, Democrats have been accused of representing the interest of the major cities and the coasts - California, New York, etc - that have been thriving, particularly in technology. Given the data measuring persistent economic distress, the growth of technology-based jobs and industry, coupled with job creation

and increase (or lack thereof) wages, the Biden Administration adopted a very deliberate approach to democratise technology and innovation, investing public dollars in places that don't usually see that level of tech engagement, job creation or private capital flows.

You hear the phrase "flyover states" to refer to states in the Midwest where capital and technology seldom landed as investments. The idea was to invest in places like Tulsa, Oklahoma, Wichita, Kansas or Bolder, Colorado and create momentum – new technologies, new industries, new jobs – by leveraging federal dollars as "seed capital" to build the momentum and the next wave of capital from the private sector. In essence incentivise different capital stacks to support place-based economic growth through new technologies and industry formation. We worked to change the paradigm of what had traditionally occurred with most of the funding flowing to the coasts, and create a more inclusive and equitable economic model.

Q: You mentioned four initiatives: the Build Back Better Regional Challenge, the Good Jobs program, Tech Hubs, and Recompete. Could you just briefly explain how each differed and what lessons you carried from one to the next?

Let's start with the American Rescue Plan (ARP). During COVID, that legislation gave the Economic Development Administration (EDA) \$3 billion. Normally, we hover around \$400 million a year, so we were under the microscope to deliver bold programs.

Under ARP, we launched three major programs:

Travel & Tourism (\$700M) – this typically sat under the International Trade Administration (ITA), because travel and tourism are considered exports. But EDA had done some infrastructure for museums and trails to promote travel and tourism. Under ARP, we led a large allocation for recovery in this sector.

Good Jobs Challenge (\$500M) – recognising we needed a new approach to workforce development. The US has always been enamoured with how Germany does workforce development, but the German model is very unique. It is tethered to trade unions and executed by Chambers of Commerce which isn't the model we use here. We designed the program to focus on healthcare and new technologies

Build Back Better Regional Challenge (\$1B) – I see this as the prelude to Tech Hubs. It allowed the federal government to test what could work. It combined place-based thinking, technology, capacity, and regional industry cluster growth. It allowed for places around the country to think about what they believed their economic future could be. We had two phases. First, we asked for the submission of a simple five-page narrative supporting the economic idea would be - we did not want places to be overcome by the heavy lift, we just wanted to understand and look at major concepts and ideas. We received over 560 applications and combed through it to get the best ideas. We identified 60 finalists for the Build Back Better program. The second phase was much more detailed and in-depth. We wanted to institute a two phase process because we

knew there were places like New York who can always put together an incredible proposal, while other places cannot, and so we wanted to be attentive to capacity on the ground, as well as the strength of the coalitions.

Let me go back to takeaways. There are four key takeaways from this competition.

Lesson one was on how regions came together. A key component of the submission was ensuring the creation of a “coalition”. The meaning of “coalitions” was defined in the Notice of Funding Opportunity (NOFO). We also provided examples of who could become a coalition member. Some regions came together, and they listed the names of entities and partners. A mere listing of coalition partners with little indication of how they worked together or their vision for assets or capacity to bring the proposed idea to life.

Other regions came together in a very intentional, methodical and deliberate manner. These coalition members represented an array of partners from the public sector, non-profit organisations, universities, community colleges, philanthropy, workforce boards and workforce development organisations among others. In addition, the coalition met weekly or twice a week, they brought coalition members together and worked through ideas, identifying challenges and opportunities while creating a bold economic vision for their regions. It wasn’t just to check a box to say “here are all our partners” - it was truly a “coalition of the willing” who presented clear ideas and had realistic yet audacious vision. So one take away was the strength, authenticity and ability of the coalitions formed.

The second takeaway was how the ideas were created and developed. We received a cohort of applications led by universities. This cohort of applicants had a distinct pattern whereby a Professor who had great ideas, or had developed a pet idea for decades, saw this EDA competition as a vehicle to receive funding and use it as a submission. Thus, these types of applications showcased that the idea wasn’t necessarily something that grew out of a coalition/partnership or germinated out of a coalition/partnership, it was already something baked. Those didn’t make it through. Instead, strong applications were those that showcased a comprehensive and cohesive set of coalition members who came together to identify an opportunity or sets of opportunities based on the assets, talents and capacity on the ground to ignite true economic transformation.

Another takeaway is that out of the 60 finalists, even those that were not selected in the second round of the competition and therefore did not receive federal dollars carried on. They felt empowered and felt as if they had a good project. They went out and found dollars, either through the local, the state or philanthropies. They carried on.

Fourth, thinking big. Pushing the levels of comfort and tapping into industries that are there but had not been pushed forward, as well as inviting new industries as partners to leverage the assets and conditions on the ground with a commitment to building the future workforce.

The next big chunk of federal investments came through the CHIPS and Science Act. EDA didn't get Bipartisan Infrastructure funding, nor funding through the Inflation Reduction Act. While the CHIPS side of the equation focused exclusively on semiconductor manufacturing, EDA was focused on the science part of the Act. Out of that, EDA was able to launch the Tech Hubs program, authorised at \$10 billion but only \$500 million was appropriated. There might be another \$500 million, specifically \$280 million would be the first tranche contingent on the sale of spectrum and Congress has said this money would go to fund the next round of Tech Hubs. That remains to be seen.

Similar to the Build Back Better Regional Challenge, Tech Hubs also had two phases: a concept phase to look at the idea, then the full proposal. Some of the Build Back Better finalists progressed on to Tech Hubs. That's why I said it was a bit of a prelude, because it allowed places like Tulsa to then take the idea, germinate and mature it. Then Tech Hubs come in and help it to get to turbo speed. That was the beauty of these two programs happening in a relatively short period of time.

Tech Hubs also had a second phase. We announced 12 Tech Hubs. It was a matter of money but also in some cases the technology had not been fully matured. The third piece of Tech Hubs which is less discussed is that we allowed for "strategy development grants," which help places not quite ready (like California's Salton Sea region, with lithium deposits but limited extraction tech) to mature their idea for next time. In the event of another Tech Hub round, they would be well placed to apply.

Finally, RECOMPETE was authorised at \$1 billion but got \$200 million. It's traditional economic development, laser-focused on areas with high prime-age (25–54) employment gaps that had been devastated by drastic changes in the economy.

Q: Where did the \$10 billion figure for Tech Hubs come from? And could you point to local examples of innovative uses of the money that differ from past federal programs?

If I could fully explain the appropriations process, I'd be a very wealthy person—that's Congress for you. There's no neat formula. You've got Senate proposals, House proposals, spending caps, deals hashed out in conference committees—it's a complex mix of moving parts and behind-the-scenes negotiations that are often more art than science.

I'm glad we secured \$10 billion in authorisation for Tech Hubs. Sure, it would have been better if the number were higher, but that's what made it through. Of that total, only \$500 million was actually appropriated in the first tranche -just 5% of what was authorised. It's essentially a down payment, with the expectation that Congress will come to recognise the urgency and strategic value of fully funding the Tech Hubs initiative.

On the innovation front, we've been intentional about embedding value into the process itself. With the 60 regions selected under the Build Back Better Regional Challenge and the Tech Hubs program, we introduced the idea of "benefits of designation." We wanted

to ensure that even being a finalist had tangible advantages-not just funding. These included things like expedited processing at the U.S. Patent and Trademark Office and targeted support from the Small Business Administration. It was about signalling to private investors that these regions had been vetted, met federal standards, and were investment-worthy-even if they didn't receive large federal awards upfront.

Across the country, we're seeing regions step up in impressive ways. In Fresno, California, ag-tech is thriving under Build Back Better. Wichita, Kansas is making major moves in aerospace and advanced manufacturing. El Paso, Texas has aligned city and state resources to build out a defence manufacturing hub, partnering closely with UTEP and securing key contracts. Osceola County, Florida is building momentum in semiconductor packaging and just landed a significant Navy contract.

The way I evaluate success in these places is straightforward: Are they leading in technology? Are their partnerships-with universities or workforce systems-strong and functional? Are they securing procurement deals or attracting private capital? Wichita, for instance, attracted foreign direct investment from an Australian firm. That's proof that federal investment helped de-risk the opportunity, accelerate development, and position local actors to succeed. That's what economic development is all about: catalysing momentum that communities can build on.

Q: When you say Wichita or El Paso is doing 'great things,' how specifically are they spending money? On workforce, infrastructure, new partnerships? What makes them more creative than past efforts?

Secretary Raimondo's management style influenced the program. She always asks, "Who's my point person?" and so that's also how we designed the program. We required a single leader - sometimes called a "regional innovation officer," sometimes "regional innovation and competitiveness officer." At the end of the day, there was a person - not an affiliation or institution - a person that drove the efforts. That person was the driver, a "dog with a bone," who kept everything moving. They were intentional, they were deliberate, they were relentless. I credit a lot of the success to those individuals. If you met them, you would see why they live and breathe this every single day. They are the connectors, they are the people pitching these ideas, they are finding resources, they are collaborating. These individuals might seem like a small element, but it was truly transformational. We baked that in as part of the process. In hindsight, we could have added more funding for that governance structure. We needed the glue that keeps these things together. We needed it but we didn't fund it.

Another observation, if you look at EDA's investment priorities, equity is at the top. I know in the next Administration, they are not going to call it equity, they are going to call it "belonging".

Whatever you want to call it, the idea is that you have to have representation from the community. It can't just be the majority population, it has to be people around it. That may be a unique US thing. In my previous professional experience, I remember when

Paris was having disturbances, some 15 years ago, with the young Arab community. We collaborated with our Ambassador to France to provide models. When you have an inclusive economic landscape, people feel very invested in the success. We wanted to make sure we were working with communities.

The Tulsa experience is interesting because they are partnering with indigenous communities. Indigenous communities are their own sovereign nations so collaborating with them requires a lot of discussion and agreement, but for them it was important because it helps them test drones on native lands.

Q: Any takeaways for a country like the UK with big regional divides?

On collaboration, there's a lot of literature on regional economic development. People tend to see it as "my city" versus "my town". However, when you're driving through a region, you don't distinguish where the lines of demarcation are in that city or town or where one economic area begins and the other one ends- it's fluid. Looking at regional economic development is very helpful, and it breaks down the political nonsense that sometimes takes place, which becomes a very zero-sum game. Changing that paradigm from a zero-sum game to one of collaboration is important.

On metrics, how do you find new ways of creating measurements and monitoring performance and outcomes? When we did the Good Jobs Challenge, which was workforce development, we collaborated with the Census Bureau as well as the Department of the Treasury because what we wanted to showcase was that the actual training led to higher wages. It wasn't easy because there's a lot of data sharing and it has to be protected in many ways, but it was a way of collaborating within the government to find metrics that could help policymakers and program designers either tweak or change things based on quarterly metrics and that's how we did it. We did quarterly evaluations. We presented it to the Secretary. We had green, yellow, red monitoring. If any of these grants were "going south" or something was happening, we wanted to know because we wanted to have as close to real time opportunities to redirect if needed. As you know data does lag so we were at least a quarter behind on the data. Nonetheless, it helped us course correct if we saw things not working out.

These are not easy programs to manage, but they can be incredibly successful. They're not magic wands, so it's not as if you are going to see a turnaround in three months. They take at least an 18-month runway to start to see the benefits of the investments and capacity building effort. The results of Bidenomics will be seen in the next 1-2 years.

ENDS

Interview with Brian Deese (Director of the National Economic Council under President Biden)

Brian Deese was the Director of the White House National Economic Council, where he advised President Biden on domestic and international economic policy. During the Obama Administration, he served as acting director of the Office of Management and Budget and deputy director of the National Economic Council. Previously, he also served as the global head of sustainable investing at BlackRock

Interviews conducted 3rd March 2025 and 4th March 2025

Q: How do you characterise “Bidenomics”? What do you think its objectives were and how do you think it performed?

The term has been thrown around and misappropriated in lots of different ways and I don't think it's constructive to try to distil “Bidenomics” into an individual sentence. But if you made me identify the key components, I think there are two things that are notable and new.

One is a commitment and an effort to drive a strong, labour market-centric recovery from a countercyclical perspective.

Two, a more ambitious willingness to experiment with and put in place industrial strategies—meaning using public capital to try to drive private investment in areas of the economy of strategic importance.

If you lift up and ask, “what's the overall [economic] record?” It's a recovery that, in terms of how fast it was and how fair it was, was remarkable—miraculous in some respects, unpredicted and unexpected. And then the beginnings of a new architecture of an industrial strategy for which I believe— the initial results are quite promising, but the ultimate impact will depend on implementation over many years, because it was by design a long-term effort.

Q: Was the economic response to the pandemic shaped by the conclusions you'd drawn from the financial crisis?

I think that has been broadly overstated by both proponents and opponents who have sought to suggest the Biden administration's approach was to take a 180-degree different view.

President Biden himself and his team were acutely aware of both the economic and political lessons learned.

Economically, it was important to recognise the risks associated with emergency fiscal policy and to appreciate the value of insurance. Politically, given our congressional system, there was the risk of not being able to come back with additional legislation. In many ways, the lesson from the Obama administration was less about economics alone and more about political economy—highlighting the political risks and constraints involved in legislating additional policy down the line.

At the core, there was a view that President Biden held strongly, that if he was going to make an error, he wanted to make the error in the direction of driving a stronger, worker-centric, labour market-centric recovery. But similarly, an effort to understand the circumstances, weigh costs and benefits, and get as close to the right answer as possible.

Q: How do you respond to the criticism that the 2024 election outcome was a result of inflation, and that ARPA (the American Rescue Plan Act) contributed to that by increasing the level of demand-driven inflation?

First, that's a stylised reaction to the headlines. If Kamala Harris had won the election, that wouldn't have been the diagnosis in the headlines.

There was an ex post political rationalisation that said, "inflation was the principal issue; that created a global anti-incumbency bias; and therefore, to what degree did Biden policies contribute to that inflation?". Much of the political analysis in the US is that the actual trajectory of inflation in 2023 and 2024, leading into the election, was improbably positive, in the sense that inflation came down faster, with less attendant economic pain, than most forecasters thought was possible.

The political question was, why was Biden, and then ultimately Harris, incapable of benefiting politically from what was an improbably rapid decline in inflation, given the ongoing strength of the labour market? So that's a political and a public sentiment question.

Obviously, then opponents of Biden and detractors of Biden and people who want to attack Biden say, "Well, that's a condemnation of the fact that the ARP was too large." But I think it's important for your analysis, to disaggregate: there's a lot of political questions embedded here around the politics of inflation that get conflated with the economics.

On the economics, every serious analysis that has been done has come to the conclusion that the ARP, and in particular, the marginal size of the ARP that people debate, was not the principal or primary driver of the US inflation dynamic. Post analysis suggest that it was marginal. You can have a reasonable debate about whether the ARP was responsible for half a percentage point of marginal inflation, or a percentage point, or maybe even a percentage point and a half.

But on the politics, the idea that having peak inflation at 7.5% or 8% rather than 9% would have made a meaningful difference in public sentiment or the ultimate political disposition is one that those critics have to contend with and don't usually contend with because they paint with a broad brush.

So on the economics, you can have a reasonable debate about whether the ARP at the margin was responsible for that marginal impact, and whether on the economics of it, that was a cost that outweighed the benefits that it provided. On the politics, it's just too easy to conflate, because the election went the way that it went. It's too easy to conflate and say, "Well, that was obviously a bad decision, ex post." Ex ante, that's not really the way that you would think about it.

Q: One of the things which is very striking to us in the US recovery is the dynamism in the labour market around small business creation, job creation, and wage rises at the low end of the wage distribution. Was that something you were expecting or planning for?

Our objective in designing the countercyclical fiscal response early on in the administration was to do two things: one, to try to drive a strong, labour market-centric recovery, and two, to take out insurance against a set of known unknowns and risks on the horizon that we knew existed but were difficult to put parameters around, principally associated with the shape of the pandemic and the pandemic response, but also other known unknowns.

On that second piece, we couldn't have predicted the precise nature of those unknowns, but we did end up living through them in terms of Delta and Omicron on the pandemic side, and then Russia's invasion of Ukraine and the geopolitical challenges that exacerbated the supply side of the global crisis.

On the labour market side, our hope and objective was to provide a bridge and support at both the household balance sheet level and the small-business balance sheet level that would put people in a position to continue taking risk, continue seeking job opportunities. So, in a sense, it was our hope to drive the kind of dynamism we've seen in the labour market.

Were we expecting precisely the outcome in terms of the degree of wage growth and the degree of small business creation? No, although I will say that we did look at how economies have responded from prior massive pandemic shocks—obviously, there are very few modern analogues, so you have to go back to a century ago to find analogues that are most relevant.

One of the markers is bursts of innovation and entrepreneurship on the back end, which can be connected to the nature of the shock. We had that on our radar screen. It would give us too much credit to suggest we were trying to engineer the results on the small business and entrepreneurship side that we've seen as an outgrowth. But I do think it is

one of the less recognised aspects of the US economic performance over the last 24, 36 months.

Q: Looking back, do you think the nature of the US pandemic response was a better way to [respond] than the more furlough-based response you saw in the UK, France, Germany, and other European countries?

It's a fascinating question, and one that I've thought a lot about. Of course, it's a hard question because you have to say, "Is it a better response consistent with the underlying system?"

Our labour market— the US labour market— and the US social safety net was such that if we wanted to try to achieve the alternative [European] response, we would have had to have created, in real time, social safety-net structures that we don't have a lot of muscle memory with.

We saw, for example, the PPP— the Paycheck Protection Program— our efforts to stand up more of a furlough-based response was challenged by the deficiencies in our own system. I do think this ended up being a more constructive response consistent with the system that we had in the US.

Q: Some people would say, "The Administration overdid the fiscal response, and that caused inflation." Others might argue, "They overdid the fiscal response, but the labour market outcomes were brilliant." And then there's a third view: "They might have slightly overdone fiscal policy, and it may have been somewhat inflationary, but without that approach, the strong labour-market recovery would not have occurred—since it depended on a heated labour market—and that was ultimately a price worth paying." What do you think?

I know very few serious people who would take your first frame as, "They overdid fiscal policy, and therefore caused inflation"—implying fiscal expansion alone was the primary driver of inflation. Even the most vociferous proponents of that first perspective essentially argue, "They overdid fiscal policy, and therefore inflation ended up perhaps 30% higher than it otherwise would have been."

Those people aren't really saying the administration fundamentally overdid fiscal policy or that the ARP itself was excessive. They're saying the ARP was perhaps \$500 billion to a trillion larger than it needed to be, meaning you're not looking at something like 30% more inflation, but rather closer to 10 or 15%.

I'm more in category three. We had a perspective on what would be the ideal amount of fiscal to do in that environment. We then worked through the political process to pass a bill and ended up with an even larger response than where we had started. We thought that on the balance of risk, that was a better risk to take, both because of the insurance against unknowns and because of the potential to drive a strong, labour market-driven recovery.

I don't think you get the strength and shape of the recovery otherwise. Economically, when balancing those risks, I think that was a reasonable trade-off at the time, and it's worked out quite well for the U.S. The politics layered on top are complicated—but that's my take on the economics.

Q: Could you reflect briefly on how the administration's initial plans translated into actual policies once they encountered the realities of U.S. politics?

The administration came in with a relatively clear view of what it was aspiring to achieve, both from the perspective of near-term countercyclical policy and longer term investment policy and reforms. It laid that strategy out in a straightforward way over the course of the first quarter of 2021.

What the Biden administration did was embark upon a challenging 18-month effort to try to legislate that agenda through the narrowest congressional margins that any modern president has operated with. If you go back and look at what we released in February and March of 2021, it's a pretty comprehensive and straightforward assessment saying, "Here is our policy vision, here is what we want to get accomplished."

What happened over 18 months was a political process—with a 50–50 Senate and the narrow margin in the House—of figuring out, realistically, how much of that vision we could get done. That process defined those 18 months.

Regarding the initial vision—where there was a greater focus on the human-capital side of supply-side progressive economics, such as increasing labour supply through investments in care or the Child Tax Credit—did those become less important or less central to the Biden administration's policies? The reality is, that broader vision was what the administration sought to achieve, and we accomplished what we realistically could, given the political economy at the time.

Both supporters and detractors might argue, "The Biden administration shifted sharply toward industrial policy and away from a human-capital focus." But whether you're a supporter or a detractor, that argument gives too much credit to our policy vision and too little attention to the politics of a closely divided Congress, where most legislation needed bipartisan majorities to pass.

Q: Could you lay out your thinking and approach to industrial policy, and how much of it you view as genuinely realising your ideas versus how much was shaped by political compromise?

To answer the last part, this is an area where, despite a political process that was painful, complicated, and slower than we hoped, we largely achieved the vision we set out. I began laying out this vision publicly in speeches as early as June of 2021, and continued doing so over the following years.

At core, there's nothing earth-shattering about our industrial strategy approach, because it was grounded on the idea that we would identify broad strategic sectors where we identified an economic and national security imperative. We assessed that, left to its own devices, private actors in the market would underinvest compared to what would be economically optimal, and then to the degree we could, use long-term, technology-neutral public incentives to crowd in private capital to build more capacity at scale.

We identified relatively early on three broad sectors that we were motivated by: infrastructure, clean energy, and innovation technology— with microelectronics at the centre of that. To a large extent, we were able to put in place the architecture of a more long-term and more stable public incentives to invest in those categories than we have had as a country in some significant period of time.

Wherever we could, we tried to structure those in a way where they were neutral in applications and didn't require specific governmental decisions around specific firms, precisely because of the concerns around risks of industrial policy. In some places, there was no alternative than to do so— for example, chips and semiconductors— and in those cases, we tried to build an approach that would allow us to reach our goal while mitigating the risks

The core theory behind the Biden industrial strategy wasn't unprecedented from an economics point of view. It was just more ambitious and more unapologetic than prior efforts.

We were quite intentional in the design. Wherever possible, we wanted to create stable long-term, technology-neutral incentives that didn't require a narrow and competitive government-run process of picking individual grantees or individual winners. That was in front of our own minds. That shouldn't be the dominant policy tool, that should be the exception, where we have to.

Where you see - for example in hydrogen or semiconductors - a strategy that looks much more like a government competitive policy of picking individual grantees and winners, it was based on our assessment that there was no credible alternative, either because of consolidation and concentration in the market—semiconductors—or the lack of a market [for hydrogen] and [the industrial policy] was innovation forcing and market shaping on the front end.

By far the dominant delivery mechanism of dollars—whether that's for broadband or it's for battery technology— was largely in tax incentives that are designed to be efficient and also help to reduce those challenges [around picking winners].

With respect to place, we thought about this in two respects. One: how can we build incentives into the architecture of the industrial strategy to encourage investments in areas where there will be a high return to that investment, where there's lower utilisation, lower labour costs, and therefore higher potential return to those

investments. I would say that was implicit in our policy goal and in the policy design and outcomes I would say there are some notable high points and then some things to learn from.

As an example the concept of giving an adder for energy communities in the core of the Inflation Reduction Act tax credits was, in my view, right in design. From a policy perspective, you would want to keep it narrowly targeted and have a high bar in terms of defining energy communities, so that that incremental incentive really had a lot of juice.

That concept, as titrated through the Congressional process, means we ended up with a broader definition that allowed more members of Congress to see into them. In fairness, the Biden administration then interpreted that guidance in a way that was broad, not narrow, and decided to placate the people who just voted for the bill. As a result, you end up with a definition of energy communities that is quite broad.

But I think the energy communities adder is still doing good at the margin. One of the lessons—both in design and execution—is that prioritising specific places is sensible, but the political economy of doing so is challenging.

If you lift up and look at the distribution of private investment in clean energy and semiconductors, it's striking that 80% of it is going into municipalities with below-median education levels and below-median high school graduation rates. That's not the typical pattern of traditional private investment. We've conducted considerable research on this point, and I think it's both relevant and important.

It is incumbent on those who want to be more aggressive on industrial strategy to be clear and analytically precise about the goal—what they're trying to accomplish—and to be prepared to defend the economic and national strategic interest in that goal. There is a risk, when you get into industrial strategy, of simply declaring that “X is strategic, therefore it requires an industrial strategy, and thus the strategy is justified”, without putting enough pressure on whether X truly is strategic.

Now, there is a—what I would call—a kind of comfortable but not entirely intellectually rigorous view that says: “Industrial strategy makes sense for something strategic like semiconductors, but when you get into areas like batteries or solar panels, those seem less strategic.” Let's start with semiconductors. On what model do you defend the idea that having 30% of leading-edge semiconductor production in the United States meaningfully enhances our national security? I start from this—why is it that we're comfortable accepting these national security-adjacent strategies?

Some of it is that when national security implications are raised, economists and economic models sometimes say, “that's not our purview. Someone else defines the national security part of the equation, and we simply insert it into our model.”

We used to do this exercise internally inside the Biden administration. We had a model that said: what does it cost to get what share of leading-edge semiconductor production

in the United States? Why is 30% the right amount? Our model equilibrated at X amount of cost for 30%,? But what's the incremental cost to get to 40% and how much more valuable is that from us from a geostrategic perspective? What if it costs half as much to get to 20%? How valuable is that?

Our tools in economic policy making are not particularly good at that. Actually we should be as exacting on that question, because in a sense, given the way that our national security industrial complex works, I'm more worried about the use of a national security justification to justify an industrial strategy around critical mineral X or an industrial strategy around shipbuilding. That's what's happening in the US right now—an industrial strategy because it's a national security priority. Well, on what model and at what cost and at what relative value [is that justified]?

I'm a big believer in the need to be more analytically robust about this. The framework that treats semiconductors and dual-use technology as the easy cases, while viewing batteries and solar panels as edge cases, strikes me as somewhat lazy. Why, exactly, are batteries—or storage and the upstream components that go into storage—in our national or geostrategic interest? That's something we need to justify clearly, but I'm prepared to defend it. I'm prepared to argue as equally as strategically important as semiconductors.

Then there's solar panels. It's easy to dismiss them as simply green technology, but consider polysilicon: we're now producing high-grade silicon in the U.S. that also has dual-use applications in chips. So where, and in what context, do we define that as strategic or as delivering value for money? Hydrogen and nuclear technology—these are hard questions. I actually think that this is a place where, in general, to do industrial policy more robustly, we all need a more rigorous framework.

On the “Everything Bagel” critique —the critique is a straightforward one that says if you try to do, in your industrial strategy, more jobs, more powerful labour, more powerful communities, more ancillary services in a community, more national security, more economic security, more place-based vitality, and you prioritise all of those equally, you end up with an inefficient outcome.

I have a reasonably high amount of sympathy for the idea that if you're going to do industrial policy, you should identify a clear goal. Going back to semiconductors, the North Star is: get to 30% leading-edge semiconductor capacity in the US by 2030. The harder question then is, what are the tools and tactics that are most likely to get you there? If you believe you need a durable industrial commons with suppliers and supply chains, not just a fab in Phoenix, then you might believe you need to subsidise small and medium-sized employers in the US. You can still have a North Star goal and a broader policy that supports the goal.

Q: Another critique would argue there's been an overemphasis on manufacturing jobs as the primary path to creating good jobs. A better industrial policy aimed at

generating good jobs would instead target services—improving productivity in sectors like retail or healthcare. How would you respond to that critique?

I think this is a place where I'm probably aligned with those who say the principal goal of industrial policy shouldn't be job creation of a particular type. For example, if the North Star is 30% leading-edge fab production in the United States, then it's reasonable to expect we can do that in a way that improves job quality in some categories and adds to productivity, and therefore has a broader positive macro impact. But it's not necessarily a massive job creator on its own. If you look at these initiatives purely from a job-creation perspective, they're not going to be the most efficient way to make jobs.

So a critique of critique you put forward might be: if you have industrial policy goals, you need to ask what capabilities are necessary. There's an under-recognition about the value of muscle memory in manufacturing processes and supply chain capabilities to build industrial capability —what Dan Wang and others talk about regarding China.

If you look at why we're terrible at building nuclear power plants in the US - it costs twice as much, takes twice as long as in South Korea or the UAE - partly that's our regulatory system and structure that discourages risk taking. But partly it's because we've lost the muscle memory from building only one every 15 or 20 years. You need to think downstream about the industrial commons necessary to get these things done - but the wrong way to think about that would be to think about the job outputs you're going to get.

The flip side of that is that I've never seen a politically successful initiative where politicians don't claim that the thing they are going to do is going to create better jobs or more jobs for people. The criticism that people who are promoting industrial policy should never talk about job creation doesn't align with the reality of how politics work. It doesn't keep me up at night that politicians talk a lot about creating jobs. If you're a senator from Arizona or Ohio, 80% of what you're saying is: "This is exciting because we're creating more good jobs."

On the one hand from a policy perspective, you shouldn't design semiconductor industrial policy purely by asking, "How many jobs does this create?". On the other hand, in the production and distribution of semiconductor industrial policy, it's basically fine— even good—that people identify that one of the results is more good jobs.

Not to belabour the point, but part of what the United States can achieve by successfully executing industrial strategies is proving out a model that can help make similar efforts in the UK and elsewhere more successful.

It drives me crazy to talk about nuclear power in the US because there's this collective assumption—almost treated as a law of physics—that it takes 10 to 15 years to build a plant here. Unlike the laws of physics that are actually in play in nuclear, it's not a law. In fact, if we were to set a goal to build 10 gigawatts of nuclear by 2030 and if we walked

back to determine exactly what we'd need to do to make that happen, and then actually did it, the spillover benefits to the world would be quite significant.

One, we would have driven down the cost of deployable technology elsewhere - some of those 10 gigawatts would come from AP1000s which are a proven technology, but we would prove out innovation in process that would have spillover benefits. There would be a number of EPCs that have done it in the US that could do it in the UK. Two, we would drive innovation in small modular nuclear and other technologies. Three, you would show a roadmap of what would actually take to up-end a regulatory architecture, have the model between EPCs and government milestone contracting payments. There are these collective problems in post-industrial OECD economies that are correlated. I believe that when some of us break these down, it's obviously good for our national economies but there will be spillover benefits too.

Q: What are the lessons from the Bidenomics experience for countries in Western Europe, especially the UK?

One is—even before Trump—we've shifted into a new geopolitical paradigm. Rather than fighting that reality or trying to recreate some yesteryear, the right approach isn't about **whether** we should pursue a more active and energetic industrial strategy, but **how** to do it effectively.

Second, clarity of the goal and simplicity and efficiency of the delivery mechanism matter greatly. The clearer the goal—and the clearer the public debate around the national and economic security priorities—the better. It's neither advisable nor feasible to build UK or European industrial capabilities simultaneously in wind, hydrogen, nuclear, shipbuilding, and semiconductors. There should be a national debate to prioritise clearly. The more efficiently you can use subsidies to encourage scale at the margin, while avoiding the known risks of industrial strategy like capture, the better.

I've heard repeatedly that our UK or European friends found the IRA somewhere between annoying and distracting—largely because it was so effective. Companies found it easy to interface with, and it provided certainty for investment. That's a positive lesson we should learn from, rather than fight against.

Obviously, harmonisation across borders is important. Saying this today—on March 4th, after the tariff announcement—I recognise that cross-border harmonisation will only get more complicated, but it should clearly remain the objective.

Q: Do you think there are also lessons on the macro-side, on policymaking and politics, that might translate outside the US?

The shape and strength of the US recovery reflect the broader fiscal policy response—not specifically Biden or "Bidenomics," but the collective response of the U.S. government. Both the design and magnitude of that fiscal policy created a stronger

and fairer recovery. Not the strongest or fairest possible, but clearly stronger and fairer than it otherwise would have been.

In hindsight, there will be important lessons from this. In fact, if we spend too much time debating the incremental margin—like the last \$500 billion of the ARP—we risk losing sight of the broader question: what can we learn from the overall U.S. response?

I think we'll ultimately look back at this as an example of a robust response, emphasising household balance sheets and labour-market strength, and draw many positive lessons from it. Not uniformly positive—there will certainly be areas where we can learn and improve—but overall, that's what I hope and expect we'll take away.

ENDS

Interview with Cecilia Rouse (President of the Brookings Institution, Chair of the Council of Economic Advisers under President Biden)

Cecilia Rouse served as the Chair of the Council of Economic Advisers (CEA) between 2021-2023 under President Biden. Before joining the Administration, she served as the Dean of the Princeton School of Public and International Affairs. She also previously served as a member of the Council of Economic Advisers from 2009 to 2011 under President Obama, and as Special Assistant to the President at the National Economic Council from 1998 to 1999 under President Clinton. She is currently the president of the Brookings Institution and the Katzman-Ernst Professor in the Economics of Education at Princeton University.

Interview conducted January 29, 2025

Q: How would you characterise “Bidenomics” and its objectives? How did the US economy perform under Biden?

Bidenomics is about rethinking the role of the state in the economy. It's about recognising there is a role for the federal government in delivering public goods and addressing large externalities. It's about the public sector working alongside the private sector.

Coming on the heels of the pandemic, I think this role became quite stark. A pandemic is a classic case of negative externalities: if you cough on me or breathe on me, I can get sick. So, we ask, “What's the government's role in addressing that?” We saw many dimensions of the public sector's role during the pandemic.

At the very beginning, when the public health experts said we needed to stay away from one another, we essentially powered down the economy to limit in-person interactions. The public sector then stepped in with the Families First Act, the CARES Act, and so on, to ensure that while we wanted fewer private exchanges (to stop people from interacting physically), people could still buy food, pay rent, and take care of necessities. If we'd let economic activity go to zero, we'd have plunged into a deep depression with enormous human suffering. As a result, the public sector said, “We need to step in since we've asked for a severe limit on economic activity.”

Second, COVID-19 was a virus for which we had no known immunity. Operation Warp Speed was a fascinating example of collaboration between the public and private sectors, starting with public investment in mRNA technology, followed by grants and guaranteed markets for companies that produced vaccines. Many people believe that the combination of grants up front and a guaranteed market later helped speed vaccine development. We got vaccines in record time.

If you then add in investment in roads and bridges, along with climate initiatives, Bidenomics was also about saying, “There’s a proper role for the public sector, and it’s been neglected for too long.”

Another aspect of Bidenomics focuses on rising inequality. It is about caring for the average American—working-class Americans, union workers—and ensuring the economy works for everyone. Rather than just assuming a rising tide lifts all boats, it also places more emphasis on helping those who are less fortunate or are middle-income earners. I personally characterise Bidenomics as those two main elements: (1) reaffirming the public sector’s proper role, and (2) addressing growing inequality.

Q: Most of the people we have spoken to emphasise the macroeconomic parts of Biden’s agenda. You’ve focused on microeconomics. Is that emphasis deliberate?

I’m a micro-, labour-economist who was playing a macro role at the Council of Economic Advisers! But if we look at it from a macro perspective, that macro strength followed from some of the micro decisions.

There was so much federal support—not just from the federal government but also the Federal Reserve— that our financial markets stayed liquid (unlike in the Great Recession). We learned that lesson from 2008–2009. This time the public sector, writ large, kept the economy humming. As a result, if we look at initial weekly unemployment insurance claims, they were around 207,000 at the beginning of March 2020. By early April, they reached over 6 million per week. That was a precipitous nosedive in the labour market—about 10 times higher than the Great Recession’s peak. However, if we look back overall, we ended up with the fastest recovery of any deep recession since World War II. US GDP growth outperformed most other developed countries.

All that fiscal support, along with the Fed’s actions, kept GDP and the economy going, generating a red-hot labour market. But we also had supply chain disruptions that we didn’t fully appreciate. We could see some issues at the start, like PPE and masks, but I don’t think we realised that shifting from consumption of services to goods (goods need transport, etc.) would cause pressures elsewhere. That contributed to a spike in inflation.

Looking back, we’ll have a better understanding of whether all that public support was worth it on balance. We can discuss why it was so large, but that’s a key characteristic of Bidenomics. However, I didn’t lead with it because I don’t think we went in intending to create such a red-hot labour market. It flowed from those earlier steps.

Q: The US saw a bigger spike in unemployment during the crisis, and a stronger reallocation of labour across the economy as a result. Was that deliberate, and would you adopt the same approach again?

That's a really good question. When the pandemic was starting, I remember doing an event with Glenn Hubbard (former Chair of the CEA and Dean of Columbia Business School). I believe he and I agreed that the US just doesn't have the data systems to pay people to remain employed by their current employer. We haven't linked up our data systems to be able to do so. Rather workers separated from employers and we paid unemployment insurance, and then workers needed to find new employment. We also agreed that for the US, those separations could lead to more innovation and better job matching as people reconnected. But if the economy had stalled, as in the Great Recession, there could be scarring and longer unemployment spells. As it turned out, workers benefited because the economy kept going. Thankfully, with vaccines arriving quickly and a strong labour market, workers had a lot of choice, which ultimately benefited them. It certainly could have gone differently, though.

Q: You refer to the labour market being “hot.” How much of what you’ve described is simply a macro story of high demand, and how much is due to other policies or structural features of the US labour market?

I'm a micro person, so I won't claim to capture every macro nuance, but I believe it was predominantly a macro story. That said, the fact that our economy had become so digitised mattered. Many people could work remotely, which allowed for more resilience. Also, there was substantial support for all kinds of workers. At the low end, essential workers bore the brunt of health risks, but they also received extra support—rental assistance, expanded health insurance benefits, paused student loans, childcare assistance, etc.

The childcare sector itself was severely hit, and the American Rescue Plan included money for childcare centres. So, although early on female labour force participation took a big hit, as childcare centres and schools reopened, we saw a record rebound, especially among women aged 25–54. Female labour force participation returned to and even surpassed pre-pandemic levels. Combining these elements—technology readiness, a strong economy, and varied and relatively generous support—helped keep activity moving.

Q: Some have argued the American Rescue Plan was too large and fuelled inflation. In hindsight, do you think the scale of the package was a mistake?

Calling it a “mistake” implies more precision in policymaking than typically exists. First, Congress has its own priorities, so the final numbers weren't entirely the White House's alone. Second, the concern was a repeat of the jobless recovery after the Great Recession. This time, the recession was far deeper. Initially (when the CARES and Families First Acts were passed) we didn't even have vaccines. By the time of the American Rescue Plan (ARP), vaccines were brand new, and we didn't know how durable they'd be, how much they'd reduce transmission, or how quickly we could distribute them. We worried the pandemic might drag on.

The thinking was, “We may not get another chance for fiscal support. Let’s err on the side of doing too much.” We didn’t know by January 2021 that we’d be able to turn the pandemic corner so quickly. We turned it around in part because the Biden team (especially Jeff Zients and his team, among others) was aggressive in getting shots in arms. But that outcome wasn’t guaranteed early on.

Q: There was also a view that Obama-era fiscal stimulus had been too small, so you didn’t want to repeat that. Is that fair?

Yes, that’s correct. When originally designed the American Recovery and Reinvestment Act (ARRA) in 2009 was based on data that later got revised downward; the economy was weaker than realised. Add in the fact that Joe Biden took office after four years of Trump, in the aftermath of George Floyd’s murder, and in the midst of a pandemic. The mood in the country was different. So there were multiple reasons for doing a large fiscal measure.

Q: Critics say that unlike Europe—where inflation was partly a supply shock—US inflation was more demand-driven, which hurt Democrats politically in 2022 and 2024. Do you see that as a fair trade-off?

It might be partly fair, which is why people need to assess its costs and benefits carefully. It is worth noting that some also argue that the large fiscal support helped Democrats get two Senate seats in Georgia, enabling many judicial appointments. This is to say it’s complicated. Ultimately, people will write long books about this.

Q: How much would you say the Biden agenda was focused on labour markets? Is this lost in a discussion that focuses on macroeconomics and industrial policy?

One key component that didn’t pass was the American Families Plan, which some people mocked for calling childcare “infrastructure.”

I’d defend that phrasing—I may need a road to drive to work, and I also need someone to care for my kids so I can go to work. This is about updating institutions. In the past, one parent stayed home; now, in many households, all parents/caregivers work, so childcare is necessary. We also have a demographic shift: the baby boom generation is retiring, which squeezes many people between caring for aging parents and young children. Bidenomics recognised that, in today’s labour market, we need expanded childcare and eldercare. Other countries are ahead of us on this. Biden wanted that as part of the “infrastructure” conversation, but it did not pass.

Q: You mention the legislative barriers to reform. Do you have reflections on how the administration’s ambitious agenda translated into legislation? Where would you have liked to go further, and what barriers did you face?

Remember that in the US, the President has a “bully pulpit,” but in terms of actual legislation, he can only sign or veto what Congress passes.

There was a part of Biden’s agenda that didn’t get done: the American Families Plan. On the other hand, the Inflation Reduction Act was a historic climate investment, which I believe we needed. Perhaps it wasn’t the only way to begin to address climate change, but it was an important step. The CHIPS and Science Act partly included place-based policy to address geographic inequality—areas of the country with too little economic activity—and also to address national security risks in semiconductor supply chains, highlighted by the pandemic.

The piece that remains undone is updating our systems for today’s world: lowering the cost of childcare, implementing paid leave, and so on. If we want higher fertility rates or just want to help families, we have to reduce the cost of childcare. Paid leave is also critical, so people can stay home when they are ill or when they need to take care of children or elderly parents. Many countries already have these policies, but we haven’t caught up in the US. The upshot is that the Biden agenda, especially on those issues, faced a 50–50 Senate, and that made it very tough.

Q: Some in the UK see industrial policy as the real core of Bidenomics, whereas you’ve been emphasising the labour market. Where would you say the balance lies?

I think it’s both. Place-based policy involves generating jobs for working-class Americans left behind. Advanced manufacturing is capital-intensive, but it still brings indirect economic activity. At the same time, we learned from the pandemic that relying too much on distant supply chains could be risky. Many advanced chips come from Taiwan; if China blockades Taiwan, that’s a huge vulnerability. There is also a national security rationale.

It’s too early to say if it will succeed. We’re still building the fabrication facilities (“fabs”), and the market can be volatile. In my view, we should allow the public sector to take some risks and try new things—some may fail. But we know many Americans are not thriving. We have “deaths of despair,” an opioid crisis, falling life expectancy. Trying something different is warranted.

Q: Others have discussed an evolution of Bidenomics over time, towards a greater emphasis on national security issues and supply chain concerns. Do you think the Bidenomics agenda evolved that way, and if so was it mainly because facts on the ground changed (e.g., Russia’s invasion of Ukraine)?

Mostly the agenda was a response to the belief that the United States had long deferred investment in infrastructure that could best be done with the assistance of the public sector. At the same time, parts of it evolved as we learned more about the value of having some capacity to have domestic production of some critical items, such as

advanced semiconductor chips, and not fully rely on imports. The value of domestic production was largely driven by national security concerns.

Q: What are the lessons you learned from the Biden experiments in place-based policy?

We in the US have tried place-based policies before (e.g., enterprise zones, empowerment zones, the New Markets Tax Credit). The results have been mixed—some successes, some less so. What we’re seeing now is somewhat different in scale and structure.

It’s an experiment. There’s a reason the private sector isn’t rushing to rural areas on its own. The question is, “Can we kill two birds with one stone by building massive semiconductor fabs in places not typically known for advanced manufacturing?” Ideally, we address the national security risk of being too dependent on foreign production, while also stimulating economic activity in left-behind areas.

Will it work? We’ll see. But the rationale is that advanced fabs wouldn’t really fit in downtown Manhattan, so placing them in parts of the country that have land, some skilled labour, and need jobs might be an opportunity.

Q: Some commentators have welcomed the administration’s labour market approach but criticised the emphasis on place-based policies and industrial policy as anti-market and inefficiently protectionist. Is that fair?

It may not be entirely wrong from a purely theoretical economics perspective—which argues, “If industry dies in one place, people should move to places with more economic opportunity.” Therefore the policy has largely been to encourage people to move to areas where there are many jobs. Unfortunately, that hasn’t worked well so far because people don’t always move; they have communities, families, social ties. So the Biden administration’s perspective was, “We still have people in these areas who need opportunities, and if we want them to transition away from, say, coal mining, we need an alternative strategy.” Let’s at least try an alternative.

I’m not claiming these new policies will definitely succeed but hoping that pure market forces alone will lift all boats hasn’t solved regional distress. Meanwhile, the national security community sees real risks with depending on China, so we have to factor that in as well. It’s a tension between economists who prefer free trade and security experts who worry about vulnerabilities.

Q: How do you reconcile the US’ strong economic performance over the last two years with the anti-incumbent vote in 2024?

Politics isn’t only about raw economic performance. If you look globally, many incumbents who managed through COVID faced headwinds. We see populism rising in many places—often because of globalisation pressures, immigration, and cultural or

identity concerns. In the US, there's a constant immigration debate. People worry about losing their place in line, or about changing social norms. It's not just about the economy in a narrow sense.

It shows that economics isn't the sole driver of votes. People have broader concerns — immigration, cultural issues, inequality, housing, healthcare, homelessness, and so forth. Many Americans' lives are precarious. Even if GDP growth is good on paper, large swaths of the population feel left behind or anxious.

Q: What can other advanced economies learn from Bidenomics?

Every country is different, so there's no one-size-fits-all. But one lesson is that a strong labour market really can deliver for lower-wage workers.

Another is that while globalisation can increase the size of the overall pie, we have to take seriously the losers. Some countries do a better job of social welfare than the US, but we still haven't fully addressed the distributional consequences of global trade and new technology. The same goes for the tech sector, where network effects create huge profits for a few companies and individuals. We need a better way to share the gains. Universal Basic Income (UBI) is one idea, but that alone doesn't give people meaningful work. We have to figure out how to let more people share in these returns while maintaining a dynamic economy.

Q: What is the biggest positive you take away, and what is the biggest concern going forward?

The biggest positive is that we got through the pandemic—although we lost far too many lives, the public sector played a crucial role in preventing even more deaths and an even worse economic downturn. We managed a reasonably strong economic recovery.

The negative is that it was extremely traumatic, and we're still healing. We're knitting our economies and social norms back together. The educational losses for children, especially the poorest, are profound and will have long-term consequences. We still don't fully know how that scarring will play out, but we will have to face it.

ENDS

Interview with Gene Sperling (Director of the National Economic Council under Presidents Clinton and Obama, Senior Adviser to President Biden and Implementation Coordinator for the American Rescue Plan)

Gene Sperling served as the Director of the National Economic Council under both Presidents Bill Clinton and Barack Obama, making him the only person to hold this position under two US presidents. He served as a Senior Adviser to President Biden and the Implementation Coordinator of the American Rescue Plan, and also as a senior economic adviser to Kamala Harris' election campaign.

Interview conducted 21st February, 2025

Q: Looking back on the historical period since 2020, how would you characterise “Bidenomics”? What would you say from the beginning it was aiming to achieve and how would you say it's performed?

In the summer of 2020 we had some very interesting meetings. Some of them were just with Jake Sullivan, Brian Deese and myself and the then Vice President Biden. What culminated was our response to the [COVID] crisis. The first discussion for President Biden was around how he would handle a major downturn after what he had experienced himself during the Great Recession.

Remember that the job I had managing the American Rescue Plan was essentially the job that President Obama had assigned him really, which was the implementation, not the design and negotiation, but the implementation.

But we were also dealing with the question: what type of more permanent agenda did we want going forward? On the more permanent agenda, it's interesting to look at what was in “Build Back Better” that he campaigned for in 2020. He was very personally involved. I would say that doing calls with his policy team on this was probably something he enjoyed in the middle of the pandemic.

What you really saw there was, and this is very significant, is the outlines of a progressive industrial strategy.

What was interesting is that, in many ways, this wasn't a shift in the Democratic Party so much as giving Joe Biden permission to pursue the policy he already believed in. Biden always felt strongly about a manufacturing renaissance in the United States. He believed we should be less reliant on outside supply chains, for both economic and foreign-policy reasons. In his view, he—not Donald Trump—was the real deal on this.

In other words, he truly understood the impact of manufacturing in the United States. He saw the devastation in Delaware when he was growing up—factories closing down. Through the American Recovery Act, he noticed that whenever people requested exemptions to “Made in America,” they often did it hastily or lazily. But when they checked around, they found plenty of companies capable of doing the work. So for him, that was a major plank—both economically and politically.

Now, economically, he had probably been influenced by the fact that many of the top traditional economists he used to listen to always told him he was wrong—that any kind of industrial strategy was just picking winners and losers and wouldn’t go well. But now there’s more recognition that in the era of China, in an era of transitioning to global competition in industries like electric vehicles and semiconductors, it’s not only economically responsible, it’s economically essential to have a strategy.

I always thought to myself: did the push in Democratic economic thought influence Joe Biden, and the answer is yes and no. It influenced him, not by making him think something he wasn’t inclined to think before, it more gave him a permission structure to say yes, this is what I’ve always thought.

He did worry at times, he’s looking around, he’s seeing Gene Sperling, he’s seeing Brian Deese, he’s seeing Jake Sullivan. He’s seeing Jared, he’s seeing Heather, and he’s saying, well, is this a balanced view? He very much wanted to make sure that we were at least letting him know what people he really respected like Larry Summers and others, who were a little less active during the summer of 2020, what they would have thought. He pressed us quite a bit.

He moved decisively because not only was it a major economic policy shift, but it was a political move he felt good about. “I don’t want to just respond to Donald Trump’s America First, I’m going to trump him”, so to speak. “I’m going to go out first and mine is going to be intellectually coherent”. That’s a really important point, when you look at the Biden economic policy.

There’s three strategies you can see. I should start by saying I don’t love the whole neoliberal, post neoliberal. I think it’s an oversimplification. But there was a more traditional market view that open markets cause disruption and didn’t always lead to industry development that you may or may not prefer but you just had to go with it. Another had been pure protectionism. If you had an industry that was never going to be competitive again, you just had to help save it to prevent temporary suffering.

Biden came up with a third option, which is that you can have a smart industrial strategy, one that invests in production in the United States, but does so in a way that it intelligently looks to the future. One thing I always remember is a conversation where he told us that he never wanted any of us to ever tell him that something was going to be good for the country if it meant that certain communities would be devastated, but other communities would get a new life.

He would say: factory workers today do care about the future. If you tell them you're looking out for their job, they will care deeply that you are looking out for their kids' and grandkids' job. But you can't go to somebody and say I'm looking out for a 22-year-old in Arizona when you live in Pittsburgh and expect them to support you.

One of the interesting things, and I thought signature things, was electric vehicles. He looked at that and said why can't you have a strategy that when you make the transition, you do so in *that* community and you give *those* workers the first shot at those jobs? So you're allowing the US to move forward and compete but whilst looking out for communities and workers.

For me personally, this is something I had been writing about and thinking about ever since I left the Clinton Administration. We seem to have this bad choice, which got worse as globalisation went on and as you saw more communities hurt. If I worried about that, I would be told I'm becoming a protectionist. The reason I wrote the book *Economic Dignity* was to say: hold it. You shouldn't be taking a position on your view of trade per se. You could be taking your position on what's good for the economic dignity of people, and that might mean that you need to have technology advances, compete for the future, but you have to do so in a structure that did not exist in the 90s, where there was a real choice of not just giving people little help if they lost their job, but actually investing in their own communities. I think that that got him excited.

Q: How would you characterise the difference between the Clinton approach and the Biden approach. It's clearly a different time, but is there a different philosophy?

What is interesting about President Clinton was that he had the right vision. He spoke about globalisation with the human face. His goal was to create universal healthcare, universal training and to have more place-based investment. But he found himself between the two sides. A lot of people on the Democrat side were worried that even if open markets were well-intentioned - say in terms of foreign policy - trying to work closer with Mexico and help them develop, bringing China into the global economy and so on requires that you need to have measures to protect people.

On the Republican side—and among some Democrats—there was another view that trade is good, globalisation lowers prices and fosters competition, and we just have to figure out how to “compensate the losers.” I know it's rooted in Kaldor-Hicks, but it's one of the most odious expressions because it's dehumanising. It essentially says, “We're going to take care of everyone else, and at the end, we'll trickle down something for people who lost.”

So, the issue for Clinton was that he had a vision, but when he lost the Congress and couldn't move forward with any of his domestic agenda, he went forward with a vision of trying to bring the global economy together. He was pioneering in terms of labour standards and environmental standards.

When he agreed to China's WTO accession, he had an anti-surge provision. Well, the world might have been different if Al Gore won, but Al Gore didn't win. George Bush won and George Bush let China just run all over the United States. At that point, the view became that if you can't get the structure in place, then maybe you just have to hold back until you do so.

In some ways, President Clinton had the right vision but lacked the political power to implement it. The economy was thriving in his second term. I tell people that when you look at these developments, everyone wants to cast blame, but I think that's the wrong approach. Instead, we should learn from what happened under George Bush, who was willing to let huge surges come in that devastated communities. That was a warning to us all.

I think there was still a negative view of industrial policy—seeing it as “big government picking winners and losers.” Now, with competition from China, it's clear that if you don't have a strategy on electrification, electric vehicles, and semiconductors, you'll get left behind. That's the major shift.

When Biden took office, he passed CHIPS and the IRA, so it wasn't just a campaign commitment—he actually implemented it, and one of them even had bipartisan support. That's a more explicitly pro-manufacturing approach, even though Clinton and Obama were also pro-manufacturing. The difference is a shift in economic thinking that let people say “this is a sound economic view,” rather than “you're just protecting unions in blue states.”

Biden was also the most pro-union president since FDR. That wasn't just campaign talk—he told us that in the Oval Office. Some might think a handful of us pushed him to it, but I believe this is the strategy for the future: you can't stop change, but you can't stand by and let billionaire industrialists dictate our direction.

We first saw proof of this under Obama, when we saved the auto industry. That was industrial policy. It wasn't just about rescuing Chrysler, GM, and Ford—it was about becoming leaders in electric vehicles. If we'd let the market take its course, we wouldn't just have lost jobs; we'd have lost the future, much like what happened when consumer electronics went entirely to South Korea and Vietnam, leaving us unable to compete in the inputs for the iPhone.

Q: There are four things we want to ask about. How important was the hot economy in the early Biden years? Secondly, how important was dynamism and reallocation in the labour market when unemployment went up and came down again? Thirdly, on industrial policy, what do you think were the most important things they did and which bits would you criticise? And fourthly, what lessons should the UK learn?

[Critics of the hot economy] are disappointingly, consistently and unreflexively wrong. At best, they are consistently and reflexively far too simplistic in their claims and not willing

enough to look at the full mix of data. I think that the one thing we would agree to in theory is that when you're judging an economic policy, you have to ask at the time: did you take the right risk approach?

As we saw in the financial crisis, it's not just a case of just what is likely to go a particular way, but how great are the risks of being wrong? There were many things in the financial crisis that both Larry and Tim Geithner and others supported that were very unpopular but we were trying to prevent a 20 or 30% risk of what could be a global recession.

People think this is complicated. It's not. Most homeowners have home insurance. Until the fires in Santa Monica, I'd never known anybody who had to use their fire insurance. But it still is worth having that insurance against such a negative issue. In the Great Recession, we got a painful lesson on what happens when you go too small on a deep economic crisis.

Now, I am not blaming Barack Obama or Larry Summers or Tim Geithner or myself and others who are around, even though I think Jason Furman and Larry Summers often get unfair blame. They did not believe the fiscal response was adequate. We just politically couldn't get a dollar more. So there's some people who want to blame them to make the case for bigger fiscal policy. I don't look at it that way. I look at it a little bit like I've looked at lessons from the 90s. It's not about blame. It's about learning from experiences and not making the same mistake.

Now, interestingly, Larry Summers was the National Economic Council director in 2009 and 2010. I was the NEC director (it was my second run) in 2011, 2012 and 2013. I was the person after we were out of recession and in a painfully slow recovery. We learned really important lessons.

One, you have to have a buffer. You have to have a little extra for what might go wrong, because things go wrong. After the Great Recession, what went wrong? The European financial crisis. Who thought Greece could screw things up so much? We saw gas prices go up with the Arab Spring. We saw the first global supply chain issue with the Fukushima meltdown. We saw a ridiculous, almost default on the debt by the US. We barely had enough, and when those things happened, the economy got mired. Now let's just be clear how bad that was. In 2011, two full years after the recovery, unemployment was at 9%. Youth unemployment was at 17%. Long term unemployment was still near record highs for years and years. It became a lesson on what economists call scarring. How much long-term harm do you do to people when they're out of the economy too long?

Then we also saw that state and local governments ran out of money. They couldn't deal with the suppliers, and the economic blight because they were strapped. This deeply frustrated President Obama. Jason Furman and I would present to him how much stronger the economy would be if state and local governments weren't contracting, and we found that they were contracting about 0.4, about 0.5 a point of

GDP and that normally they'd be up. So the 2 point percent recovery could have been 3 percent. The 1.5 could have been 2.5. It really mattered.

So when we did the American Rescue Plan, there was a very concerted effort to look at was the risk of going big worse than the risk of going too small? People like Janet Yellen, former Fed Chair or Secretary of Treasury, many others and I certainly felt that way. The risks led to not only going big, but going for a longer period. Making sure people have support in that second or third year.

Now putting the inflation to the side for one second—and I know that's hard—here's what's not controversial. In 2022 and 2023, we had the two lowest years of unemployment since 1969.

Had I ever told anybody that the year after the pandemic, we'd have the two lowest years of unemployment? Youth unemployment and long-term unemployment, instead of stagnating at high levels, had the largest drop. It was the most equitable recovery. People were expecting a tsunami of evictions. We had an eviction prevention programme that actually had evictions below averages, which was remarkable. We had the lowest foreclosures in memory.

You had real resilience in the economy. We had bad things happen too. We had Delta and Omicron. We had an unexpected war in Europe, and yet the economy remained strong. So if you're going to talk about this, you have to weigh: what are the risks that those things wouldn't have happened and that we would have had more suffering? And on the inflation side, how much would you have gained?

Now it is not just people like myself who coordinated the American Rescue Plan [making this argument]. There were some of the top economists. In fact, there's probably no one that those guys respect as much as Peter Orszag, who was a brilliant economist and Head of the Congressional Budget Office, our OMB Director, who has written that the American Rescue Plan played virtually no role in the inflation.

It's always good when you look at the forest to look at the trees What's the forest tell you? There was global inflation everywhere. It was not particularly tied to the degree of fiscal stimulus. And after that Larry Summers famously said that this was so related to demand and that you'd have to have 10% unemployment for one year, or 7.5% unemployment for two years, or I think 6.5% for three years. After he said that it was all demand, he was proven brutally wrong. Inflation came down into the twos, which neither of them would have thought was a big problem before. And you still had a growing economy and unemployment staying at 4%—maybe the best period of low unemployment you've had. That should make someone rethink.

But this is the first global pandemic we've ever had that shut down the global economy. It's not the first since 1917. 1917 and 1918, we were in the middle of World War One. Nothing was shut down. So this is the first time in history we've ever dealt [with it]. How is somebody so sure and so much analysis by the New York Federal Reserve, by

Moody's, by Peter Orszag, by so many people have said that this was either fundamentally supply constrained or it was a mix of complicated figures. And Larry's view that we had a very small output gap was immediately challenged by Goldman Sachs, by UBS, by others.

Look, we should be reflective and I think there's a couple of things that are worth being reflective on. We gave out three stimulus cheques. Stimulus cheques go to people in great need and they also go to people who weren't hurt at all. We should think about whether we should use a mix of better tools because they may not be targeting enough.

That is a serious discussion and we should ask, did that play any part in people trying to buy more goods with semiconductors? But if you have a semiconductor shortage due to supply that you couldn't necessarily predict and you have a little more demand, I don't know if somebody could say it was all a supply thing or was all a demand thing.

What's been disappointing is there seems to be this kind of desire to do a legal brief. "Oh, we said the American Rescue Plan might be a little large, and so we're going to prove it no matter what", instead of the reflective view. I think a lot of people think that the American Rescue Plan did an enormous amount of good, that it probably did lift inflation some, but not consequentially. So if it was 1 or 2 percent higher than it would have been, nobody's really expecting that 8 vs 9 percent was going to change the basic inflation picture—or the unhappiness of voters, as evidenced by the experience of every single country.

Q: Could the US growth post-stimulus be driven more by a reallocation-driven productivity surge than by the stimulus size itself?

I want to make clear that while I don't agree with people who take a particular point of view against the American Rescue Plan, my main thing is to argue for humility. I don't think there's humility in trying to say "I thought the American Rescue Plan should be 800, and it was a trillion more, and therefore, that's the cause of all the problems." I don't think it's also humility to not be willing to study this once in a modern history occurrence and try to fully understand it.

Let me say something a little broader about dynamism. If you're having a traditional Economics 101 course on Europe versus the United States, people would say that the United States is more dynamic. We have more small businesses that get started and more that go bankrupt. We get quicker hiring and quicker firing. And Europe has a better, stronger safety net, but maybe not as much dynamism. And then people argue over which is better.

Well, in this case, you may have seen some of the upsides and downsides of dynamism. So in other words, instead of just simply assuming that the inflation was caused by an incremental extra in fiscal policy, one should be looking at other unique factors that could also explain things in the United States.

We, more than most countries, have a housing shortage that developed after the financial crisis. We are more dependent on cars so something that sends car prices up was going to hurt us more.

There's an anecdote I tell which is that we shut down the economy faster and American companies thought shutting down super fast was a way to save money, and it might have been. But it might have meant that there was more friction on the way back. That friction might have been good for stemming their losses, good for reallocating workers, but bad for inflation and a little bad for disruption.

Let me give you an overall example: do you know that rental car companies got rid of a third of their rental cars in a month? They just got rid of them. So when suddenly people wanted rental cars again, it was super expensive. I lived in Santa Monica and worked in the White House. It became incredibly expensive to lease a car temporarily. It had nothing to do with the American Rescue Plan. That had something to do with the kind of abrupt dynamism.

I get the job offer from President Biden and I proudly go to my favourite clothing store and say I need 3 new suits, and they say, well, it's going to cost you twice as much. Why? Is it the American Rescue Plan (which would have been hard since it was just the beginning of March)? The guy says "no, we just decided to cut off ties with our factory that makes all those suits so we'll have to style them ourselves, and that's much more expensive for you than just getting your usual 40 short jacket". That had nothing to do with the American Rescue Plan, that had to do with our dynamism.

I do think that certain advocacy briefs—like the one by people I know that love criticising the American Rescue Plan—can distract us from examining the more serious issues, which are probably more complex. I also doubt they'll demonstrate that the United States' fiscal decisions alone caused global inflation. I genuinely believe that while our fiscal approach may have contributed more than 1 percent to the inflation differential, the overall benefits outweighed the harms.

As we saw in the UK and elsewhere, people weren't happy, and approval ratings for your head of state weren't any better at 7 or 8 percent. But in the United States, if we'd seen the kind of suffering we could have had, we might have ended up with the worst of both worlds—higher inflation and an inadequate policy response, much like in 2011 and 2012, which nearly cost President Obama his reelection.

Q: Before we just go to industrial policy, just to the other elements in that early stuff, child tax credits, childcare, those elements, how important do you think they were?

I think that in my entire policy career, the single most heartbreaking thing to me was the child tax credit not being made permanent (the expanded Biden child tax credit). I would say healthcare failing in 1994 comes in second.

I had been brought in to implement the American Rescue Plan. From the moment I got the offer, I said to my wife, I said to anybody, no matter what I do, if those cheques don't get out monthly, I will be a failure, because that was an amazing experiment, a monthly cheque where the lowest income people got the same as middle income people. And the fact that in four months, not four years like Social Security, you had the first refundable tax credit that went to every family. It went monthly, 90% went into direct deposits, and it brought the child poverty rate under 6 percent, something most of us never thought we'd see in our lives.

For it not to get extended is just heartbreaking. If I could go back in time, I wish we would have extended it more. That would have made the package more expensive. I wish we would have. But on the other hand, it failed for the reason that we only had fifty votes in the Senate. I mean, the real truth is, how did Joe Biden pass so much without being able to spare one vote? He lost by one vote and I do believe that will come back. I think it will be the first thing that happens when Democrats take control of the government again. But I think that is heartbreaking and I think that was something where we wanted it to be permanent.

I think there were a number of experiments that have gone well and a couple have been extended. Giving children some help for food in the summer when they're not at school is a no brainer. We've done that. That's at least somewhat permanent right now. Increasing spending on the Affordable Care Act that many more millions of people are on. That is positive. I think one thing that we experimented with, that again for me, I think my thing I'm most proud of along with the Child Tax Credit, was the Emergency Rental Assistance. It was the first eviction prevention strategy nationally ever in the history of our country.

It's not a long-term solution. But when you talk about scarring, the scarring that happens when a parent with children is thrown out of their apartment, particularly in the middle of a crisis or pandemic. The fact that we actually had less addictions for two years, 20% less, I think that is something to really be studied. I know all the warts in it because I had to implement it so I don't have a rosy-eyed view, but the bottom line is 20% reduction - virtually every country should be looking at. You can't prevent all evictions, and you shouldn't prevent all evictions. But there are quite a lot that could be prevented without hurting the landlord, some government help and some negotiation. I think that is a really important lesson.

The last thing I'd mention is that we had an emergency childcare programme. When we sat there with Biden in the summer of 2020, we were really worried about every childcare centre closing and crushing women's labour force participation. We actually had a programme that went to 80% of childcare centres, across 80% of the country. A third of them said they would have closed permanently without it.

One of the points I always challenge Larry Summers and Jason Furman about is that they feared a decline in labour force participation. Yet within a couple of years, we had the highest women's labour force participation on record. You can't criticise the

American Rescue Plan on every small point and ignore those record low unemployment figures, record drops in long-term and youth unemployment, and record increases in women's labour-force participation. Those didn't happen by accident. A stronger, steadier fiscal response—with buffers to help people not only cope with lost income but also pandemic related challenges—played a very positive role.

Q: Let's move to industrial policy. How do you assess the performance of industrial policy performance so far - especially those place-based investments?

The other major assignment I had in the Biden White House was to be the Chief White House person for the strike between the big three auto companies and the UAW. That was contentious, worked out well at the end, and President Biden became the first President to walk the picket line.

You can imagine that when I talked to the UAW head, Shawn Fain, who I worked very closely with, and then we talked to the big three CEOs, they had very different views of the world. But one thing that was not disputable—that Mary Barra at GM and Bill Ford and Jim Farley at Ford were very clear on— their footprint for electric vehicles was far larger because of the Inflation Reduction Act.

They disagreed with us and they disagreed with us siding with the UAW on many things. But it was clear that those incentives affected their location. What you would have had is the United States putting cars together and buying everything from South Korea. I really think that was their plan. That's what would have happened had Donald Trump won a second term then. He was on the sidelines and China was running all over us.

So one has to look at the big picture, and the big picture is that [our industrial policy] dramatically changed the footprint. What it meant was that we were in the game. Electric vehicles may be a little bit like our parents and grandparents using smartphones. It might take a little while. People have to be confident. People talk to each other and they hear, oh, I like to visit my grandma, she's 300 miles away and I had trouble charging. That's a big argument. That's real. We have to acknowledge that.

I do think in time the advantages of never having to pay gas are really going to make a difference. Whether it worked exactly, or there was as much demand, there just can't be a question that the United States is a stronger economy in the future because we will have an electric vehicle industry in the United States in the 2020s, the 2030s and the 2040s. That would not have happened without Biden's economic policy.

One of the things that I worked on during the autos was creating the domestic conversion program, where we gave significant grants up to \$500 million to people who agreed to do their transition in the same place. That was a brilliant policy. Of course I worked on it, so I think it was brilliant. It's the kind of thing that's bigger in the future. You basically said to the big three or to a steel company, "I know you have to transition to compete, but why do you have to devastate this community? We'll give you more funds if you work with your union, If you work with your workers and if you stay here."

There was a strong focus like that. I think Brian Deese worked very hard on that with creating the Coal Communities Initiative. I want to say one really important lesson because this really gets to the heart of it. I think in the 90s when people, even people who like Bill Clinton talked about globalisation with the human face, tended to focus a lot more on strengthening the safety net. Oh, you're going to lose jobs. We're going to give you training, we're going to give you healthcare, we're going to help you keep your mortgage.

Q: And it's a notional idea about skills?

Skills are crucial, but so is supporting people. That's something Damon Silvers at the AFL-CIO and Michael Wessel at the Steelworkers really impressed on me: they said, "We like training and skills, but it's not enough. You have to create jobs right there." Biden's industrial policy focused on not only job training or healthcare—that matters, but it's still not enough. You need more skilled job locations.

Even if not everyone who loses a job ends up in a new factory role, it keeps the community alive and prevents a downward spiral. Some people will shift to different jobs, but at least they have a vibrant community around them. The real damage from globalisation in the US is that certain communities get left behind, lose their economic dignity and vitality, and spiral into higher rates of alcoholism, suicide, and depression. When policymakers don't seem to care about that, it's like telling one child in a family of five, "We love your siblings, but not you." Naturally, that child feels abandoned.

Q: What are the lessons for the UK here? What are the right lessons to draw from what you've delivered and lived through?

On industrial policy, I'd focus on areas where there's no controversy that global competition will happen, and look at it from an economic and a security standpoint. Of course, security matters; it doesn't mean we're throwing out comparative advantages entirely.

If you have a friendly nation, great—nobody says you need to compete in every single area, but if you're not competing in key industries, you risk falling behind. Taiwan leads in advanced semiconductors, for example, but that doesn't mean they must be the best at everything. Meanwhile, if you aren't incentivising location, development, supply chains, and relevant skills, you'll end up falling behind.

Yes, you do need to be strategic. Politics can interfere if you just protect uncompetitive industries forever. I'd say, don't get stuck in the false choice between letting them fail or freezing the status quo. Look for ways to help those workers and that area transition. That means place-based investments that can work. I think even Brian Deese, who's championed much of this, would say there will be lessons learned in infrastructure, the IRA, and semiconductors. We shouldn't defend everything blindly but figure out what works.

It does get harder when you have to pick different companies, like with semiconductors. You need excellent, independent people involved so you don't wind up just subsidising corporations. And you have to accept that some companies will fail—otherwise, you probably didn't take enough risk.

Where possible, design tax incentives that don't force you to pick individual winners but just set criteria—like many of the pro-climate change, pro-jobs measures in the Inflation Reduction Act. Those give the entire field incentives to aim higher. The more you can do that, the better.

Finally, I believe in incentivising people to rebuild where they already live. People give their lives to a place; an employer leaves, and the executives are fine, but the community spirals downward. From my perspective—rooted in economic dignity—when crafting policy, you can't make everyone equally well-off, but you can protect a baseline of economic dignity. If we let entire communities decline while others thrive, we can't be shocked when those communities rise up in anger or turn to demagoguery. Taking that seriously from the start means not just place-based policy, but focused, targeted strategies that encourage transition in partnership with workers, communities, and unions whenever possible.

ENDS

Interview with Heather Boushey (Member of the Council of Economic Advisers, and Chief Economist of the Invest in America Cabinet under President Biden)

Heather Boushey served on the Council of Economic Advisers from 2021-2025 under President Biden. She was previously the President & CEO and co-founder of the Washington Center for Equitable Growth. She previously worked at the Center for American Progress, the Joint Economic Committee of the U.S. Congress, the Center for Economic and Policy Research, and the Economic Policy Institute.

Interview conducted 12th February, 2025

Q: How would you characterise Bidenomics? What were its objectives and how do you think it performed over the four years?

In my role as the chief economist for the Invest in America Cabinet for the past year, all I did was give speeches on this topic! The core idea was that what we make - and how we make it - in America matters. It matters for the strength and the vitality of America's middle class. It matters for economic security broadly. It matters for national security. Government can't be agnostic about what the domestic economy produces or how that production happens.

To start with contrast, for a long-time policymakers have assumed markets are perfect and that we didn't need to worry about what we made, because we could trade. We needed to allow that process to work its way out. People believed that markets were optimal and so the outcomes that they were delivering were the best ones.

That's why policymakers changed their approach to enforcing our antitrust laws. It's why people didn't really attend to the demise of unions. From a policy perspective, there was the belief that markets would work on their own and we could just tinker around the edges. The idea was that we could make small adjustments—redistribute a little if necessary. That approach was assumed to be sufficient.

Our perspective started with the understanding that this wasn't working. It wasn't working because we weren't focusing on what we make and how we make it.

On what we make, we recognised the need to invest in industries vital to American competitiveness and important for building infrastructure that supports the entire economy. We made productivity-enhancing, game-changing investments to crowd in private industry and then made substantive, structural investments in infrastructure across the economy. The proposals also included investments in the care sector through the American Rescue Plan, though these were not followed up on in the final legislation. The argument was made strongly that elder care, childcare, and early care are part of the nation's infrastructure and those business models require government support.

On how we make it, the government needs to act as a good referee, ensuring markets are not too concentrated and countering economic power imbalances. For decades, antitrust enforcement was neglected based on economic theories suggesting it wasn't necessary. The result was an ever-greater concentration in the US economy.

Looking at the US economy right now, it's clear that it trends oligopolistic, with consequences for innovation, small and medium-sized firms, productivity, and workers and communities. When markets become highly concentrated, workers have fewer employment options. For example, if a nurse works at a hospital in a community where five hospitals exist but are all owned by the same firm, if you leave a job over a dispute with management your personnel record may follow you. It's an extreme example, but it also means if you don't think that your hospital has good standards or you don't like working there, you don't really have other options. Market structure matters, especially in an era of high concentration.

Given this reality, we need to be thinking about empowering and educating workers. That principle is central to Bidenomics, or what we call middle-out economics—building stronger, more vibrant, and more stable communities and a stronger middle class. One of the key inputs is empowering workers, supporting communities, and strategically investing where needed most.

You asked about success. The early signs of our approach showed signs of success. One of the first indicators is infrastructure going up, which is happening across the country—though not as quickly as the political cycle would like it to. We have an infrastructure system in the US where infrastructure goes through the federal government, which then flows to communities because communities are closer to the ground. That takes more time, especially since communities were not given advance notice that they would receive hundreds of billions of dollars. Infrastructure had been a long-standing promise—Trump declared “Infrastructure Week” repeatedly without delivering. The idea that communities weren't immediately prepared to act as fast as we would have wanted is quite reasonable.

Nonetheless, infrastructure is going out with significant progress there. The crowding in of private capital was phenomenal. I'm glad you mentioned that Larry Summers himself noted that in his interview. We have not seen the scale of investment in the construction of new manufacturing facilities in my lifetime. Investment levels not only doubled but were sustained at that level for two years before only recently beginning to slow down.

Over the last year, I travelled to 19 states, often visiting factories without the roofs on yet. This investment is disproportionately happening in lower-income communities and places that did not vote for President Biden in 2020 or 2024. Historically, it takes about two years for infrastructure investment to translate into capital equipment orders and jobs. So we'd expect to be reaching that point about now. I'm not reading anything into this, but last Friday, the jobs report showed a 3,500-job increase in manufacturing employment. That's a drop in the bucket. We saw a very sharp recovery in manufacturing post-pandemic.

We experienced the strongest macroeconomic recovery in my lifetime. The American Rescue Plan made that happen, followed swiftly by BIL, CHIPS, and IRA. Economists will continue debating whether there was a fiscal overshoot, but the evidence increasingly shows that the global supply chain crisis was a real supply side challenge that drove the price increase and then on top of that you had the unprovoked war in Ukraine. Some of the data points that support that hypothesis: Inflation rose around the world, the U.S. did not outpace its economic competitors despite its larger fiscal bump, and our inflation came down faster than others.

It also fails to see the incredible work across the administration to unclog supply chains. While the Federal Reserve deserves credit for its role in containing inflation, there's a real failure to recognise what the administration did as good governance, I toured the port authority of LA and asked folks there about their experience during the crisis, with long queues of trucks getting in and out of the port. They told me they were on the phone with my colleagues at the National Economic Council multiple times a day. That was a 24/7 job to make sure those industries and communities that needed support as the supply chains were all snarled were getting all the help that they could from the Biden administration. There's a thousand dissertations to come from what this administration did but the work on the supply chains is a story I hope people pursue. Looking ahead, my instinct is that supply-side crises will be more common. Understanding what went right there and how effective governance will likely grow in importance so we should study this now.

Q: You've argued that Bidenomics was transformational, but critics point out that the areas of the economy that your reforms affected - such as the manufacturing sector - are relatively small parts of the US growth story over the last few years. How do you reconcile what you've said with the US' growth story coming out of the pandemic?

One reason we're outperforming is the robustness of our response to the pandemic. At that moment, many countries were experimenting. I remember during the campaign being really frustrated and advising the vice president that the way our unemployment insurance system was structured—then adding the Payroll Protection Plan separately—lacked any connective tissue between people being laid off, getting UI benefits, and the PPP. Other countries were pairing those in a much deeper way. I was concerned that the loss of talent would stymie the recovery.

That turned out to benefit the economy, which surprised me. In the U.S., people used benefits as a launchpad. Every year in the Biden administration was a record year for new business start-ups and high levels of job switching. There are productivity gains across the economy emerging from when, in a moment of economic disarray, we gave people enough time to find a better fit. That time meant people didn't have to jump into whatever is available but could find a better match for their skills and talents, rather than taking the first thing because they are desperate.

That's one key piece about the recovery—how we came out of the pandemic. Some of it was intentional. I'm sure Cecilia [Rouse] talked about this in her interview. We wanted to make sure the package was big enough to account for unexpected events. There was so much chaos that we needed enough resources. That was a major lesson from the Great Recession, where we didn't go big enough the first time. You don't get another bite at the apple. You get one chance to do it right.

One mistake from the Great Recession was failing to support state and local governments, forcing them to cut back. States cut higher education funding, leading to more student debt, which amplified into the student loan crisis we're still dealing with at a national level. This time, we gave much more to state and local governments. There has been some grumbling about that, but it allowed communities to deal with their most pressing issues and recover the way we helped families and households recover.

For example, I visited a Rust Belt community where the city councillor and mayor told me they had long struggled with abandoned homes. One abandoned house in a neighbourhood drags down property values, creates safety concerns, and becomes a blight, but they didn't have the resources to address it. Through American Rescue Plan funds, they were able to buy and repurpose homes—about 60, not millions, but significant. They are turning them into small community parks and playgrounds, connecting blocks with green spaces. That's a huge investment in that community's economic future. The disconnect is in the details—it was all in the ARP.

An important factor in long-term productivity gains will be the transition from fossil fuels to clean energy. If we are unable to win that future and be leaders in those new technologies, we'll be at a competitive disadvantage for decades to come.

Beyond that, the enormous costs of going over 1.5°C and ongoing climate damage will dwarf other costs that economies are facing. Modelers can't fully capture the scale of these costs, but we know we'll be spending more on rebuilding homes, replacing things that we already have due to a failure to plan to cut carbon emissions. The health and well-being of the economy depend on cutting-edge investment in these crucial technologies.

Clean energy may be a small part of the economy in numbers, but in terms of technological change and productivity gains, it is absolutely critical.

Q: Did the definition or focus on Bidenomics shift over time - perhaps from macroeconomy, to manufacturing growth, to national security?

I would characterise that evolution differently. The very first meeting I had in the Oval Office; we were talking about semiconductors as a national security issue. It wasn't the topic, but it was part of the after discussion. It was already part of the conversation. During the 2024 campaign, we talked a lot about Project 2025 and how ready the Republicans were. The set of policies that became BIL, CHIPS, and IRA were also

largely ready before we went into office. You can see that by how quickly the first drafts came together.

Key among them, I would say two things. Going back to the framing we used—what we make and how we make it matters. What we make is about national and economic security. Clean energy sits at the centre of that Venn diagram. It is core to economic security because we are an oil exporter—that's about jobs and investments in communities. It's also about national security. If you can't produce energy or don't have access to it, your economy is vulnerable. Most recent wars have been, in some part, about energy and access to oil. This will be different because solar panels aren't the same as pulling oil out of the ground, but the technologies and minerals still make this a very important national security issue.

I think a big lesson this administration and economic leadership took from the Great Recession and previous years is that we need a worker-centred approach. We have to put workers, their families, and their communities at the core of economic policy. That is the outcome we are driving for. We're not just aiming for more GDP—obviously, that's important—but the President talked about making sure this was growing and building America's middle class. That was his North Star.

We had to fight the pandemic, and even in early 2020, the question was: do we have one package or many packages to address the structural changes needed? As it turned out, there were many packages, but the early discussion was about that choice. The second phase was getting the package across the finish line and recognising the importance of political economy outcomes. I use that word specifically because there's been a sense—certainly, I've fallen victim to this—that if you just create jobs, political outcomes will follow. That's a very economist way of thinking about politics, but it's not how the world works. I would argue that it's a necessary but not sufficient condition. If you aren't creating good jobs, it's hard to get across the finish line. If you are, you still need to figure out everything else.

With clean energy, front-loading good jobs across the country—rather than starting with a carbon tax approach that would frontload the costs without necessarily leading to industrial development in the U.S.—was core to that strategy. That was in place from day one. The goal was always to build and support the middle class. That's what the ARP was about. That's what the industrial strategy was about. That's how we implemented policy.

I see that as a through line. The periodisation is: first, dealing with the urgent crisis of the pandemic; then, dealing with long-term economic challenges and structural changes—getting BIL, CHIPS and IRA across the finish line; and, in the last two years, focusing entirely on implementation. That's what everybody was doing.

Where we failed was the storytelling. I have lots of thoughts on that.

Q: You mention the productivity-enhancing job switching that happened during

and after the pandemic. Was that something you were aiming for? Or did it happen for other reasons?

From where I sat - in 2020, before the administration, people were talking about CARES and Families First in the legislation from the pandemic - I think people were more concerned about people separating and not being able to get their jobs back than we were about opening up productivity. That wasn't the conversation I was having, but I'm sure some people were seeing it as an opportunity. Still, it wasn't top of mind.

It was such a moment of fear. Everybody was at home. We didn't know where the pandemic would go or what would come next. I don't think that was purposeful. Given the way our social welfare systems are structured, the challenges with the unemployment insurance system and the need to move quickly, there wasn't time to come up with another option. It wasn't politically viable. There wasn't a big debate like, "We should do it this way or that way." It was about, "What can we do? How can we get people money?"

We just wanted to make sure that we could keep families and communities whole while we got through this horrible time in global history. We wanted to make sure people could still pay their rent. We did a lot around eviction, increased food stamps, and made all those things easier. Extra money for childcare. The main goal was to ensure that we didn't exacerbate the social crisis just because people couldn't get to work.

Q: Could you comment on the targeting of support, such as the use of direct-to-households stimulus checks, rather than going through the banking system. What was the thinking there?

There were logistical challenges. I've done a lot of work on the unemployment insurance system, so I'll start there. One of the things we saw during the Great Recession was that the unemployment insurance system was in trouble. We don't have one unemployment insurance system; we have 50. They're paid by taxes on employers. If you're an employee and apply for unemployment insurance, the taxes on that employer go up. It's experience-rated, so employers have huge disincentives to let laid-off employees access the system. Also, because it's poorly funded by employers, they don't want the benefits to be too big, unlike paid family leave programs, which are funded by employees. Workers have every incentive to support that, which is what we've seen in ballot initiatives across the country.

The system was in crisis after the Great Recession. Many systems had no money, benefits were pared back, and computer systems were outdated. Then, the global pandemic hit. The system already didn't serve most unemployed workers, and we needed to get money to people fast. What could we do? One thing we wanted was to give people bigger benefits because they would be unemployed for a longer period. Ideally, we'd calibrate that to earnings or need, but that turned out to be impossible for the system to do. Everyone got a bump up—\$600. Some people complained that many people were making more on unemployment than in their low-wage jobs. But the reality

is that as taxpayers, we've underinvested in the system for decades. You can't just turn the dial today and make it sensible; it doesn't work. The alternative is to do nothing, which would be economically damaging. That was one set of conversations. There was money for UI modernisation. They made a lot of progress, but there's still a lot of work to do.

On the checks: Donald Trump campaigned on giving people checks, and when President Biden won, we had that special election at the end of December for two Senate seats in Georgia. That became a very important political issue. There was no way to go back on the promise to the American people made during that campaign. That was politics 101. So, we had a bit more money flowing through the system, but where we got it wrong was not understanding that this was in fact a supply-side crisis. For example, we saw that the semiconductor shortage accounted for about a third of the price of the increase in automobiles. That was supply side, real-side inflation.

Q: You are clear that you were aiming to build up political support through the design of your policies, but the Republicans, not the Democrats, won in 2024. What went wrong?

Biden becoming the candidate in 2020 wasn't something people were forecasting in 2018-2019. The fact that he brought in people from the Sanders campaigning world and the Warren world wasn't on people's bingo cards either. The fact that he governed as the most pro-union president in American history and saw climate change as an opportunity to create good jobs wasn't something anyone saw coming.

What did that mean on day one? The battle for the presidency hadn't been about the ideas we were then undertaking. It was about recovery. Biden said during the campaign, "We don't just want to build back; we want to build back better." We had this urgent crisis in front of us, with long-standing issues—racial inequality, climate change, failure to invest in infrastructure, and supply chain problems. He talked about all that. We got some nice letters from Nobel Prize winners on what became the Jobs and Families Plan, which eventually turned into the IRA and BIL, but it wasn't front and centre.

As we started doing things, I kept being wowed by how few people in the economics community actually understood what we were doing. A big part of my job was giving speeches and talking to economic thought-leaders. So many times, people told me that our conversation was the first time they'd heard the theory of the case articulated. I was like, "But the president literally gave three speeches on this last month." Then I realised that people weren't reading those speeches. It wasn't breaking through. I found this very baffling.

I looked at the media coverage and thought, "None of this reflects what we're doing." From day one, the coverage was all about how it would be "bad" for the macroeconomy. Well, we created more jobs than any previous economic recovery, and unemployment dropped below 4%. Yes, there was inflation, but we also brought it down. The narrative

was not consistent with the data. We were relitigating policies for two years without talking about the economic benefits.

Second, the passage of the IRA was a surprise. We passed the Bipartisan Infrastructure Law in the first year. We were supposed to get the rest of it done by the end of 2021, and it didn't happen. The deal fell apart, spectacularly, that December. It was: will Senator Manchin or won't he? When it passed, it was a shock. I knew that my colleagues were working on it but by that time many of us had become very cynical.

That meant, though, that people weren't prepared for when it actually happened and so after the fact, we had to explain the policies. I travelled abroad a lot that fall and into the winter and I would have to explain to international audiences what we did—they didn't know.

It was so big, people just weren't prepared. You're running on a big set of ideas, but that's not what people were really thinking about at the time— they were focused on the pandemic. You start governing and dealing with the pandemic, and then you get into this macroeconomic debate, which is all about inflation, but it fails to see the supply-side issues that we were actually dealing with.

I've been doing TV for almost 30 years, and I've never experienced a year like that before, where you have historically low unemployment and people are still saying, "But the recession is coming, right?"

And, of course, we didn't have a recession. We had solid—at time pretty fast—growth. We outpaced our economic competitors— double the growth relative to everyone else coming out of the pandemic. Yet, every day, we were being asked, "When is the recession going to happen?"

Q: What lessons would you offer from your experience for the UK?

The UK has a hub versus regional problem, right? How do you create investment opportunities outside of London? Above and beyond changing your transportation network— which always seems to be the first thing you should do, making it possible for communities to get to each other— I think the way we did the taxes, not choosing the winners but choosing the industries, is crucial.

You don't want to put your finger on the scale of any one industry. By the time you get to a one-firm industry, like Intel or Boeing, you have a problem. The key is to not let that happen in the first place. You really have to pair industrial policy with antitrust to make sure you're not left with just one national champion.

How do you think about market structure? I will say one of the things I'm very proud of is that we did the first regulatory recommendations for agencies on how, in their implementation, they can think about competition issues. That's so important.

So one lesson is: How are you making sure that you're supporting vibrant industries, not picking winners and losers? I think our tax system and the tax programs from the IRA can help with that.

Then, I think it's about thinking strategically about where along the clean energy supply chain it makes the most sense for you to invest and what is that Venn diagram of national security and economic security.

But we don't have a lot of time. The planet doesn't have a lot of time, and I think the competition to win those industries is going to continue to be ever more intense. So, I think not dithering would be my recommendation.

ENDS

Interview with Jared Bernstein (Chair of the Council of Economic Advisers under Joe Biden)

Jared Bernstein served as the Chair of the Council of Economic Advisers between 2023-2025 under President Biden. Previously, he served as a member of the Biden CEA and was chief economist to then- Vice President Biden in the Obama Administration between 2009-11 before joining the Center on Budget and Policy Priorities, where he served as a senior fellow from 2011 to 2021. He was deputy chief economist in the US Labor Department from 1995 to 1996.

Interview conducted 14th March, 2025

Q: How do you characterise “Bidenomics”? What do you think its objectives were and how do you think it performed?

That might take the hour. I have an elevator-pitch definition of Bidenomics: if you’re helping bake the pie, you ought to get a fair slice. That is very motivating for Joe Biden. It references the gap that’s grown since the late 1970s, a gap you’ve also seen in the UK. Productivity or GDP growth proceeded apace while median or lower earnings and incomes didn’t keep up. There were occasional periods when that gap shrank, when the bakers got fairer slices. Those periods tended to coincide with tighter labour markets. So you could say that full employment is an important part of the recipe and Biden would agree with that. But he would also say that unions and greater worker bargaining power make a difference. Our union density here is small, about 10%, and in the private sector it’s closer to 6%. But a keyway for “the bakers” to get a fair slice of the pie is through stronger bargaining clout.

That addresses part one of your question. Part two, on how I’d assess our performance, is trickier. On a broad set of macro indicators, we did very well. We stood out among advanced economies in GDP growth and low unemployment. Some others had decent labour-market records, but we had particularly low unemployment, strong job gains and even some acceleration of productivity growth. That is the holy grail of economies, and something I know the UK and Europe has struggled with, though you need five years or so of data to confirm a real acceleration. Still, on the macro indicators we did well

On some of the measures that really matter to folks—particularly real incomes—we did less well, though the last few years were a lot better than the first few years. But of course looming over all of this was the inflation record, which led to a sharp, negative spike in American economic “vibes”. I suspect that is a word you have heard before. As early as the second half of 2021, we noticed a measurable gap opening up between the aggregate economic indicators and how the public were feeling about the economy. I thought a lot about that gap. Certainly it relates partly to inflation, but even more to the price level itself. In my view, it relates more to where prices ended up than to the actual rate of change.

I think the first part of your question is pretty easy to answer, as I hope was clear. I think the second part is more complicated, around a set of indicators that mean a lot to me as someone who thinks a lot about the overall macroeconomy where we did very well. But people were very unhappy with the economy and that matters tremendously when you're in the White House. A major reason for that was the price level. It wasn't the only reason: immigration was really problematic for us in the first few years—there was a real surge, and that wasn't something people felt particularly good about. And there were other factors like the President's decision about running again, which I won't say much about.

Q: How much of your thinking on the macro economy was about avoiding a downturn, versus how much was about various policies—tax credits, union power, industrial policy—that require a tight labour market for those policies to be effective?

That loomed larger for many of us, particularly at the Council of Economic Advisers (CEA) than almost anything else. The industrial policies and other elements were important to us, but a function of the CEA is to help the President and senior staff understand what is going on in the overall economy—macroeconomics, global trends, and so on. So we paid a lot of attention to the job market. Obviously, I'm not saying our actions alone were responsible for the unemployment rate; there's a little institution called the central bank that would want to have a say in that. Success has many fathers.

But when we were sitting there in early 2021, the unemployment rate was still above 6%, coming down from a peak of almost 15%. The question was whether the economy would keep improving on its own, or if we needed substantial stimulus to return quickly to full employment, avoid scarring effects and punch back against some of the problems that were still very much in play around the pandemic. With hindsight, some of our critics argue the economy would have gotten better anyway and that we did too much. But believe me: nobody knew that back then and there is lots of evidence to support that view.

Q: How much of your thinking was shaped by the view that the stimulus coming out of the financial crisis of 07/08 fell short, and you weren't going to make that mistake again?

Very much so. Biden said that explicitly in our Zoom meetings when he was President-elect, as we were putting together the American Rescue Plan. But, I also want to be clear that the magnitude of the Rescue Plan shouldn't be described as some carefully calculated number to perfectly and concisely fill the output gap as we understood it. Yes, we wanted to go big, and yes, in the past we had often gone too small, leading to initially very weak recoveries. Scarring is something we were very worried about. We were worried that if families and businesses weren't able to get to the

other side of the pandemic intact, we thought we would be left with hysteresis that would have a negative, lasting impact on the economy.

We wanted to avoid the mistake, as you said, but there was also some legislative piling on because of the politics of the moment. Remember, we had Democrats controlling all three branches. One of the reasons that happened was because of the election of the two senators in Georgia. That involved some fiscal promises that were including in the Rescue Plan. So it was a combination of wanting to go big, avoid scarring and the political moment where there was a lot of untapped demand among Democrats for things they wanted to do.

Q: One of the striking things about the US economy is the dynamism in the labour market. Did you expect that, or were you worried about the spike in unemployment and worry about what it might mean?

We were definitely worried about the large unemployment spike. And there was some discussion as to whether we should think about the European model of keeping people in their jobs, or should we do what we always do, which is temporarily ramp up the unemployment insurance program?

There's a small component of our unemployment insurance program called short-time compensation. It basically means that instead of laying off one person in a firm of five, you cut everybody's hours by 20% and partially compensate them against the lost hours. But that program is very little used. There was a debate about whether we should keep people more connected to their jobs, but there was simply no way to scale up short-time compensation or do much beyond what we usually do, which was to increase the benefits and durations of our unemployment insurance program—which is kind of creaky over here—and we did that.

Nobody I knew at the time said, "It's good that we're doing it this way because there'll be occupational upgrading and better matches." But that is what happened.

So some people argue that this wasn't much to do with Bidenomics, it was the underlying nature of the US economy and labour market and that's what made the difference on productivity and jobs?

That's not quite true. Ron Wyden, the Senator from Oregon, championed this significant increase in unemployment benefits, to the point where there were papers and arguments suggesting we were overcompensating people and giving them a great opportunity to stay out of the job market. Subsequent research showed that it didn't really discourage work, thanks to a natural experiment when those benefits started fading in different states at different times. But, because people had an option to hold out for a higher reservation wage, I think that probably enhanced occupational upgrading—something that might not have happened without strong unemployment insurance extensions, not to mention, of course, very strong labour demand

Q: Some of the same people who say it was the fundamental dynamism of the US labour market also say —while having a hot labour market might be good—you basically overdid it. In the end, inflation and the politics flowing from that are a consequence of thinking it was the macro side that needed to do the work, rather than the micro dynamism of the labour market.

That doesn't strike me as a particularly compelling critique. There's no government since Keynes that doesn't look at a shock and say, "Okay, we have to fill the negative output gap." At the same time, you do micro things — unemployment insurance, tax credits, anti-eviction, improved health and child care access. But there's no government that wouldn't try to fill an output gap of the magnitude we saw.

The very important question is: did we go too far? I'm more sympathetic to that critique. But you have to ask: why, and by how much. It's not all or nothing. Jason Furman and Larry Summers are very good friends of mine and we've talked about this incessantly. Jason, in particular but Larry too, I think agree with me that we would have had a lot of inflation no matter what. My personal view is that inflation would have peaked at 7% instead of 9%. Would that have been less damaging in terms of consumers' vibes? Maybe a little, but I'm afraid not much. Under any plausible scenario—there was no way we weren't going to legislate some reaction to the ongoing pandemic shock in 2021—we still would have faced strong demand colliding with constrained supply, which was what drove up our inflation.

Q: What were the intellectual foundations behind the industrial policy push: did you feel it was a genuine break or was it a continuation of standard economic thinking—just at a larger scale? And then to what extent were the final policies a product of politics?

My friend Jason Furman has a lot to say for getting everyone revved up about post-neoliberal vs neoliberal, I think it's all nonsense. I've talked about what we did on industrial policy very much in the perspective of market failures - a good old neoclassical construct. At least in theory and, somewhat remarkably, in practice too. It's pretty targeted at corners of the market where the private sector is under-investing. Clean energy is the classic market failure where we're internalising externalities, but I'd argue that building chips domestically also became important, and similarly, we want a resilient supply chain.

Q: Do you see that as a market failure or a comparative advantage that turned out to be strategically significant?

You're right — "market failure" might be too strong for some areas, though in clean energy it's a classic case. There are strategic reasons to do this, and the market on its own wouldn't get us there. That's actually helpful framing because when I talk to Congress about this and I frame it as a market failure I think they get uncomfortable,

because that pushes it too far. It is a fuzzy edge of market failure bleeding over into strategic public investment.

On the question: “How did it work?” Surprisingly well. We tapped an elasticity of desired investment in subsidised areas that was bigger than I thought—crowding in more private capital than I expected or than the Congressional Budget Office scored. It’ll take years to judge fully, but I think it’s off to a really strong running start.

Q: Ex ante, were you sceptical?

I don’t remember being particularly sceptical. I was concerned about inflation, because we were saying every day that we’d do everything we can to tamp down price pressures, but then we had this new fiscal policy in the background. We ran models, looked at the payout pace, and thought we’d be okay, but I worried about fiscal pressure. I thought the policies themselves made a lot of sense—whether you call them strategic investment or addressing market failure - particularly when you see they are addressing untapped demand.

Something that was very important to me at the time was I thought we were being too protectionist. So I was happy to see the foreign direct investment come in and companies wanting to build here. I remember getting flak from some commentators saying, “Wait a minute, you’re subsidising a South Korean company,” but if they build a fabrication plant in Cleveland instead of Shanghai, I like Cleveland.

Q: How much of our discussion focuses on achieving specific micro goals, and how much is about using fiscal policy at the macro level? Was it simply a sensible way to do stimulus at a time when the economy needed it?

In the Biden administration, “micro” often meant jobs—Joe Biden would say this is going to create good jobs for non-college-educated workers. They might pay \$100,000 a year, and we had estimates. That’s where a lot of the micro emphasis was.

If you think about things like the child tax credit, those were important too. But in the case of industrial policy, the economic impetus was on strategic or market-failure rationales, jobs, and a bit of industrial-organisation thinking to strengthen key sectors.

Q: How did you feel about your capacity to deliver industrial policy at the beginning, and how has your judgment on the experience changed over time?

I think we did well at that. I very much object to the notion that the US—or any other economy—doesn’t do a lot of industrial policy. We do. In our country, more so than in the UK or Europe, it’s implemented through the tax code in the most inefficient ways, based on who has the most connected lobbyist. That’s how we do industrial policy. Lobbyists with deep pockets invest in members of Congress, who give tax breaks favouring certain sectors. That’s a really shitty way to do industrial policy. I thought we could improve, and I believe we did, with our work being pretty narrowly targeted.

I never worried about the “picking winners” argument—the government picks winners all the time based on who has the best-connected lobbyists—so this struck me as a better way to invest.

The one thing that did worry me, and still does, is that our industrial policy lacked a limiting factor. I wondered where it ends and when the training wheels come off, but you can’t sort out everything when legislating. That was a concern of mine.

It’s the idea that for some set number of years—5 or 10 years —taxpayers subsidise the correction of the market failure or the implementation of the strategy, rather than it going on indefinitely. I prefer the former to the latter.

Q: That depends on your assessment of what’s working and not working - how much evaluation was built into the policy decision?

We were constantly evaluating. In part because the President felt that we really need to tell people at a granular level what we were doing - to the point of what town, how many dollars, on what day and what did they do with it.

So there was extensive evaluation - not always using the economic cost-benefit analysis, although that was of course something we were very interested in, but from the perspective of telling people what we were doing. Now, Joe Biden grew up in a world, and as did I, where if you do good things that help people and tell them about it, they’ll support you. That sort of broke down in a way that was challenging for us.

Q: How did you think about “left behind” places?

When I think of that question, I think about places that were left behind by globalisation in our country. We were explicitly targeting those places, trying to help them. The Trump tariffs also look like they target those places but coming from the other direction. If they continue to pursue this destructive agenda, they will end up hurting the very places that we tried to help - places that have long been left behind.

We put together, somewhat behind the curtain, groups of policymakers to try and target them. For some of the grants, your bid would get bumped up if you were helping a place that met these criteria. I thought we did a good job on targeting. But I understand that evidence isn’t as clear cut as I might like. I know the Economic Innovation Group’s assessment was that it was not as well targeted as it could have been, so I’m not sure.

Q: Some critics like the industrial policy but thought elements of it was protectionist, for example on solar. How did you feel about it?

It’s a very big topic and one of the things I was most engaged in at CEA. There were a couple of strains of thinking in the Administration from thoughtful to less thoughtful and more politically motivated.

We are in an unfortunate place in American politics, where if I wanted to go to Congress and say “I would like to name that bridge in Baltimore the Ed Balls bridge”, everybody would say, “That hippy? Forget about it.” If I said, “I want to name this the Ed Balls bridge and it will be bad for China,” it would pass in an afternoon. China is a bete noire now that is used to muster majority, bipartisan votes.

That was one end. On the other end - at the CEA, I worked very hard to get the approval to go out there and say: this Administration values robust trade flows with our friends. We understand the distortions caused by unfair trade. I’m a long-time reader of Michael Pettis. The notion that trade deficit is a function of domestic savings relative to domestic investment is of course a definitional identity, but the fact is that other countries’ choices also determine your trade balance. I have a long history of worrying about trade imbalances, but I really pushed for a more constructive approach to that in the White House.

Q: Do you think you were successful?

Way more than most people realise, though it wasn’t me. My evidence is that the trade flows remained highly robust. If you look at the magnitude of the flows, yes there was less with China but there was more with Vietnam, Mexico and other substitutes. Trade flows remained robust – I hoped CEA was helpful in pointing out the benefits therein.

Q: Moving to politics, where do you think the mistakes crept in?

I think you have to put immigration in there. The border surges in 2021 and ’22 were not something most Americans were comfortable with

Next, the messaging was problematic for sure but it wasn’t because we didn’t explain to people what we did, we did that all the time. Every single week, I guarantee you we published something saying “here are all the good things we’re doing”. The thing that was wrong with the messaging was that we talked past how people felt about the economy. We talked about this great GDP report that came out. With hindsight, I played a less-than-helpful role in this myself and one I’ve thought a lot about.

But I think we completely talked past people on the economy. They felt the economy - meaning the price level - was highly problematic and all they heard from us was “no, everything’s great”. Now, that’s not what we said. Every time we talked about the economy, we had this paragraph - and I memorised it - explaining that we knew that costs were too high and we were doing everything we could do to lower costs. What we didn’t say was that there was not all that much we can actually do. If I was to do it all over again, I would have flipped the script. I’m not faulting us for talking up good economic reports on our watch - what administration wouldn’t do that? It would be malpractice not to. But I would have said instead: costs are too high, I know you’re struggling, and I get that this GDP report isn’t going to solve that problem, but it is a move in the right direction, it’s necessary but not sufficient. So I would have really

flipped the messaging in that regard. That's where we lost people, not because we didn't explain to them what we did.

All that said, I doubt either the vibes or electoral outcomes would have been any different if we'd had more sympathetic messaging. No one should overestimate its impact, especially in a world with pervasive social media.

Q: In the last six months, it didn't seem as if Kamala Harris talked up the economic record much.

Let me briefly tell you why I think Kamala Harris lost, in my view. The three 'I's: inflation, immigration, incumbency. Also she's a black woman so sexism and racism also played a role. Incumbency by itself was a headwind that would have stopped anybody. Then you add in inflation and immigration surge, which people didn't like. It was largely cured by 2024 but by that point it was too late. She actually ran a solid campaign, but I'm not sure anyone could have overcome those headwinds.

Q: What lessons should policy lessons should the US, and then the UK/Europe draw from this experience?

Watch your supply side very carefully. Many progressive American economists came up - rightly, I'm not apologising - with the view that u^* was set too high, y^* was set too low, the NAIRU was lower than people thought it was and we were consistently struggling with output gaps. When I was coming up as an economist, u was much more likely to be higher than u^* in any given quarter than vice versa, so it's completely reasonable that people like me came up in a world where we thought our economic policy needed to be focussed on closing output gaps.

We didn't ignore the supply side, and leaned into the need to for better infrastructure and access to education. We didn't think enough about the implications of supply disruptions. To put it in technical terms, we pretty much envisioned a flat Phillips curve because that's what we grew up with. What we didn't envision was a Phillips curve that went non-linear and practically vertical when you hit a supply shock. The explanation of inflation is strong demand plus constrained supply. Anyone who doesn't include the second half of that equation has their thumb on the scale.

Q: And if you have a demand and supply shock at the same time, it's hard to offset that with macro?

That's exactly right. But don't overlearn the lesson of hitting back hard against an economic shock. That's the right thing to do, but be mindful of your supply side when you do so.

Q: What lesson do you draw from labour dynamism?

I don't know how well the following observation would translate into UK and Europe's economies but yes, I think it probably would. I think there is a sclerosis that Mario Draghi has talked about that might be improved upon if there was an allowance of more dynamism, which is a nice word for saying what we went through.

At the beginning of this, I was thinking somewhat positively about keeping people connected to their jobs like the European model. With hindsight, if you want a more dynamic labour market, that might not be the way to go. That might be a lesson as well, but I'm not sure how it maps onto other economies. And to be very clear, that only works if you have very strong labour demand relative to labour supply.

Disruption is one of those words that economists use that sounds benign but it can obviously be very painful. On the other hand, we have done very well with business creation: it's not just the big getting bigger, so yes, those dynamics has been helpful to us.

Q: There might be a challenge which is: the dynamism may have been productivity and wage enhancing, but the politics of disruption can be difficult to deal with. Could it be that Biden's political hit was the counterpart to economic success?

That's probably right. If it's true that to get on a higher productivity growth path you have to experience some economic disruption and pain, and I think it might be, the solution is to make sure you have a healthy social safety net. I don't think the Biden problem was so much the disruption, that actually that worked pretty well for people because the job market was so strong that people could upgrade. The thing people felt consistently good about in the polling was the labour market and the jobs, what killed us was the price level.

Q: What is the one thing that really worked and one thing in retrospect was the problem?

The problems were inflation and immigration. It's hard to choose between those two. Perhaps immigration more, because there we really could have made a difference. Some of our early actions, particularly reversing terrible Trump 1 era immigration policies, contributed to a surge of undocumented immigration and that was an own goal kick. Inflation was less of an own goal. That would have happened anyway. I hope you appreciate the football reference.

On what went well: the two words that summarise my career, over these many decades, are full employment. Being the Chair of the CEA during a period we have persistent full employment was a source of great pride.

ENDS

Interview with Jason Furman (Harvard University, chair of the Council of Economic Advisers under President Obama)

Jason Furman is the Aetna Professor of the Practice of Economic Policy jointly at Harvard Kennedy School (HKS) and the Department of Economics at Harvard University. Previously, Jason was the Chair of the Council of Economic Advisers under President Obama.

Interview conducted 11th December, 2024.

Q. How do you characterise “Bidenomics”? What do you think its objectives were and how do you think it performed?

To some degree, “Bidenomics” was a label for what the administration was able to do, which tended to be things related to manufacturing, climate change, microchips, but not the things related to some of his initial ideas on the care economy - child tax credits and the like. It was a label that made a virtue out of necessity. To some degree, it was just a catch-all label for taking credit for anything good about the economy.

How do I assess it? In some ways, the macro economy was good; in other ways, it was bad. I can unpack that for hours if you want, but broadly speaking: productivity growth has been very good; labour force growth has been very, very good; as a result, there’s been strong real economic growth. There’s also been a huge amount of inflation and persistent high interest rates, and real wages are well below their previous trend. I think a lot of that has many, many causes, of which policy is just one contributor.

In particular, “Bidenomics” certainly seems to be about manufacturing. But to date, there’s not much evidence of a manufacturing resurgence. Employment has been on the same down slope, production has been flat, and productivity has been terrible. The one thing that might be meaningful has been a huge increase in structures investment - maybe that foretells some lagged increase in manufacturing in the future, but for now, the manufacturing story is a bit too soon to tell.

Q. How has the U.S. economy performed relative to other countries over the past four years? What explains that performance?

First, we have had narrowing wage differentials in the United States. That started around 2014. It started, by the way, with an unemployment rate still around 6%. So it’s hard for me to put that down to “Bidenomics.” It’s also hard for me to put that down to a hot economy when it wasn’t a super-hot economy for much of the time. It looks almost like a continuous process of wage compression over the last decade.

Part of that, at the bottom end, is the increasing minimum wage (which a lot of states have done, even if the federal government hasn’t). Some of it is that some of the forces

that were increasing inequality have come to an end. There's not much more decline in unionisation, for instance, because unions have mostly declined to very little. It's hard to keep going at the same pace of decline we saw before.

A lot of the factors that explained higher inequality were factors that gave you higher inequality, but not permanently rising inequality. So maybe we've now asymptoted to where we were supposed to be and even moved off it a little bit. I haven't been paying as much attention to comparative wage-inequality trends, but in terms of overall growth, the United States has more favourable demography, has more immigrants, and immigrants work at a higher rate. It's also had more productivity growth. Basically, all the different structural ingredients have been more favourable in the United States than they have been elsewhere.

Q. Given your experience in the response to the 2008/09 recession, was the Biden administration right to risk over-shooting its fiscal stimulus (the ARP, American Rescue Plan) to avoid the mistake of under-shooting last time?

I have no doubt, first of all, that the American Rescue Plan was too big. There are basically two things that I think caused that. One is "fighting the last war," as you said: "too small a response in the financial crisis - let's not make that mistake again." The second is an inertial process in the policy system, where policymakers form a view and don't rapidly update it as data changes.

Many of the elements of the American Rescue Plan - like the size of state and local assistance - were fixed by House Democrats in May of 2020, back when they thought the unemployment rate was going to rise to 20%. Instead, the unemployment rate fell to 6%. Rather than saying, "Oh, that idea we had nine months ago, we need something smaller now," it became "That's what you're fighting for, and when you can finally get it, you're happy you got it." By the way, that was the exact opposite in 2008 and 2009; the economy then was worsening very rapidly, so if you formed your view early it was going to be outdated and too small if you didn't update it quickly.

I would assume the American Rescue Plan both added to economic growth and added to inflation. I don't think there's any perfect decomposition, but I'm pretty sceptical that it added much to economic growth. The economy in the first quarter of 2021 - basically before it went into effect and the money got spent - grew at over a 5% annual rate. Households at the beginning of 2021 were in a vastly better position financially than they had ever been - more money in bank accounts, more excess saving, more room on credit cards, lower delinquencies and defaults, etc. So I think as soon as supply returned, there was a huge capability for demand to be there to meet that supply.

If you look at what output did, it got basically to nearly the pre-COVID projection by the end of 2021, all the way there by 2022. I just don't see how there would have been insufficient demand to accomplish that even without the ARP. Moreover, I don't think supply was sufficiently elastic such that, if you produce a lot of extra demand, it shows up in supply. We saw all sorts of supply-chain issues. I tend to think that we would have

had a pretty similar real GDP recovery - most of the extra demand went into prices. But I can't entirely prove that, obviously.

Q. How do you account for that relative economic strength going into 2021? Was it the CARES Act and the immediate pandemic response under the late Trump administration?

There was another \$900 billion that was passed at the end of 2020. Basically, in 2020, households spent much less than normal, and they got income that was much, much higher than normal. So they already had trillions of dollars of excess savings. You just needed the economy to reopen.

I don't think it was all supply shock - had [the economy] been a closing and then reopening but people didn't have money, you wouldn't have had demand come roaring back once things reopened. But people had more than enough money.

States and localities got about \$500 billion, I think, from the American Rescue Plan. They were in a better-than-normal fiscal situation when that plan passed, so it was pretty clear they also weren't going to be a drag on growth. That was a big aggravating factor in the slow recovery from the financial crisis - state and local governments were a major drag then. Here, it was clear they weren't going to be.

Q. Do you think the stimulus money, even if it had been smaller, could have been spent differently on different priorities or through different channels?

I think there were two models. One is to do something smaller that does the genuine emergency stuff - funding for vaccination, the health infrastructure, etc. That's basically all that was needed. Maybe some extension of unemployment insurance, not because there weren't jobs - there were tons of jobs available - but because maybe it was OK to slow people's move back to work a bit.

The second model would be: "Let's take advantage. It's an emergency, so let's do some structural things at the same time. We'll do \$1.9 trillion, but spend it out over four years, and it's a down payment on various things."

We did that second model in 2009. We had a lot of money for green energy as part of the stimulus, for electronic medical records and so on. Arguably, that was a mistake, and by the way, some of us did not like it at that time. Some of us were very opposed to high-speed rail because we needed as much money in 2009 as possible. But part of the attitude was: "Don't let a good crisis go to waste."

Now, in this case, in some sense their judgment was vindicated in that they were able to come back and do quite a lot on things like climate change and infrastructure. So the fact that they didn't fit it into the first bill, they did get to it later on - but in some sense, they risked it not happening, because who knew whether another bill would pass and how tight the margin was?

Q. Relative to Europe, the US has seen much more job switching and business creation since the pandemic. Does that explain the US' different productivity performance? Why?

On business creation, I have no idea what's going on and I don't know what these businesses are. I don't think anyone else who's talking about them does, either. But tell me if you've found someone who does.

On employment: yes, the employment rate went down much more in the United States than in other countries during the pandemic. Some of that is just optics: somebody in the UK wasn't working but was still getting a paycheck; someone in the U.S. wasn't working but was getting money from the government. Functionally, it's the same, but it's recorded differently in the statistics. However, by the end of 2022 or 2023, the U.S. employment rate was still down, whereas it was up in most other places relative to pre-pandemic. So this goes beyond optics.

I'm very haunted by the possibility that the flip side of that is the higher U.S. productivity growth. There are two mechanisms for that. One is a reallocation, where in the US people move to better things, and in other places, they got stuck in whatever they were in before. The second is labour hoarding. Elsewhere, people were labour-hoarding and that doesn't speak much to your long-run technological potential. In the short run, that shows up as lower productivity growth.

I'm not positive either interpretation is correct. Part of why I'm not positive is that the U.S. historically has had a higher elasticity of employment to the business cycle compared to other countries. Our unemployment rate also went up more than other countries during the financial crisis, for example. So there may be something in the nature of our labour-market institutions.

But yes, I'm haunted that in the US we need to take more seriously what can be done to have faster employment recoveries; and in Europe, people need to take more seriously that some of the low productivity they're concerned about might be the flip side of strong employment rates.

Q. If labour productivity in the US disguises lower employment (and vice versa in Europe), does that mean we would expect the US and Europe to converge again over time?

The divergence has been going on for quite a while. If you look at the stock market, it's easy to explain the divergence: a couple of huge tech companies. But the stock market is pricing a present-value concept, not actual realised productivity. Certainly, the Draghi report puts much of the difference, over a longer window, down to the technology sector.

I haven't seen a sectoral comparison for the last couple of years, but one interesting thing is that it's definitely services where we're getting productivity in the U.S.

Manufacturing productivity, I believe, has been pretty flat. The composition of productivity growth in the U.S. is shifting. That also speaks to industrial policy as manufacturing policy - it's really about a small fraction of workers, and it's not necessarily what's been paying off recently. It's definitely not the thing that's been paying off in recent years.

Q. In the UK debate, there is significant concern Baumol's "cost disease": as we move into a service-dominated economy, we have to accept lower productivity growth. Why is there a difference between what's happening in the U.S. and in the UK?

Over a longer horizon, services productivity has been a lot lower, but it's just recently that services productivity picked up while manufacturing has fallen. So the composition of productivity growth we're seeing has changed substantially.

The idea that you can do more with fewer hours - especially when you have technology - means so many technological innovations now are in the service sector, not manufacturing. I'm not sure how Baumol's disease will hold up if AI can replace me as a lecturer. Then all we'd have left is, say, classical music performance, where it still requires four humans and 30 minutes to play a Beethoven quartet. Everything else, the AI might be better at. Perhaps it would even play Beethoven better, but people wouldn't prefer it.

Q. And if you had to hypothesise about business creation, what would you say?

My question is: if I already know productivity growth and employment growth, does that give me any additional information? If it's an imperfect proxy, if I didn't know anything about those, I'd cling to this business-creation data as the one piece of data I had. But I already do know employment and productivity growth. Should I feel differently about two economies that have identical employment and productivity growth but one has higher small-business creation and the other has lower? Maybe it's worse if you have a bunch of small businesses instead of super-exciting big businesses. I just don't know whether it matters in a positive or negative way, once I already have the other information.

The data series people are looking at doesn't go back far enough. I've asked whether anyone has research or a basis for interpreting it, and no one's given me an answer. Maybe somebody does and just hasn't shared it with me, but I'm not saying there isn't an answer—only that I haven't seen one.

I do think that the intellectual ecosystem in the last few years, at least in some spaces, did a better job surfacing positive data - because there are more wonky, numerate people who were cheerleading Biden than there were trying to find contradictory numbers. So I think the U.S. comparative GDP performance got amplified more than the U.S. comparative employment performance did for that reason, and less thought went into it. I think the small-business data got elevated less by the nerdy macroeconomic

analysis that looks at central banks and more by people enthusiastic about the last few years—rightly or wrongly enthusiastic.

Q. Moving to industrial policy in the second half of the administration - IRA, CHIPS etc - what do you think the positives? Where would you critique Biden's industrial policy?

I'd separate CHIPS and the IRA.

On CHIPS, I don't think it's that much of a positive innovation. If you want more of something, you give subsidies. They ran it in a pretty businesslike way. When it passed, my view was it wasn't self-executing - we'd have to see how it was implemented. I think so far, so good, with a huge asterisk around Intel. They brought in a CEO from Blackstone, I believe, so they approached it in a deal-making style. Normally, the private sector is better at making deals than the government. But if the goal is to get microchips that are 20% worse in quality or price, the private sector won't do that, so you need the government. Basically, that's a national security argument, not an infant-industry argument.

If you talk to businesses, a lot of them preferred the investment tax credit to grants because there was less red tape. So maybe the government attached too many conditions; but for the most part, I think the "everything bagel" approach to childcare was more in press releases than reality. Most of that wasn't binding. My guess is that by 2035, we'll be making more advanced microchips in the U.S. than we would have otherwise. Does it pass a cost-benefit test? Probably, but we'll have to see.

One thing the CHIPS Act didn't have was a fully integrated approach - it basically gave subsidies. It would have been nice if it had also addressed immigration and permitting more basic research. It did authorise some research funding, but that wasn't fully appropriated. Possibly government procurement or guaranteed-purchase approaches could have been considered too. So I can imagine five tools for CHIPS; they mostly did one, and didn't do the other four.

On climate, the approach was more holistic: you have regulations that tell you to make more efficient cars, you have subsidies to buy those cars, money to build charging stations, subsidies for greener electricity, and subsidies for manufacturing the greener equipment. If anything, the climate approach might have been too holistic. There's a big difference between installing solar panels in the U.S., which I wholeheartedly support, and making solar panels in the U.S., which, if it means more expensive, lower-quality products, I'm not on board with. And I'm not sure we could get them only 20% more expensive - China is just very good at scale.

Then you have charging stations. That was done through a state program rather than a federal program, so almost nothing has happened yet. I think eventually that money will be spent, and we'll get more charging stations, but we're not there yet. They were a bit

slow to push NACS, the North American Charging Standard, which might help address some of the chicken-and-egg problems.

Some pieces didn't fire on all cylinders. Some pieces weren't necessary. On an up-or-down vote, though, I'd vote yes on the whole package.

Q. Were there other microeconomic policies pursued by the administration that you'd highlight that might be undervalued as part of the Biden administration's toolkit?

Well, there's one big one: infrastructure. That's not particularly novel - it's just the government spending money on infrastructure. Everyone has wanted that. In nominal terms, there was a big increase; but in real terms, after inflation, infrastructure spending is actually down relative to Trump and Obama. That highlights how it's not just how much money you spend, but how you spend it. If you try to spend it too quickly, you run up against an inelastic supply curve and end up with higher prices rather than more quantity.

That's a cautionary tale for infrastructure. It's also a hopeful sign for medium-sized economies with fiscal constraints that maybe you can do a lot without necessarily spending more money - if you can spend existing money better, by reducing obstacles.

On smaller micro stuff, I think the administration's approach to AI has been generally good. They've encouraged voluntary transparency - that builds public trust in AI without unduly inhibiting rapid change. If Congress had passed a bad law, maybe the administration would have signed it - I'm not sure - but Congress never did. Some proposals had language that was overly focused on DEI (diversity, equity, inclusion), without considering that humans are quite biased and maybe it's easier to de-bias AI than to de-bias humans. But none of that was really binding. If you read the Wall Street Journal editorial page, you might hear about something posted on a website implying "hire these types of people or you can't proceed." But I don't think it has slowed results in practice.

Another huge micro piece is antitrust. The administration moved in the right direction - greater toughness but overshot the mark by a decent amount. That's particularly true of some of the remedies proposed in the Google case, likely also the Amazon case. We'll see what the courts say, but in the Google case, especially, the proposed remedy on AI would inhibit their ability to be a real competitor in the AI space. Also, there's probably been too much chilling of merger activity overall.

Q. You've mentioned a couple of examples - conditions around grant funding or DEI requirements - where you think there's a gap between the rhetoric and the reality. Is it that the administration has tools in regulations that they're choosing not to use, or are they trying to implement the rhetoric but finding it doesn't work because people can easily get around it?

In both broadband and electric vehicle chargers, there's a lot of money available and very little has happened so far. You look at the websites and they say you should hire these types of people, so folks say, "Well, that's why no one's doing anything," but I suspect that's not really the binding constraint. In the CHIPS program, I think 98% of the analysis was on "How many chips are you going to make, how fast, and where?" and only 2% was about "What's your childcare program?" The childcare piece got a lot of press, but it wasn't binding because everyone already had something close to it. In broadband and EV chargers, it's mostly the states deciding who gets the money.

To be clear, I think diversity and inclusion are very worthwhile goals. But if you have a mission - say, building EV chargers - you probably don't want to risk that mission failing because you placed excessive emphasis on an entirely separate set of goals. You can't accomplish everything at once.

Q. These bills had objectives beyond economic growth - national security or climate. How might you redesign CHIPS or the IRA so they still deliver on climate or security goals but boost economic growth further?

For CHIPS, I'd push more high-skilled immigration. For the IRA, a carbon tax of maybe \$80 a ton would have achieved the same emission reductions. That would have been more efficient, and it also would have generated money that you could use for other things. And I'd put less emphasis on 'Buy American' requirements, which I think yield negative emissions reductions and negative economic growth - lose-lose.

Overall, a decent fraction of the people implementing these programs understood they were doing cost-benefit thinking, trying to ensure benefits exceed costs. Some people spoke of solving all problems at once, but there were also a fair number of clear-eyed people.

Q. What lessons would you take from the U.S. experience over the last few years for the UK?

I don't know if there's anything different from what I'd have said a couple of years ago: try to figure out how far you can go without spending huge sums of money. Brexit is a net negative, but you can mitigate some of that because you have more freedom on the regulatory side now. I don't know how much that's been utilised.

I believe the U.S. is among the worst, and France among the best, in terms of infrastructure costs. I'm not sure where the UK ranks, but it might be good to relentlessly focus on that. Immigration is always a fraught issue, but perhaps you can at least target high-skilled immigration.

As for targeted programs, I'm not sure what I'd do on microchips if I were the UK - maybe free ride on everyone else. Even the huge sum the U.S. spent is just "a thing in the bucket" compared to global microchip investment.

There's not something dramatically new here. You can take anything you like in the U.S. and adapt it, but I'm not sure the data from these three weird years suddenly changes big lessons.

Q. So fix the UK's foundations rather than copying the US?

I think so. It's only three years of data in an extremely weird time. It would be surprising if you learned a new lesson that caused you to totally change your mind.

In some ways, it just makes me more worried about certain things - like the fact that the US can generate a lot of GDP but not commensurate employment. I'm now even more sceptical about the "hot economy" thesis: that a hot economy is what narrows inequality and raises real wage growth. A lot of policymakers were sure that when you heat the economy, wages rise faster than prices. I surveyed macroeconomists about this in 2018, and they were sceptical. It's theoretically ambiguous, and I think the last few years bear that out. But I don't see the UK being in a position to heat its economy like that anyway.

ENDS

Interview with Jonah Wagner (Chief Strategist at the US Department of Energy Loan Programs Office, and Principal Assistant Director for Clean Energy at the White House Office of Science and Technology Policy under President Biden)

Jonah Wagner is former Chief Strategist at the U.S. Department of Energy (DOE) Loan Programs Office, and former Principal Assistant Director for Clean Energy at the White House Office of Science and Technology Policy (OSTP).

Interview conducted 9th December, 2024.

Q: How would you characterise Bidenomics and how do you assess its performance over the last four years?

I'm better positioned to talk about Bidenomics in the context of clean energy. When we talk about America's clean energy industrial strategy—which is underpinned by the Inflation Reduction Act (IRA), the Bipartisan Infrastructure Law (BIL), and the CHIPS and Science Act as the central pieces of legislation—the goal was to say we don't just want to invent these technologies in America; we want to build them here, too. And that we're going to be deliberate in the technologies and sectors that we believe are going to be most important to compete, and to support good jobs and resilient supply chains, and clean, reliable, affordable electricity for all Americans.

In practice, it was more than that. It was dusting off the Loan Programs Office (LPO) in recognition of an over 10-year history of successful management of tens of billions of dollars of clean energy loans and saying – “we are now open for business again”. One of the lessons of America's industrial strategy is that there were programs like LPO at DOE that existed before any new laws were passed. LPO already had over \$40 billion in latent loan authority. Work began before the IRA passed, with a new Director and a new team and a new Secretary saying “go out and take risks”! LPO had a ~\$70 billion application pipeline before the IRA ever passed. I imagine there are other programs in the U.S. government—and in the U.K. government—that, with a different level of risk appetite and ambition, we could get a lot more out of than we do today.

Q: When we're talking about the story of the Biden administration, we often home in on those three big landmark pieces of legislation, but how much would you say it is also about the attitudes of personnel, and the scope and ambition of leadership that moved the dial?

Obviously, it's hard to separate them. The reason I brought it up is that we were building momentum before the Infrastructure Law passed. It's hard to say whether that was because the Administration was already leaning so hard into infrastructure already, that it created the permission structure for us. When I joined DOE in the fall of 2021, we were already thinking through what would happen if the Infrastructure Law passes. But

yes, there were already latent resources that were available to get started without that agenda in place.

Momentum is a powerful thing. One of the lessons of the Infrastructure Law is just how you think about creating momentum and ensure that you're not going to go sideways when something interrupts that momentum.

From the beginning we took the approach of "private-sector-led, government-enabled" in how we approached investing. The theory that capital markets are the most efficient mechanism for capital allocation, and government should be judicious in steering those decisions. We should only do it in particular circumstances and ideally with a prescribed end date—for example, when it comes to demonstrating a new technology, or helping a promising new technology compete with powerful incumbents.

At the LPO, we didn't have an agenda like that: if a company was eligible for a loan, they got a loan. We follow where the private sector leads.

That's where the "Pathways to Commercial Lift Off" effort came from. The spirit of that was: unless we are having a very active conversation with the private sector, we are going to execute policy wrong. We're getting tremendous insights from the hundreds of LPO applications coming in, the CEO conversations we're having, and all of the loans in our portfolio... We're learning. We should tell these companies and investors what we're seeing, consistent with business confidentiality requirements. For instance, if we know that the only way that geothermal is going to move down the cost curve is if we hit a certain scale, then all of a sudden we have a benchmark to target. We can say: "Everything we're doing is about getting to \$15-20 billion of deployment over the next 10 years." If we can do that, this thing is flying.

Q: Just one more macro-level question before we get back to the micro side. A lot of people—Biden included—have talked about Bidenomics as “bottom-up, middle-out,” rebuilding manufacturing capacity, and so on. In your work, how did you link back to those macro objectives? Did you focus on growth, CO₂ emissions avoided, jobs, or something else? Which of those objectives felt most relevant to you?

We were most focused on financing big clean-energy projects that met our eligibility requirements. I'd say that the thing that we added to them - in some cases it was required and in others we did it anyway - was what we called Community Benefits Agreements. Those were to encourage our applicants to help make sure they had a plan in place to engage communities, environmental groups, local universities, and how to work with labour organisations to ensure they had the talent they needed. We didn't pay lip service to it; we thought it was good business. It de-risked the project and strengthened a social license to operate. We did it for all of those reasons.

When you step back from our portfolio, you found that most of these projects that were getting built were happening in communities that were below median income. They were happening in communities that were often historically disadvantaged or had pollution issues. That's because we have a whole program focused on repurposing existing infrastructure - we're going to places that lost a coal plant. Almost by definition that was a coal town. And now we're building a manufacturing facility or we're building clean energy and bringing it there because it has transmission, water, roads, a workforce. The community is keen to bring those jobs in - that's great that ticks all of our boxes too.

So we start with: can we invest in a successful project—one that gets built on time and on budget? That means that the community necessarily is involved. When you do all those things and you step back, we have found our track record of achieving those broader goals is met as well.

Q: So if you take LPO under the Biden administration—how would you characterise the key differences in approach or mechanisms compared to previous iterations?

LPO spent about a decade without a permission structure to make new loans. That's a big difference. In terms of the structural changes that we've made, we've done a lot organisationally to set ourselves up for scale. When I joined, we had around 80 people; now we're at about 350. We've got an entirely new operating model.

We categorise loans and applications coming in by type of loan, so if a project has a parent guarantee from a company with a good credit rating, we don't need to do the same level of due diligence as with a growth company where it's the first time anyone's done this thing and it's barely hanging on. We're just as excited about financing those projects — even more so, because those guys really need us. Not to say the others don't need us, but if they don't have a parent guarantee, it necessarily means it's going to be trouble for them to get that low-cost capital. So we've done more to segment our deals coming in.

We made a decision to pull forward the timeline for “conditional commitments.” If we can give a conditional commitment to a project earlier—with all kinds of conditions that they need to meet before we can close—then they can take that conditional commitment to the market. They can say, “Look, we've got \$1.5 billion lined up from the LPO once you sign on the dotted line.” That gives other stakeholders in the mix confidence and we've found that can speed the process up.

It's a number of incremental improvements to a process. But if you look at our track record, our initial rating of our portfolio a decade ago would have suggested that we might have had more than twice the expected losses than we ultimately realised. That's because projects performed better and because of the quality of portfolio management by the team. This is a program that was run well and has been very successful in the

past and we were building from a strong foundation when we went out to build this next thing.

Q: You went from 80 to 350 people. Was that a matter of rebooting existing capacity or bringing in a whole new toolkit and set of capabilities into government?

I wouldn't underestimate the power of having existing processes and experienced people who already know the ropes. At LPO, we actively created a healthy tension between new talent and existing expertise. We brought in a lot of folks from the private sector—myself included—and they brought a set of skills, and expectations that were very healthy but sometimes in tension with existing processes. That's a healthy tension if you manage it right. You want some folks asking, "How do we go faster and bigger? Why can't we make this thing work? Show me the rule that says we can't do this." That's healthy. It's also healthy having someone on the other side saying, "Here's the rule" or "You're right, there isn't a rule." You can't just rewrite the whole thing, there are guardrails for a reason. I think we've mostly been able to maintain that healthy tension.

In the last six months it's really ratcheted up. It took us a couple of years to get the thing in place but we're doing three deals a month now which was a dream of ours two years ago. One of the things that we're seeing is that our borrowers, because of the pending change of the administration and some of the uncertainty that is associated with that, are very motivated to get these deals done. It's actually often borrower motivation that is the thing that drives the deal timeline more than us.

Q: You used the phrase "private-sector-led, public-enabled." In practice, how do you design deals so that they really crowd-in private finance?

It's a great question. I'm going to give you a slightly long-winded answer because I don't have a perfect encapsulation. I think there are three or four elements:

First is there are a whole range of tools you can use to crowd in private capital. We provide debt, but there are also grants, tax credits, prizes, and demand-side tools. We actually drew a lot of inspiration from the UK when we were designing our demand-side model for hydrogen. Depending on where the technology is - and the state of supply chain, talent, capital markets, insurance markets - different tools are relevant. It's not homogenous. You can get a lot more bang for your buck depending on the technology by using different tools - if you're thoughtful about it. That's where having private-sector input is so important to know which tool to deploy to maximise taxpayer dollars.

The second thing when you look at specific technologies, one of the things that the government misses is the timeframe that is needed for support. Having the ability to be flexible around a timeframe but making it clear that it is a timeframe. To give the example of geothermal, this was a technology that received limited support through the

IRA and BIL. That is a choice that was made in Congress. But this is a next-generation technology with a steep learning curve. You could imagine in a decade or less this technology will be competitive with anything else on the grid. You can therefore imagine designing policy where you say for the first 3-5 years the subsidy framework is X, after that it's Y, and beyond that it's on its own.

Third, the reality is that policy makers must care both about the specific projects getting funded, and about the overall trajectory of the technology and sector as a whole. The LPO invested in the first five utility-scale solar farms in the US in 2011/2012. That is now a trillion-dollar business. That's what you want to see.

For the U.K., there's another layer. The US has an advantage of unparalleled market depth, so we may prioritise less than we should. The UK is likely getting quite strategic about prioritisation within competitive global supply chains. There needs to be recognition about where you want to play so that you can compete and win.

Q: So if the IRA never passed and instead of \$400 billion you had just \$50 billion, how would you approach prioritisation? What framework would you use to prioritise?

I would do debt over grants most of the time. The LPO is technically cost-neutral to the government, other than the subsidies that are associated with our programs. We can get tens of billions of dollars of loans out the door with a little bit of subsidy. With grants, the earlier you are in the funnel from an R&D standpoint the more bang you get, which is why it's so hard for some of these big first of a kind projects. If you are going to put grant dollars into a big first-of-a-kind project—\$100 million instead of \$1 million— you need to be very strategic about where those big grant dollars go from a tech or sector standpoint.

And then there's the demand side, which is a place where we've learned a lot from the UK. For example, by creating off-take certainty through advanced market commitments, the public sector can stabilise and encourage market expansion even prior to any funding dispersal.

Q: Given everything you've said, if you reflect on these past four years, what would you hold up as the biggest positive lesson to take from the US's approach to the energy transition or the broader economy?

I'll offer a specific lesson that could be relevant to the UK. The UK doesn't have an LPO—an entity with real risk appetite lending into emerging clean energy technologies. The demand for our program is astonishing: we have \$320+ billion in our pipeline. We could work our existing pipeline for the next four years. That is a really powerful tool that the UK doesn't have.

Q: And if you wanted to “activate” a U.K. equivalent right away, bearing in mind the LPO was dormant for eight years, what’s the one thing you’d do?

Two things. First, look at your existing lending programs like the UK National Wealth Fund to see if you can tweak the risk framework to allow them to lean into risk. Second, get the right person in place with the political cover to do it.

The U.K. has many advantages—the UK’s views on climate, clean energy, clean tech have been very consistent. You are in many ways a model for the rest of the world for how to do this. You view it as a trade advantage, you view it as a competitive thing - these are the technologies of the future - and the momentum should be there.

One of the theories behind the IRA is that you’re not just buying down the risk for these new technologies, you’re also creating buy-in and focusing on the political economy of the investments. You’re creating special interests and communities that have a vested interest in these technologies being successful. That’s how you start to create an incumbency advantage for these new technologies. I don’t think we’ve fully seen how it’s going to play out, hopefully that’s going to start next year. I hope a lot of these debates in the US are going to become less forceful - it’s going to become “we’re building affordable energy, we’re building the best cars” vs. “we’re building renewables” and “we’re building EVs”.

Obviously, there are things you can’t control, but I do think there’s a very positive story here if you can get the right public sector institutions around it. But I will say if the UK government is choosing what sector to target, you have to be thoughtful. Because if the private sector is not leading, that’s where you might run into trouble. It’s hard to get out ahead of some of these industries, otherwise the government and the taxpayer wind up holding the bag.

ENDS

Interview with Jonas Nahm (Senior Economist for Industrial Strategy on Council of Economic Advisers under President Biden)

Jonas Nahm was the Senior Economist for Industrial Strategy on the Council of Economic Advisers at the White House between 2023 - 2024 under President Biden. He is currently an Associate Professor at the Johns Hopkins School of Advanced International Studies (SAIS).

Interview conducted 10th December, 2024

Q: How would you characterise “Bidenomics”? What would you say are its objectives, and how would you say it has performed?

I think Bidenomics was something that evolved over time. The branding came after a lot of the policies, so I’m not sure if that’s a helpful way of thinking about it.

There was an attempt to reindustrialise in the Biden administration that was a shift from past administrations. You saw it in the Bipartisan Infrastructure Law (BIL), the CHIPS Act, the IRA, and a lot of trade policy. It was essentially an attempt to come up with an answer to the “middle of the country,” learning from the first China shock, the Trump election and the economic grievances people had.

Then the branding came - “from the bottom up, middle out”, “Bidenomics” — I don’t think that was necessarily super helpful because it didn’t describe what the policies were about. There was a problem of not selling the shift properly.

It’s really difficult to make your core economic policy an industrial policy for manufacturing in a context of an economy where only 7%–8% of the population work in manufacturing, and people don’t necessarily want to work in manufacturing. Why this shift is important and what changes it embodies needed to be sold in a way that is not just manufacturing and construction investment. That didn’t really happen successfully. In terms of setting out to get manufacturing investment, it was successful. We’re just not seeing jobs results yet, and we may never see them. Reindustrialisation is working, but manufacturing has also changed a lot. There’s a nostalgic, Joe Biden element to all of this where the way people thought about it was the manufacturing of his youth, but it’s pretty automated now. It’s still important, but it may not yield the jobs impact that people were hoping for.

So, there’s the branding element, and then the actual shift and focus on reindustrialisation. The reindustrialisation part worked. The branding and “selling” didn’t go so well, and there were conceptual issues with how to think about manufacturing and what the expectations actually were that could have been communicated a little bit more clearly.

Q: What is the best economic case for the push on reindustrialisation?

I think the policy objectives were essentially to reverse a longstanding decline in domestic productive capacity and to address rising inequality in the domestic economy. There was an implicit criticism of corporate outsourcing and offshoring, and concern around at which point missing domestic manufacturing capacity also has an impact on the ability to innovate domestically. In other words, is the longstanding separation of production and innovation sustainable forever?

But the objectives also changed over time. “Build Back Better” was a lot more expansive than what actually came through reconciliation in these bills. I think, especially in Europe, there is an underappreciation of how constrained these bills were—how they were passed and were getting around the filibuster, what you could and couldn’t do in reconciliation. For example, labour provisions fell out of the IRA. That was part of these original objectives but didn’t make it into the final bill. In some ways, the IRA is also hamstrung by the political system.

It is worth separating out the objectives from what was politically possible. In drawing lessons [for other countries], keep in mind what those objectives were originally, rather than thinking this was the best possible bill—it was just the best possible bill that could be passed here at that particular time.

Q: Other than reindustrialisation, what goals were pursued to reduce economic inequality?

It was all over the portfolio. There was the environmental justice side, the energy-community side—a lot of place-based policy about redirecting investment to certain areas. There were things beyond those three core bills, but those were the core. It’s also worth noting that there are different objectives for different pieces of the portfolio.

For semiconductors, it was about a national security objective that was part of the U.S.–China conversation. Reindustrialisation and building domestic chips was part of the security agenda.

For the energy transition, there was huge concern that the transition would basically be a second China shock, losing a bunch of jobs in the transition to EVs, so these bills tried to ensure you would not have that negative economic impact.

Another objective was building political coalitions around climate policy that were economically based—anchoring climate in Republican districts. That’s more like a legacy objective, making these things sticky and trying a different path to decarbonisation to the carbon-tax path that was tried and unsuccessful in the US.

Q: What's your view on the effectiveness of macroeconomic policy coming out of the pandemic? Did the American Rescue Plan Act get the quantum of investment right?

It's the inflation trade-off, basically.

There was a lot of debate about this. People love to debate the relative impact of supply-chain constraints versus domestic spending.

I think in some ways it would have been helpful to communicate the trade-off differently: just say the way this works is there's a trade-off between inflation and employment. We consciously made the choice that your eggs could be a little bit more expensive, but you'd have a job to pay for them.

That's not how it was communicated. The White House basically said there was no inflationary impact from recovery spending, and then got into these arguments with folks like Larry Summers that from the outside were saying well there was an inflationary impact.

That wasn't a helpful fight to have, maybe it would've been helpful to take the hit and explain why and not get bogged down in the arguments around whether it was 60% supply chain, 80%, 40%, etc. I don't think politically that was a helpful argument to have. Economists will battle this out for a long time quantitatively, but the ship's sailed now.

Q: How much do you think, in retrospect, the Biden administration's narrative will be about macro management versus supply-side reforms?

These things were passed as they became possible. The macro stuff was anchored early and then you shifted to these micro bills, which no one thought were implementable initially. It was sequential; taking advantage of political opportunities. How you judge the relative importance depends on who you're talking to. Climate folks will focus on the micro; macro folks will focus on the macro.

The interesting part is that, despite running the economy hot with low unemployment and success on macro and micro dimensions, it didn't really ring true to people. There wasn't this sense that the economy was doing well, which is an interesting conclusion across the board - regardless of which part you focus on, the people that you needed to vote based on this did not come out to vote. There was a bit of a dismissive attitude in the White House that people were not recognising these policy efforts. There was such a focus on economic inequality and White House people had felt like they had done the work. But people still felt it wasn't working for them—both macro and micro.

Q: Did macroeconomic policy drive the strong resurgence of growth and dynamism after the 2020 recession, or was that a result of US economic fundamentals?

I'm not sure I have a good answer. There was a lot of money sloshing around, and part of the inflation issue was that there were not a lot of places to spend it. That may have played into business dynamism because there were customers to be earned at the time. But there was also an incredibly stuck housing market, with people feeling squeezed by interest rates and high prices and an inability to move, so you had both. There was a sense from people that they were stuck in their house and unable to move and so this dynamism that was happening elsewhere they couldn't necessarily take advantage of it because they couldn't really change their situation.

It's often always regional, too—even if there's lot of housing and business creation in Houston, if you still own a house somewhere that you can't sell or that makes you shift from a 2% mortgage to a 6% mortgage, that perceived experience is very different than if you are already in Houston you can actually leverage these economic gains. There's always a regional dimension to the US that came out here as well.

Q: To what extent can we explain the U.S. growth over the past four years by policy decisions, and would the underlying strength of the U.S. economy have delivered a similar result regardless?

You can compare it to the Great Financial Crisis and the slow recovery back then. The fundamentals were not all that different: consumer spending was also just under 70 percent of GDP back then and consumers had less to spend so they didn't recover as quickly. That's probably a pretty clean environment to say the policy environment made a difference.

But if you compare it to the European situation, there are aspects brought out in the Draghi report that are helpful for the US. A lot of the differences are tech and tech has been in the US for a long time. There's a tech infrastructure here that doesn't exist in Europe that has grown out of the defence apparatus in the '50s and '60s in Silicon Valley. Tech and AI booming over the last three or four years - is that because of policies now or is it historic? The Draghi report is basically saying we're missing this tech base and the US has it. Part of this is policy and part of this is layered investment over time by the government and the private sector going back over decades that you can harvest now. So that's less directly "Bidenomics," but also part of the story.

It's also part of the inequality story— it's not like the whole economy is having this breakout development. It's certain sectors that are regionally very concentrated that are affecting the overall picture, but are experienced very differently. I'm in San Francisco right now, where people say the city's dead while they're drinking \$16 lattes and making \$500k in tech. I think your idea of catastrophe is very relative to the local situation.

There is an interesting comparison between the Europeans and Americans. The micro bills in the US weren't strategic in the way that the Draghi report lays out a strategy. They weren't very focused on particular sectors with a clear, underlying theory on which sectors could become competitive - how you would take away tariffs and subsidies at some point.

Because of the constraints of the bill, knowing this was a once-in-a-generation opportunity, there was support written into this for almost every clean energy sector. It wasn't this fine-grained analysis looking at which sectors we do and don't need to support. The Draghi report lays out a strategy for making those decisions. Europe has the opposite problem. The Americans have an industrial policy without a strategy, and the Europeans have a strategy without a pathway for implementation.

Q: Is that because Europeans were fiscally constrained in a way the US wasn't?

That's part of it, but we're maybe overplaying them.

If you look at the NorthVolt situation, they received \$20 billion in investment. So it can be done (though, in that case, it still failed). It is not like Europe cannot have these big projects—Airbus is an example where it did work.

Fiscal constraints are a little overplayed, and there are other ways of doing it.

In some ways fiscal constraints might force you to focus more, which can be helpful in restraint rather than the broad watering-can approach. It's about figuring out where to invest and where there is a pathway to competitiveness without eternal subsidies.

This is less important in the US context but there is a political fallout from this because not all of these industries will be successful and so then eventually Bidenomics will be seen as having spent a lot of money on things that did not work.

It's either that or we'll double down and keep adding more tariffs so that these things will work and we'll hide the fact that everyone is now paying a lot more for everything in order to keep these uncompetitive businesses alive.

Q: How innovative is the approach to place-based policy—CHIPS Tech Hubs, Engines, hydrogen hubs—compared to previous efforts?

In some ways, the U.S. is catching up to Europe's structural investment approach that it has had for a long time.

In Europe, this is very systematically measured on relative local economic capacity. If you think about Portugal or Ireland or Poland, there are essentially entire countries that are built around place-based policy in Europe.

The U.S. never had such a thing - there's never been large scale transfers based on that logic. The largest federal transfers are entitlement programs that give lots of funding to places like Florida where old people want to move based on taxes paid in the rest of the country.

There are very different place-based policies within the Biden administration.

There are ones very specifically targeting inequality or future inequality—like manufacturing conversion grants that try to bring battery manufacturing close to the existing auto manufacturing centres. We know people can't move because of the housing market, so we need to find pathways for them to transition locally. In the same way, the energy community programs focus on certain places that need additional incentives for investment.

There is also creative repurposing of these place-based programs. When we didn't have enough financial support for the offshore wind we rewrote the rules so that all ports are part of these energy communities to squeeze out additional tax credits for wind. But other programs, like hydrogen hubs or semiconductor clusters, aren't primarily about inequality; they're about agglomeration economics and coordination challenges in these new industries. We don't really have demand for hydrogen and we've invested a lot in supply. We also need to figure out the technological challenges around shipping it. So we need to create a hydrogen economy around certain centres of production.

These are chicken-and-egg problems that require place-based solutions but are not solutions to inequality necessarily. It's important to separate out these different place-based policies and none of them have the systematic overarching objective like European structural investments that are driven on a continental scale by regional inequalities.

Maybe European investments are on a smaller scale - it's less money than the US can spend - but they are certainly a different approach, much less ad hoc and much longer term.

Q: And looking at green industrial policy, has the administration simply resurrected moribund parts of the government, or is the bigger story one of entirely new policy mechanisms?

There is a general theme here that the U.S. does not have targeted state capacity for industrial policy investment.

It's not like we've never done industrial policy, we've done it all the time, like the military, DOD etc. But we don't have an industrial policy bureaucracy at the federal level. There's not a clear agency that is charged with this, there is no possibility for formalised feedback like Japan and Korea had with performance metrics and an agency in charge of collecting data and firms having to pay back funds or wouldn't get more support if they didn't meet those metrics. We don't have that.

Instead, the theme is repurposing existing institutions. For instance, we used trade authorities from the 1960s and 1970s for tariffs on Chinese products. The formal mechanisms in the trade space are very old and we're now repurposing them for the current moment. We used the Defense Production Act for green industrial policy.

The LPO was an existing institution, now repurposed as a manufacturing bank because we don't have a Fannie Mae for manufacturing. Treasury guidance is supposed to be about IRS rules but is now becoming the key tool for adjusting industrial policy and making sure it actually works in implementation. All these things are capacities created for very different purposes that are being reworked now for industrial policy creation and implementation.

Q: Is there a risk that, if the US doesn't have a dedicated capacity or a specific focus, it's more likely to fail (as agencies end up juggling multiple objectives)?

"Fail" relative to what? It won't fail compared to not doing anything. It's going to be less efficient and targeted than if we had a whole different system, but we don't.

In terms of drawing lessons for other countries it's important to contextualise. Maybe in the UK you can't do the fiscal stuff but you can do other things that aren't possible in the US. You have the Crown Estate, you have out your own idiosyncratic institutions in the UK that you can repurpose.

Sometimes the conversation is so literal where people go, "OK should we also target green hydrogen". That's not really the conversation we should be having. Let's do an assessment of all the crazy, weird, odd institutions we have and how we could pull them together for something new and important. That's a more interesting and productive conversation.

There are real questions about policy stability in all of this where there are real trade-offs. We needed the Treasury guidance because in the bill you couldn't get into that level of detail and, given how difficult it is to change legislation with these slim majorities in the US, you needed to have the ability to adjust policy somewhere. In this instance it was using Treasury guidance to redefine what a component is, what a raw material is, what domestic tax credits means for EVs and so on.

There is a pathway of changing that over time and if it turns out the local content requirement is so strict that no cars apply you can use Treasury guidance to change it without having to use the whole mechanism of Congress again which is basically impossible. It also makes it more likely for a future Trump administration to change the same rules to make most cars ineligible for the support.

But I still think the flexibility was important and maybe in the next Democratic administration we can change the rules again - so there is a trade-off between policy stability and flexibility, but in some cases the flexibility is so important that it is worth giving up some longevity to get it right in the moment when you do have some control.

Q: Is the Biden administration's economic agenda coherent given apparent tensions between e.g. tariffs at net zero? Does it matter?

All of this is happening within the context of shifting attitudes in the US on China.

China is being used to motivate policies which don't really have anything to do with China - for example we got the IRA as a strategic competitive bill within the context of competition. But yes we then also get tariffs that make things more expensive.

To some degree I think that is important. If you are going to make domestic investments in climate policy then you need to protect those investments to some degree.

Do I think we made smart decisions about tariffs? No. I think it could have been a lot more targeted. The tariff rates are random - why is it always 100 or 150 when the analysis shows it should be 38.5? There are very specific ways of determining tariff levels that you can see in the European Union where they have much more of a rules-based mechanism.

Am I worried that we're over-protecting industries because politically it is very hard to take these things away? Yes. A strategic determination could also help us decide which sectors are protected or not. This dynamic of having lots of investments in lots of industries and no one wanting to be responsible for them going bust means that there's likely going to be more tariffs even in a future Democratic administration.

It also would have been easier to make this argument if Biden had taken some of the tariffs away that were really unrelated to reshoring - we're never going to make baby clothes and Christmas lights in the US, so why do we have tariffs on them? That sort of differentiation would have enabled the administration to make the case that we used tariffs instrumentally but we basically kept all of the Trump tariffs and then just added some.

It's very hard to make the argument that the tariffs are strategic, you basically have to blend out all of the tariffs that we didn't take the opportunity to lower or take away. So, yes, it is incoherent in a way, but I think it all boils back to this central point that we didn't start with a strategic document like the Draghi report and then adjusted everything around it. That's just not how it happened. It's also a symptom of the political situation where you needed to use the US-China competition to motivate a lot of the domestic policymaking. Then you have US-China competition built into this policy process, whether it's helpful or not for actual implementation and reaching your goals.

Q: Do you think it was a mistake to claim there was such a thing as "Bidenomics"?

Speaking personally, if I go to Thanksgiving with family in Wisconsin, they can't tell me what Bidenomics stands for and why this is helpful for them.

As a communication tool it certainly failed. It is a little bit disconnected in a way, this idea that we're now dealing with regime change and paradigms rather than actually getting the work done and communicating with people what it's doing for them. I don't

think most people want to talk about paradigm change. If your eggs are more expensive, people saying “Well we have Bidenomics” doesn’t relate to people’s concerns. It’s a very D.C. thing—people wanting to create an alternative to neoliberalism. Most people don’t know what neoliberalism is either.

There’s a fundamental decision about whether you want to brand policy approaches like that if that branding is not helpful to folks. I don’t think in general people think about the economy as a paradigm, they think about it as a series of prices they encounter in everyday life. But I’m not a communications specialist, I’m just watching this with my own personal views.

It’s a little bit “show don’t tell” - if you can show us where these policies have made things more affordable for people or made a difference in people’s lives that might be more real for folks than big statements about economics.

I also don’t think Biden was a great communicator. Maybe Obama could have pulled off the Bidenomics trick and laid out this grand narrative for it. Biden wasn’t laying out a grand narrative for anything. I think he would have been better off talking about concrete things. But I don’t know who came up with Bidenomics and haven’t done too much thinking about it.

Q: Given all we’ve discussed, how would you sum up lessons from the US experience over the past four years for an economy like the UK?

Search for institutional peculiarities and build on them.

Look at the industrial advantages you already have—don’t do a broad-brush “laundry list” of technology approaches that the US does. There’s a way to be much more strategic about what the impact should be.

Finally one thing that we didn’t talk about enough in the US but we should have talked about: if you have a fairly deindustrialised economy and your core economic argument centres on manufacturing, you’re not going to reach a lot of people. If you want jobs to get better for most people you have to have a services industrial strategy too.

In the US we didn’t really talk enough about how we’re going to improve the jobs we do actually have, rather than selling the prospect of jobs that weren’t going to be real in that term. There’ll be jobs next year, but given how long it takes to construct a plant we knew there wasn’t going to be a jobs miracle.

I think focusing on the service sector and having a service industrial policy would be helpful - whether that’s the financial sector, installation and maintenance - talking about good jobs in these other sectors is something that fell under the table here.

Q: If we were to take industrial policy tools and apply them to services, how might we do that?

We did a lot of pro-labour work, but the way we did it was all targeting manufacturing labour. There's labour in other sectors too—so whether that's minimum wages, other guarantees, training for high-skilled jobs, workforce development etc. There are a lot of parallels across sectors; it just depends on where you're applying them.

Whether you're talking about government procurement or low-cost loans - it doesn't have to all be tied to production. It could be software in these sectors. Thinking a little more broadly in that sense would be helpful in a place like the US that has a diminished role of unions and a decline of the sectors that unions used to be strong in.

Q: What's the major positive lesson from the past four years?

I think the stickiness is going to be helpful in the next administration, given that a lot of the investments went to Republican districts. That wasn't a strategic decision since tax credits are neutral and this was not place-based policy. But in a House with a five-seat majority for the Republicans it's hopefully going to be hard to pull a lot of that investment away. The strategy of switching to investment-based policy is not perfect but going to be better than alternatives. I'm hopeful that is how things are going to pan out.

ENDS

Interview with Julie Su (Assistant Secretary, then Acting Secretary of Labor under Joe Biden)

Julie Su was the Acting Secretary for Labor under President Biden between 2023-2025. Prior to serving in the Cabinet, she served as the Deputy Secretary of Labor, and before that as the California Labor Secretary under Governor Gavin Newsom between 2019-2021.

Interview conducted 13th March, 2025

Q: How would you characterise Bidenomics? What do you think its objectives were, and how do you think it performed over the four years?

Let me first say, I don't think that we had enough time to truly evaluate what the impact would have been, and that's unfortunate because what we did see was pretty significant shifts fundamentally in some of the primary goals that we had—good job creation, equity, economic growth.

Just to answer that one off the top, I think it's too convenient for some people who disagreed with the policies to cite where it ended as the end. It was far from the end. We all said, and it was very true, that we had a lot more work to do. What we were trying to do was going to take more time than four years, and we knew that.

I would say that rather than one single policy, Bidenomics was fundamentally about reimagining what was possible in our economy. It was a rejection not just of the more conservative idea of government staying out of things, but also of the neoliberal idea that government should take a back seat. Fundamentally, it rejected trickle-down economics. The idea was to build a “high road” to the middle class while also combating the “low road”, and you needed to do both of those things in tandem.

One other important aspect was strong unions. Building the “high road” meant recognising that we didn't just need jobs, but good jobs. We weren't agnostic about the quality of jobs created and that meant supporting unions and union power. What does that look like in practice?

First, a President that clearly and unapologetically embraced the benefits of unions, not just to their members but to the economy and the country as a whole. “Wall Street didn't build America, the middle class built America, and unions built the middle class” is something President Biden not only said over and over, but something he believed deeply and that was fundamental to our vision.

Second, the tighter the labour market, the more worker power we built - which was good for the economy. Workers had choices. The “great resignation,” where workers left jobs for better jobs, and other phenomena reflected this. A tight labour market also

strengthens unions' ability to organise and bargain for better contracts. One way to achieve this was through historic federal investments that resulted in job growth that far exceeded expectations.

Third, we believed in collective bargaining and showed that through our actions. As President Biden's Labor Secretary, I showed up at the bargaining table time and time again to help ensure a fair contract that valued the workers—and I made it clear only the workers themselves could decide whether a contract was fair. We didn't interfere in ways past administrations did, nor did we curtail union power. We helped workers achieve historic contracts that lifted up not only union members but also the sectors, industries, and regions they were in.

And fourth, we leveraged federal dollars to build strong American industries that create good jobs and support communities, particularly lower and middle-income Americans. This was the concept of building an economy from the bottom up and the middle out. Implementing the signature legislation of Bidenomics—infrastructure, clean energy, manufacturing, and CHIPS and science—was about not just getting the money out, but attaching standards to ensure those who had been left behind benefited. We implemented project labour agreements in construction and community benefits agreements in loans and grants to make sure investments actually reached those who needed them. This was a generational investment in industrial policy, building up industries that would be the drivers of good jobs. Whether due to policies of the last 40 years that devastated those industries or because of underinvestment, we aimed to address both.

Bidenomics rejected false choices, such as having either strong industry or good jobs, or combating the climate crisis at the expense of good jobs.

Once we had those good jobs, who got them mattered. Without being intentional, the same people who have been left out before would be left out again. We rebuilt physical infrastructure while also building other kinds of infrastructure — the roads and bridges that connect people to good jobs and employers to the people they need. I called these roads and bridges our nation's "opportunity infrastructure." Local hiring was a key part of this effort — making sure people who lived in the places where investments were going had onramps to the jobs.

There is a deep racial divide that we refused to ignore. Black workers in this country live in states with the weakest labour protections. Every Confederate state is a so-called right-to-work state, where unions are weakened and almost all of these same states have no minimum wage or a minimum wage set below the federal minimum wage. Addressing this divide was intentional and hands-on, and often involved working directly with mayors to build opportunity infrastructure in their cities.

And finally, combating the "low road" economy was equally important. If you constantly have a "low road" economy, it pulls the "high road" down. This meant we enforced labour laws, collecting over a billion dollars for workers whose wages were stolen, and

addressing unsafe working conditions. For instance, we had 13-year-olds working on the kill floor of meatpacking plants. This is a “low road” practice that fuels a “low road” economy if it’s not addressed.

Bidenomics was not a single policy but a combination of all of these—embracing strong unions, creating good jobs, promoting industrial policy that led to equitable outcomes, using historic federal investments to drive these goals, and intentionally measuring success by the impact on marginalised communities, communities of colour, and exploited workers.

Q: Would you say that the Biden administration had a fully developed agenda from the start, but failed (for political reasons) to deliver on aspects like the care economy and labour relations? Or that it did broadly meet its goals? Or that there was no single pre-designed programme, and ‘Bidenomics’ was largely improvised?

I think there's truth in all of those. I often think about what could have been if the full agenda of Bidenomics had been passed at the outset (in 2021) and what we could have delivered. There's this whole question we were confronted with throughout the administration of why people didn't feel it, if our policies were working — they would have felt much more if the entire agenda from the beginning had passed, from the expanded child tax credit to the care economy to addressing significant barriers to union organising.

But I also think it's very important not to bemoan what did not happen, but to utilise the full powers of what you are given when you have them. And we tried to pursue elements of our overall agenda in other ways, though without the investments that needed Congressional approval, we were obviously unable to give those aspects of the agenda the resources required. But we focused on expanding access to care and improving care jobs through infrastructure and manufacturing, which did pass, and we used other funds, including funds that were not part of the bills, like Workforce Innovation and Opportunity Act (WIOA) money, which we used to build the opportunity infrastructure—not a bunch of disconnected training programs for skills that might be needed for jobs that might materialise, but an interconnected system where training ended in good jobs and included support for things like childcare and transportation, the absence of which have been significant barriers to employment. In other words, the full story of what we did is not just told through the bills President Biden signed but also the ways we used existing powers and resources to fundamentally reshape the economy by putting workers first. We used every lever we had to build up this infrastructure, recognising that roads and bridges to opportunity, roads and bridges out of poverty, are as important as physical roads and bridges, and they require the same level of coordination, planning, and bringing people to the table who have been excluded. This included make sure people were getting pathways into registered apprenticeship programs, given uniforms and tools — things that concretely give people the ability to transform their lives. We used that power. We improvised where we had to and learned along the way, including about how to best partner with state and local leaders. To build

this workforce opportunity infrastructure, we created a Good Jobs Alliance of cities with visionary mayors who understood that jobs had to be good jobs and access to them had to be real for all communities.

And then, I think this is where the "we didn't have enough time" comes in. Some people still say the early investments, especially the American Rescue Plan, were too big and caused some of the economic problems, like high prices, that we had a hard time moving past. But the other realities of Bidenomics were that real wages did go up, especially for lower and middle-income individuals.

People's sense of security and affordability is twofold: the price of things and what people make. The numbers don't lie — wages outpaced inflation. But it wasn't enough to overcome the COVID hangover. People felt like the bottom could drop out again at any moment. Plus, working people have been falling behind for 50 years. Getting their wages up a little now wasn't enough. A truly good job and a secure life are about more than just paying rent; it's about being able to go to the doctor without breaking the bank, retiring with dignity, coming home with energy to play with your kids, taking weekends off, and having paid vacation. We don't have enough of those things.

But the policies and investments — the idea of building the “high road” while combating the “low road” — moved the needle significantly. Wages increased, racial inequities shrank, the Black-white unemployment gap was the smallest it's been, and women were in the labour force in record numbers. We kept breaking our own record on these measures. Equity does matter, and inequity constrains growth. We saw proof of both.

Q: How important was the overall hot economy to support working power, compared to proactive policies (from the Labor Department or through conditionality on economic programmes in the Inflation Reduction Act)?

Very good question. I believe the proactive policies of this administration were critical to the overall hot economy—we see this from a comparison of our recovery with that of other countries from the devastating impact of COVID—but I'll add a third factor. You mentioned the hot economy pulling workers up, but I'd also say we were lifting the floor—raising the bottom. We called for increasing the minimum wage, something that requires Congressional action, but we also lifted the floor with the powers we had, including the first update to prevailing wage regulations (that benefit construction workers) in 40 years and an Executive Order requiring a \$15 minimum wage for federal contractors.

Another way of raising the floor is through the union piece. While unions represent barely 11% of the entire workforce and are much smaller in certain industries, we used that lever. We supported unions, and they capitalised on it.

Unions are more popular than they've been in decades, and the contracts negotiated, including the dozen or so I was at the table for, are historic. The UAW secured a minimum 25% wage increase with much higher increases for the lowest paid workers.

These increases led to a UAW bump in non-unionised auto manufacturing too. We saw similar progress in the healthcare industry, for flight attendants, and for longshoremen who secured a 32% wage increase on the West Coast and 62% on the East and Gulf Coasts.

President Biden's consistent support for workers, like his message to Amazon warehouse workers that the right to unionise is theirs alone, made a big difference. What leaders in power say matters.

Bidenomics wasn't just one thing. It was the National Labor Relations Board interpreting and enforcing laws with the strongest General Counsel the NLRB has ever had, refusing to invoke the Taft-Hartley Act during strikes, and advocating for fair contracts. When people claim we lost the election due to policy rejection, I say we didn't do too much— rather we didn't do enough. We were trying to overcome 50 years of anti-worker policies. Trade policy was part of that too, and we had a phenomenal US Trade Representative who made "worker-centred trade" the priority, but we ran up against a trade orthodoxy that has not put workers first for several decades. I do not believe our policies were rejected, I believe the timidity with which we pursued some of them is why they didn't resonate.

Q: You've said that there was too much emphasis on prices and not enough on wages in the media; and that there wasn't enough focus on economic security, like healthcare and reliable retirement. Were these the constraints on your economic message?

Let me put it this way: "What was Bidenomics trying to accomplish? What worked and what didn't?" Those are different questions from "what happened in the election?" On the first point, it's not just that we couldn't break through. People's sense of wellbeing depends on both prices and wages. But real security comes from more than whether people can afford groceries and gas. Working people haven't had the security they deserve for a long time. We were trying to reverse decades of anti-worker policies, but we needed to do more.

For example, under President Biden, we restored retirement security for millions of union workers whose pensions were about to collapse through the Butch Lewis Act. That was significant, but you shouldn't have to be in a union to have retirement security. The same goes for healthcare. Our job at the Department of Labor is to crack down on insurance plans who deny coverage for care illegally, including mental health care. But our enforcement authority is limited, and shrinking the federal government's enforcement capabilities would be damaging. I was always acutely aware that our enforcement work was critical, but for everyone who was illegally denied care that we could help, there were hundreds more for whom health care was too expensive, too confusing, too inaccessible. These are not messaging problems, they are real failures of our policies and politics.

I know you were trying to summarise, but I want to emphasise that we can't view these policies solely through the lens of the election. That diminishes their importance. It's not about perfect policies or flawless execution—we didn't have enough time to do everything. But if we had delivered on all of Bidenomics, we'd be having a very different conversation today.

Q: What would you say is the single biggest policy or innovation that you pursued that helped raise the living standards of low paid service workers (such as cleaners in Las Vegas hotels)?

I would say it was a combination of policies. Initially, the Rescue Plan aimed to put more money in people's pockets due to the crisis we went through. The idea was to establish a floor when the bottom had fallen out.

Additionally, supporting expansive union organising was crucial. In the case of Las Vegas hotels, there's a strong union presence that has made those jobs decent jobs with healthcare, job security, workload protections, and a voice in the adoption of technology. I was there when The Venetian, the last hotel on the Strip to unionise, celebrated its first union contract. It was amazing to feel the energy and pride of the workers, mostly immigrants and workers of colour. But it was also the energy and pride of the employer who understood that employees who were heard and respected were vital to a strong, successful business. I have seen this all over the country—that unions are good for workers and for business. Our support for unions was about putting workers first but also about how you support good employment practices and build the strongest economy possible. The right to organise is vital. We often talk about good union jobs in construction, and we definitely focused on that with our investments in roads and bridges, in clean water through replacing lead pipes and high speed reliable internet in all communities, but for service workers like those in hospitality, a union is their best avenue for economic security and the American Dream. The sense of shared prosperity that comes when labour and management sit together at the table to determine their collective future is one of the greatest benefits of a unionised workforce.

At the Department of Labor, we cracked down on union-busting. For example, we enforced a statute requiring employers who hire third parties to monitor or surveil employees during organising efforts to report that activity. We couldn't prevent it from happening (the practice is legal), but we could require that they be transparent about it. And we made that information public. These seemingly small actions had a tangible impact.

Moreover, although I've talked about the fact that the federal minimum wage is still just \$7.25 an hour, over half of the states have a higher minimum. And within those states, some sectors have an even higher floor. In California, for instance, fast food workers secured a \$20 minimum wage. Not all improvements come from federal policy; state and local policies play a role too. The way we approached that at the Department of Labor was to be clear: workers should receive the highest protections to which they're entitled. That means our Department should not be the primary enforcer if all we can get

workers is \$7.25/hour; we should work in partnership with state and local labour enforcement agencies, share information and collaborate so workers get what they earned under the most protective standard. And we should treat wage theft as the crime that it is by working with district attorneys and attorneys general to bring criminal prosecutions in appropriate instances.

In the American South, where manufacturing is growing—and this is not by accident, since the desirability of the South is closely tied to weaker labour laws, hostility to unions, and a more exploitable workforce—we really focused on supporting workers in this part of the country. We focused on leveraging federal dollars to create good jobs and uplift those who have been excluded, including on the basis of race; we stepped up our enforcement, including hiring the first investigators in the Mississippi Delta; and we had Atlanta, Charlotte, and Birmingham in our Good Jobs Alliance. This approach helps lift standards in states that might otherwise resist such efforts.

Q: On industrial policy, where were those 'high road' examples of collaboration that other countries could learn from?

I'm glad you asked. One thing I appreciated was the collaboration within the federal government. Because of President Biden's commitment to workers, every department involved in implementing industrial policy investments had to consider their impact on workers. From the Department of Energy to the Department of Transportation and the EPA, there was collaboration from the top down.

The real impact happens at the local level. We created the Good Jobs Alliance, which included about a dozen cities or regions where federal investments were flowing and where local leadership was eager to collaborate. These regions adopted good job principles, and we worked directly with mayors, community organisations, workforce development boards, and labour unions.

For example, in Charlotte, North Carolina, we worked with the Charlotte Building Trades to make sure they benefited from federal infrastructure investments. We knew unions had to be at the table from the start. Same with employers and contractors who could signal where jobs would be. This way, employers and unions could work together to prepare people from the community in advance. It's too late to begin training workers once hiring begins,. And we brought in an organisation called "She Built This City" which focused on training Black women in construction trades. Together, they formed the Charlotte Regional Apprenticeship Collaboration which established direct entry for She Built This City graduates to a union apprenticeship. This was a win-win because the unions knew the people coming in would be well-prepared and it opened up opportunities for qualified women into trades jobs. In Atlanta, the same thing happened with an organisation called Georgia Stand-Up: its pre-apprenticeship program became a direct entry program into apprenticeships with the Georgia Building Trades. And the jobs wouldn't have existed without federal investments, so this is how all the pieces came together: federal dollars creating good union jobs and partnerships on the ground to

ensure those jobs were available to communities that have been excluded for far too long.

This effort wasn't one-size-fits-all. It was driven by local needs, but we brought everyone to the table, ensuring unions played a key role and marginalised communities were included. We now have a playbook of effective strategies, such as cities developing regional equity standards, communities coming together to expand access to care while lifting up care jobs, women-led organisations preparing women for jobs that have been closed off for too long, or unions agreeing to accept apprentices from community-based pre-apprenticeship programs. By working at the local level and rolling up our sleeves, we showed what can happen when the federal government is a collaborator and also a convener who makes sure that everyone has a seat at the table.

Q: Given that the Democrats lost the November 2024 elections, what do you wish you had done differently?

I think that the big picture is, I am certain that it's not that we went too far in these policies. It's not that the investments were too big, the standards were too high, or that we were too focused on workers or those who have been systematically excluded. It's that we didn't go far enough

Could we have put even more standards into funding so that when communities saw projects breaking ground, they knew not just that a new factory was being built, but also what those jobs would look like? I think so. There could have been more clarity about the quality of jobs we wanted and expected.

Of course, I wish we had a Congress that would have made it law. The struggle was to utilise the levers we had as the executive branch, constantly evaluating how much authority we really had. But where we did use it, it made a big difference.

As one specific example, the Department of Labor partnered with the Environmental Protection Agency (EPA), which had funds to transition from gas-powered buses to electric vehicles. As that money was going out, the EPA had school districts who would be buying the buses ask potential suppliers about working conditions for the people building the buses. It wasn't a requirement, but it sent a message. When the government asks questions about whether workers will be paid well and whether they will have the right to unionise, it shows what we care about. And we saw that influence supplier behaviour.

In Georgia, a school bus manufacturer called Bluebird, with a largely Black workforce of about 1,400 workers, was trying to unionise. The employer didn't resist that effort, and I believe the federal funds played a role. I worked with them to reach a contract within a year. This contrasts with what we see elsewhere, like at Starbucks, where it's been years and they haven't reached a contract, which is often a deliberate effort to undermine workers.

This example shows how different levers fit together. I wish we had been bolder about using all the levers to ensure meaningful outcomes for working families who just want a shot at doing more than just getting by.

Q: What would you say are the lessons from your experience for a country like the UK or a Western European country?

I think the idea of building a “high road” while combating the “low road” has lessons for everyone. There’s a “low road” everywhere. Just setting a minimum floor by law doesn’t mean everyone lives above that floor. Many do not, especially immigrant workers, workers of colour, and vulnerable women.

We need to genuinely enforce and raise that floor. Because when that floor is low, it drags everyone down. This is true for workers everywhere who work full-time, year-round, and still live in poverty; those who work two and even three jobs to make ends meet; those who can’t afford to live near where they work no matter how hard they try. Sometimes the most vulnerable workers are made vulnerable because of policies like immigration. If immigrant workers do not enjoy the protections of labour law, it creates an exploitable pool of workers that makes all workers less safe.

When I was at the bargaining table on behalf of President Biden, and unions were demanding higher wage increases, employers would often say, “This is so far above the market wage, we can’t do it,” or, “The union agreed to this low contract wage before, why should we change it now?” My response was, “Maybe we should question why the market wage or the last contract was so low to begin with. We’re not in that moment anymore.” I think the lesson that we cannot allow the floor to be so low that it brings everyone down is important. And that there is nothing inevitable or natural about the floor being so low. Allowing so much poverty is a policy decision. Failing to reward work is a policy decision. We can make better decisions.

The truth is, the US has much to learn from western European countries when it comes to unions. The US has lacked a commitment to strong unions. The ability of employers to interfere, coerce, and intimidate has driven extreme poverty and inequality. We need to learn from Europe on this. Reiterating the importance of unions and their benefits to the entire economy is always worth restating.

ENDS

Interview with Karen Dynan (Harvard University, Assistant Secretary of the Treasury for Economic Policy under President Obama)

Karen Dynan is a Professor of Practice in the Harvard University Department of Economics and at the Harvard Kennedy School. She previously served as Assistant Secretary for Economic Policy and Chief Economist at the U.S. Department of the Treasury from 2014 to 2017. From 2009 to 2013, she was vice president and co-director of the Economic Studies program at the Brookings Institution.

Interview conducted 21st January 21, 2025.

Q How do you characterise “Bidenomics”? What do you think its objectives were and how do you think it performed?

It’s been characterised in many different ways, depending on who you ask. It’s grounded in traditional economics to some extent, but there’s definitely more of a focus on inequality, mobility, and fairness than in previous administrations. That has manifested in various ways.

To start with how the economy unfolded under President Biden, it was a truly remarkable recovery from the economic disruptions associated with COVID. He deserves significant credit for that, although there were many other contributing factors. The recovery was remarkable both because the macroeconomy came back so strongly and because household-level outcomes were incredible, given the magnitude of job loss in early 2020.

I’ve done some work comparing household-level outcomes to those after the Great Recession. That was a very different crisis caused by different things, but it’s truly remarkable to see how sound household finances remained this time around. In many ways, outcomes were stronger after the COVID disruption than they were before, and the “before times” were already quite robust.

That was all pretty amazing, but it turned out there were costs associated with the policy choices used to fight the COVID downturn.

Let me talk about that aspect of “Bidenomics” before getting into the administration’s longer-term approach—like industrial policy. The first major economic policy change under President Biden was the American Rescue Plan. That package was partly shaped by the Biden Administration and partly by Congress. It was very generous. I had a paper that came out through the Peterson Institute for International Economics a couple of months ago that explores this. If you look at the amount of support in that package, it was more than enough—quite a bit more than needed—to fill what we thought was the hole in the macroeconomy.

It's fair to say that the package overdid it with fiscal stimulus. I want to stress that it did many important things to foster household economic security in tough times, and there were non-economic political considerations that shaped it. But when all said and done the fact that it overfilled the hole in the economy turned out to have some very negative consequences. One is that it costs a lot of money, so we have higher government debt now, which will create problems down the road. Just as important, in my view, is that it was a major contributor to the post-pandemic surge in inflation.

There's been debate over the causes of the post-pandemic surge in inflation, but I think it's just wrong to say, "it happened globally, so we can rule out country-specific policies." The drivers of inflation were very different in the US versus Europe. In the US, the big fiscal stimulus was a major driver. Idiosyncratic supply shocks also came into play—like the semiconductor shortage partly owing to bad decisions by automakers and other manufacturers in 2020—but by mid-2021, it was clear that the breadth of the inflation pointed to a broader demand story, not just a few idiosyncratic temporary supply shocks.

I've explored economic forecasts from that time, and you can see how people got it wrong. The Biden administration wasn't alone. If you look at the Congressional Budget Office, the Fed, or private-sector forecasters: all underestimated the inflationary impact of running the economy so hot. People had come to believe the Phillips Curve was very flat, so you could run a hot economy without creating inflationary pressure. That turned out to be wrong.

Another error in the thinking was not appreciating how costly inflation would be for Americans. I can say as an educator that I had spent very little time in my macroeconomic courses on the costs of inflation. I taught my students that when prices go up, wages tend to go up by similar amounts. But the focus was always on aggregate wages, and if aggregate prices and aggregate wages moved together over time, we could assume everything was okay. But the average wage masks big differences across the population. You see officials pointing to average gains - or wages in a particular group that went up a lot during this period—but many folks still come out behind in terms of real income. Inflation also created uncertainty and a heavy cognitive load for families trying to manage their finances. Thus, it's fair to say that prior to the inflation surge, the costs of inflation were underappreciated.

Q. A number of forecasters—at the Fed and in the private sector—didn't expect the eventual surge in inflation. Do you think that was a mistake by the administration that's only clear in hindsight or was it foreseeable at the time?

Just because a lot of people made the same mistake doesn't mean we should hold them all blameless. Economists in general should have been more cautious. There were people warning about inflationary pressures, so the administration should have weighed those views more seriously. Let me be clear: I don't know exactly what conversations were happening internally, but I assume they were similar conversations that the Congressional Budget Office or the folks at the Fed were having. I can

understand why they discounted the possibility of inflation, but ex post it was clearly a mistake.

If you want lessons for the future, it's crucial to listen and give more weight to voices challenging the conventional view.

Q: Could you expand on the specific ways fiscal stimulus and inflation have unevenly affected different households?

First, somebody needs to do a careful study of how many people ended up behind on real income. If such a study exists, I haven't seen it. But based on other evidence I've seen, it looks like there are many people across the income distribution who lost out when inflation rose.

Wages went up a lot, especially for people in leisure and hospitality because that's where the strongest labour shortage was. But we also know the big wage increases were associated with people who switched jobs. There are plenty of people in that sector who didn't change jobs for whatever reason, many of whom I suspect were left behind.

Then we have the Fed's response. Traditionally, we think tighter monetary policy hurts across the income distribution. But one of the very different things in this period was that a lot of people in the middle to top part of the income distribution were insulated from the increase in interest rates. Stock prices and home prices did dip for a while, but then started to rise and have more than made up for the earlier losses. Meanwhile, many homeowners had refinanced into low, fixed-rate mortgages and were insulated from higher rates. So people who are somewhat-to-very affluent were largely protected. Meanwhile, people at the lower end of the income distribution, with adjustable-rate car loans or credit card loans, have seen monthly payments go way up. Many of these people may have been renters too and faced rising rents as house prices went up. So you have to look at the distributional impact of both the inflation and the policy response.

Q. Some critics have questioned whether the universalism of the fiscal support to households in 2020 was necessary. Do you have a view on that?

I'm not against the fiscal stimulus—it should still be a lesson that we need to respond aggressively to recessions. I want to make that point clear. What happened after the Great Recession was terrible. It took almost a decade for the macroeconomy to be back on track, and many households had significant financial scarring from that period for many years. I don't think the lesson should be that we shouldn't fight recessions or job loss aggressively.

In light of that, the 2020 fiscal packages seem less debatable. It was a time when job losses were unprecedented, and uncertainty was tremendous. Even if the packages were universal, I think that those packages were the right move. Some argue it made no

sense to send cheques when the economy was shut down, but part of the logic was making sure firms felt confident that demand was going to come back once the virus passed. Back in spring 2020, many thought that might be in June or July. There was a good justification for stimulus early on to mitigate lay-offs.

By 2021, though, things were changing: vaccines were rolling out, the economy was picking up, with a significant if incomplete rebound in many economic indicators. That's when universalism seems more questionable—particularly the fact that the stimulus cheques were so large in early 2021 and that they were sent to people so high in the income distribution. That's the part we really have to question. I think it would be great to see more research on how we could have done better with the targeting of stimulus.

Q. Many point to America's highly dynamic labour market post-pandemic. Could a champion of "Bidenomics" say it was the stimulus that drove stronger wage gains at the bottom?

Yes, but I think those consequences came with costs. You can't separate the two which is why it's complicated. When we were debating policy in mid-2020, we had seen all this job loss and were looking at Europe, where workers had stayed connected to their jobs. People started asking hard questions about whether our system—which relied more heavily on layoffs, unemployment insurance, and a belief that people would re-match—was actually better. We often said the United States was more dynamic, so surely our system would be better than Europe's, but many of us were pretty nervous.

If you're asking whether strong labour demand played a role in making all that happen, I'd say it did. But I am not sure at all that we needed labour demand to be as strong as it was to get there.

It is too soon to say exactly what role US labour markets played in the productivity increase. I think we could have had pretty good matching and productivity results by turning the dial up but not turning it quite as far as we did.

Let me just say one thing broadly on productivity. If you consider the trend, we always see strong business cycle swings in productivity. When you net it all out, as of the end of 2024, we were only slightly ahead of where we might have expected to be, based on the pre-pandemic trend. We are ahead, which is pretty good after going through a downturn, but it's only a little ahead. So I'm not as effusive as the productivity bulls about where we stand.

Q. Another striking feature is the surge in business creation in the US, which hasn't appeared in Europe. What do you make of that?

It's been pretty remarkable. When I first saw the results, I thought it was a statistical anomaly, but at this point it seems real. The generosity of fiscal support deserves some credit. That's probably not the whole story—technological advances may have made it

easier to start businesses. But probably having some money was a necessary condition.

I'd put that in the category of one of the benefits we got from that stimulus. I've compared bankruptcy rates from the Great Recession versus the COVID recession. Bankruptcy rates now are still lower than they were before the pandemic, which is incredible. It's consistent with the higher business formation you're talking about. Still, I don't believe we needed it to be quite as generous. When we talk about people who didn't have the money to start a business but then suddenly did, that's generally the lower half of the income distribution. I still don't think that means we couldn't have targeted more effectively.

Relatedly, if you look at the projected path of federal debt from the Congressional Budget Office, it doesn't look much worse than before the pandemic. I think various factors fed into that—for instance, good news on healthcare costs and probably the surge in immigration. Business creation and dynamism helped directly by keeping incomes strong and were factors that also helped the stock market. Some of the good news on federal debt is also related to strong capital gains realisations that led to higher tax revenues. So when we talk about the financing costs of the stimulus, we should consider whether they are overstated if one just looks at the initial rise in debt.

Q. If growth, debt and productivity are more or less on the same trajectory as they were pre-pandemic, do you think the Biden years are economically significant at all or should we be focussing on the core US strengths that mean it is on a faster trajectory of growth than the UK and Europe?

That's way too strong. The early 2020s were very unusual for a lot of reasons but there are lessons to be learned. First of all, we overcame the huge economic shock associated with the pandemic. It's true that GDP might not look that different from what we originally projected, and the path of debt might not look that different. But we do see a higher price level, and interest rates look higher as well. Some of that is monetary policy, but even as monetary policy eases, we're going to see a materially higher neutral rate than we saw prior to the recession, partly because of the higher government debt.

Q. From a European or UK perspective, one could see the big U.S. stimulus as a success, or the focus on labour reallocation as a success, or maybe the big push on industrial policy as something to learn from. How do you see it?

First let me just say that bigger is not always better. Relative to what we did after the Great Recession, bigger is better. But comparing ourselves to Europe this time, it's not clear bigger was necessarily superior.

On industrial policy, we have a lot to learn. Economists had grown comfortable with simplistic talking points - like "industrial policy is a bad way to run an economy because it's about picking winners." The last few years have reminded us that we should approach the issue with more nuance. If we had been teaching it right, we would have

said that industrial policy is often a bad idea, but there are certain cases - infant industry, supply chains, national security - where it can be justified.

What we still need to learn is how best to deploy it. I don't think we have the answer to that yet. I suspect that when we reflect back on this period, we'll say that promoting advanced semiconductor technology in our country was a good idea. But we might question whether we should have coupled it with restrictions that made doing business more costly like childcare requirements or hiring unionised labour or training workers. Those are all laudable goals, but it's not obvious you want to couple those things together if your goal is raising semiconductor production. So I think we have more to learn about industrial policy, but I certainly think we shouldn't be as dismissive as we were six years ago.

Q. What do you think about their approach to place-based policy?

My own view—I know people are on both sides of this issue—is that it is important and constructive to put more focus on place-based policy and how to make it effective. I think one lesson from the last couple of decades is that certain shocks in an economy disproportionately hurt some areas more than others, and that the concentration of pain and disruption can cause a devastating setback in terms of the ability of the local economy to recover and, in turn, cause terrible socioeconomic dysfunction. That's another feature of “Bidenomics” we haven't said much about, but it definitely needs attention.

Q. What advice would you give to policymakers in places like the UK or Europe who are looking at US economic performance in the last few years?

If we start with countercyclical support, fighting recessions aggressively is important for individual households and for the economy as a whole. But at the same time we've learned you can overdo it with fiscal stimulus. When I talk to microeconomists they want to separate the fiscal support from the fiscal stimulus. They think I'm saying that support wasn't important. That's not it at all - the support was important to much better outcomes at the low end of the income distribution. But it is a lesson that you can overdo fiscal support and that also comes with significant costs, including at the low end of the distribution. Policymakers need to keep that in mind as they are crafting legislation.

In the future, we'd be well served—here and probably in other countries—to have more automatic stabilisers tied to economic conditions. They'd turn on when needed and, importantly, turn off when no longer needed.

I also think the questions about dynamism matter. My hunch is that the general dynamism of our economy - which doesn't only come from the pandemic policy response but also from other parts of our economy like our system of regulation - is a reason we outperformed other economies. More thought is needed in that area.

I'm not sure which approach to job losses is better. Our unemployment rate recovered quickly in the United States, but both the shock and the policy response were unusual. I do not know if European-style employee retention programs might be better than our system in different circumstances. We need more study of that issue.

How immigration fits into broader economic patterns is an issue that certainly wasn't discussed in real time and even now warrants more attention from researchers. It's not clear to me we would have seen the rapid disinflation in this country without the surge in immigration. It's certainly not clear to me that we wouldn't have seen our 2.5 - 3 percent growth rate - well above trend - without immigration. But that also came with costs. Even those who are pro-immigration weren't prepared to see cities overwhelmed with unhoused people and state coffers drawn down by efforts to deal with the surge.

ENDS

Interview with Lael Brainard (Director of the National Economic Council under President Biden)

Lael Brainard served as the Director of the National Economic Council from 2023 to 2025 under President Biden. Before that, she served on the Board of Governors of the Federal Reserve System from 2014 to 2023, including as Vice Chair starting in 2022. She also served as Undersecretary for International Affairs at the US Treasury between 2009-2013 in the Obama Administration.

Interview conducted 14th March 2025

Q How do you characterise “Bidenomics”? What do you think its objectives were and how do you think it performed?

There was a central focus across all of Biden's economic policies, which made working families of America the north star of all of his economic policy. When he put his weight behind certain policies, by and large, it was to lift up the fortunes of people at the middle of the income distribution. That was very important as an animating feature throughout.

There are two very distinct phases of Biden's economic policies: the first phase was the immediate stabilisation and recovery efforts. I would distinguish those very strongly from the longer-term investment strategy. I think they're quite different elements. They have in common that the middle class, working families and workers were the central focus of the policies, but they were very different in what they did.

I came in on the tail end of the recovery efforts and obviously we continued to make sure the economy stayed on track. There was a lot of crisis management that still needed to be done, whether that was working through the uniquely American debt limit or dealing with contract negotiations and the regional banking crisis. All of those things were related in some way to the recovery.

Then there was the longer-term investment agenda, which goes to the heart of what was really innovative [under the Biden administration]. The investment agenda had as its focus creating the incentives for the private sector to invest in long-term competitive and productive areas of the US economy that just hadn't been seeing the investment that was necessary - in advanced technology, semiconductor manufacturing and the clean energy transition - to benefit middle-class Americans and regions that have been left behind.

Q: And looking back, did it work?

There was, I think, tremendous value to the CHIPS and Science Act, the Bipartisan Infrastructure Law and the clean energy provisions in the Inflation Reduction Act. These aspects are really important and provide good models for other places to pick up.

There were also areas that could have been done differently that would have made that set of incentives effective sooner and gotten perhaps a bigger response quicker. But, by and large, the thrust of those policies was well conceived and really important for the long-term growth of the economy. Those are the things that have the most relevance for other countries.

The biggest relevance of the earlier stabilisation and recovery are some specific policies that worked like the child tax credit, but other countries have similar policies. The big question mark on the earlier part of the Biden economic policy is weighing the benefits of a much larger amount of stimulus bolsters the economy earlier on against the risk of potentially a little bit more of a price response, but also a much stronger recovery. So there are some really important questions there, but they're important to separate from the investment agenda.

Q: How much of the labour market dynamism that came about following the pandemic and the stimulus was ex ante part of the plan or was that a surprise?

I was at the Federal Reserve during that early part of the pandemic response, so I looked at this from a bit of a distance. I had a lot of discussions with German and French and other counterparts about the Kurzarbeit and other programs that they were using to keep people attached to their positions at existing businesses. Certainly, from a macro point of view, we thought a lot about supporting the labour market ahead of time. Now what is clear with the benefit of hindsight is there was a huge amount of support given to businesses to reopen and to be able to hire quickly. There was also support to individuals in terms of enabling them to stay out of the workforce longer, to collect unemployment longer. This included people who were not attached to firms - the pandemic unemployment assistance was entirely novel. What became clear as people were coming back to work, ultimately, is that they had chosen to reallocate to better, more remunerative and productive attachments.

It seems to be good for individuals and also for the economy because there was quite a bit of sectoral reallocation that you can see in the labour market data. You also see tremendous business dynamism. If you look at the small business application numbers, they are off the charts. People like Steven Davis and John Haltwanger who study those kinds of statistics noted almost a structural shift as the recovery was gaining steam. Those two things together may well be part of the reason we saw the uptick in productivity. Obviously, I don't think I've seen any empirical analysis that establishes definitively how much of the increase in productivity they were responsible for. But I think with the benefit of hindsight protecting people but not handcuffing them to their existing employers this time worked out much better for the overall economy. It also appears to have worked out much better for individuals because we saw a lot of stronger household balance sheets and better remuneration.

Q: Clearly, the administration didn't want to go light on the stimulus, as many people felt Obama did after the financial crisis. One of the debates is did the

stimulus go too far in retrospect. Is there anything that you want to reflect on that debate?

I think the politics were very special at that moment. There were three big stimulus packages: \$2.2 trillion in early 2020; then \$0.9 trillion dollar second stimulus package in December 2020, then the \$1.9 trillion American Rescue Plan in late March of 2021. If you look at the debates coming off the back of the December package, which was still under Republican President with a Republican Senate, President Trump loudly mused about not signing the bill because he said the \$600 stimulus checks were too small, and they should have been \$2,000.

The Presidential election was already decided in favour of President Biden, but the Senate hung in the balance. There were two races in Georgia and many people believe they were decisively won by Democrats because they picked up the \$1400 stimulus check idea that Trump had thrown out there. That was then something that the Democrats needed to deliver on. So I think that piece of it was just a necessity.

There were pieces of the American Rescue Plan that really paid out only over time that were not absolutely central to it that perhaps would have been better not to include. In terms of the output gap it was a very large package at a time when the economy was well on its way to recovering. Unemployment had come down very, very rapidly over the course of the latter part of 2020. Although it was probably larger than it needed to have been, there were some political reasons for some of the elements that were very compelling.

But when I look at the macroeconomic estimates of the effect of the American Recovery Plan, it may have accounted for at most one to two percentage points on the price level. If you look at a variety of peer economies and you look at an array of growth outcomes, employment outcomes, price level outcomes - because the price level turned out to matter a lot - there were many countries that were in the same ballpark in terms of the price level increase with a lot less fiscal stimulus. Those countries considerably underperformed the US on unemployment and growth. So I think at the end of the day, yes, it was too big. Yes, some elements weren't essential but was it decisive in terms of inflation? No. Probably one to two percentage points at most on the price level. But it also supported a significantly earlier and stronger recovery in GDP and the labour market.

Q: There's an interesting debate about the link between the dynamism of the labour market and the macro stimulus, could you have had that dynamism without the labour market being pretty hot, pretty tight?

The macro stimulus was an important piece of the puzzle for the very hot labour market. But it was also the case that the Federal Reserve was highly stimulative throughout this period and only started to taper in November of 2021 and didn't start to hike rates until March of 2022. Then, of course, we raised rates starting in May very rapidly and in very

large increments. So there was a lot of support for the economy from the monetary side, and ideally fiscal policy takes that into account.

To distinguish between some programs, the child tax credit was very important, not just because of the support that it provided, but because this was a well designed program that proved that if you structure the child tax credit in a way that really supports families on the lower end of the income spectrum, you get great results. Similarly, the premium tax credits were well conceived and materially expanded health insurance coverage. So policies like those were important regardless, but there was some aid that only paid out very slowly over time, particularly to states and localities. People would have a hard time arguing that aid really made any difference at all to the labour market in that period of time.

Q: When you go back to September 2021 was the worry at the time whether the recovery was still fragile?

By the time of September 2021 inflation had gotten back above 2%. Inflation sagged very low first in 2020, and it took a while for it to recover. But by the middle of 2021, it was climbing rapidly. Unemployment peaked at about 14.8% in April of 2020. By the third quarter of 2021 unemployment was down around 5% and the rate of decline was pretty steep, so I think at that juncture there was just a lot more comfort that the recovery was self-sustaining.

Q: Once you get into the autumn, probably monetary and fiscal policy was more stimulatory than it ought to have been?

The Federal Reserve took time to start hiking rates partly because of the complexity of our tools. There was a view that we had to finish tapering asset purchases before we could start hiking because otherwise monetary policy tools would be working at cross purposes. And the statement noted that we expected to see significant progress before we could start tapering. All of that put a lot of sand in the gears and slowed us down. And then, of course, what happened that was completely unanticipated was Russia invaded Ukraine on February 24th of 2022. Commodity prices spiked and inflation got an additional jolt at a time where we were in the midst of turning the ship and withdrawing stimulus. So that that was a spanner in the works that nobody anticipated. So after making an initial hike the following month, we adapted by hiking in $\frac{3}{4}$ of a percentage point increments at several meetings in a row

Q: When you think about the industrial policy piece - at that point, is there a tension between its macroeconomic impact and the other micro strategic objectives?

No. The macroeconomic effects of the investment programs came some time after the fiscal stimulus had waned. Those programs took some time to push out into the economy. For instance, the Treasury wasn't staffed up for the amount of tax guidance they needed to issue. It was complicated and very important, and they were doing

things that were unprecedented in terms of the structure of the tax credits. It was really good stuff, like making them transferable and establishing direct pay - these were all things that monetised those tax credits in ways that I think are incredibly important. But it just slowed down the effect on the economy.

Additionally, some programs worked through the states and no money went out into the economy under some of those programs for at least a year. As a result, some of the programs were slow to spend out. For CHIPs and Science funding - because those were very large grants - there was a lot of concern to make sure that they were being awarded on a competitive basis correctly. It took a very long time to get that money out the door. Commerce was still making some final awards in January 2025. So it took some time for that money to get out into the economy. We did see the private sector making investments in anticipation of the tax credits and other incentives being finalised and the factory construction numbers jumping up. By 2023-2024 we did see that, but not in a way that would have a big macro stimulative impact, I would argue.

Q: When you look back, did fiscal policy make macro stabilisation harder? Is fiscal policy being asked to do too much in this period?

We have a political system that is very unique. It is usually the case that in the first two years of a term, if a president has majorities in both Houses of Congress, there's an agenda that has been building up for some time, and the president and congressional leaders will try to get as much of that done as possible. That's just the way our system necessarily works. The ARP was carrying some of that policy agenda: it was an opportunity to get a lot of policies that were very important done. Again, could it have been relatively smaller and still done some of those really important policy innovations and gotten money to people that help sustain their ability to invest in their kids and get affordable health insurance?

Q: Others have talked about how the trouble with the Obama stimulus was there wasn't enough of a buffer. Is the lesson that the ARP was not flexible enough to respond and adapt to economic conditions?

In addition to fiscal policy, monetary policy provides an important ability to buffer the economy from shocks as well. So the two work together. Certainly there was a lot of support coming from the monetary policy side during this time period. And it's certainly true that the fiscal support was essential in providing targeted support –for instance for the unemployed, for household balance sheets, to stabilise child care, for small businesses and nonprofits, and to keep families in their homes.

Q: Was industrial policy under Biden a continuation of attempts by previous Democrat administrations to tackle market failures and make the market work better, or a break with the past and a fundamentally different way of using the power of government? Less simply market-adjusting and more market-shaping?

I would make the case that we actually did target areas that the market was unable to

invest in sufficiently. For instance, in the semiconductor manufacturing arena, it was simply not viable for private companies to put large capital to work in the United States when the incentives from governments in other countries, in particular in Asia, were just so massive. So that is essentially why we lost semiconductor manufacturing over time because those massive capital investments were not market-driven. These were huge capital-intensive investments and they were materially shifted by government subsidies, support and trade policy.

The market failure that the clean energy credits were addressing is also very clear, particularly the advanced technology tax credits. The private sector, particularly in the US, was not getting sufficient reward from the markets for making important capital investments, and they simply were not going to happen in the absence of the tax credits. But the reason this policy is really improving market outcomes to advance societal goals is because these are tax credits. Private companies have to figure out which of these tax credits made certain activities viable and profitable. And then the private sector would be entrepreneurial about where to invest. We weren't choosing.

The scale and design of this agenda was much bolder across the board. In that sense it is a real break from past efforts, coupled with a willingness to alter trade policy to support those investments.

Q: Was there a debate within the administration between the argument you put there and others in other departments who saw things differently?

At the White House, no I don't think so. Certainly with the Commerce Department, the Treasury Department, the Energy Department, and the White House, we thought of ourselves as creating incentives for the private sector and also providing more support to the private sector in areas like innovation. For a variety of reasons, government support for innovation had really diminished over time. We thought that was a really important public good and so we wove that into all of our programs as well.

Obviously, the Bipartisan Infrastructure Law is different. There it is about the provision of public goods. I don't think that the Biden Administration's approach was very different from the Obama Administration. During the Obama administration, we just couldn't get sufficient bipartisan support in Congress for those kinds of infrastructure investments despite strong efforts.

Q: In the end, the argument that you make to us today is that the biggest difference was scale as opposed to a view of how the market worked? Some people would say this was a more managed intervention rather than a market supporting intervention.

Scale and ambition, yes. If I think about what the Loan Program Office was doing at the Department of Energy or what Secretary Granholm was doing with her grants programs for battery recycling: it was very targeted at those areas of market failure that were also consistent with the use of tax credits. There was a lot of grant making authority that

previous Democratic administrations didn't have, but I think it was deployed pretty carefully as a companion tool to tax credits that were really trying to get private capital off the sidelines and invested in the economy. Of course, if you look at all the work that we did, I think our estimates are all based on the massive amounts of private sector capital that are needed to achieve America's ambitious advanced manufacturing and clean energy goals.

Q: How hard is it going to be to assess whether it worked?

There are lots of things that are changing dramatically under the new Trump administration. If they eliminate or dramatically change the structure of the tax credits or change the way that the CHIPS investments are made, then we won't get a clean ability to assess the efficacy of these programs because they have their greatest economic effect over a longer period of time. I hope we'll be able to assess them.

My sense is they were slow to spend out in some cases, perhaps most notably the charging stations. The stations were incredibly slow to spend out partly, perhaps mostly, because they work through the states and that process is very slow. But I am still hopeful that in many other areas that clean empirical assessment will be possible. Certainly my sense, having looked at the investment numbers in some of the clean energy areas and the semiconductor numbers (which was a step change), is that they should prove out over time.

Q: A lot of people who are strongly supportive of what you were doing strategically on industrial policy will say, but what they were doing trying to protect solar panels and prevent Chinese imports was ridiculous.

Obviously for each of these areas there was deep analysis that was undertaken, including every step of the solar panel supply chain. There was fundamental concern about any area where China would have a 90% share. We felt that Europe was not sufficiently attuned to those risks and should have worked with us more on that. We look at what happened in Europe on dependence on energy and we think it's just concerning that they would put themselves in that position again with regard to important components of clean energy. Even more concerning, having looked a lot at the EV industry, we are worried that Europe is at risk of not being able to sustain domestic auto production. So I understand why there might be an alternative view there. But the concern about being 90% dependent - which the world is - on China for solar wafers is a national security argument. It's not purely an economic argument.

Q: How much did the pandemic suddenly change people's perception around supply chain vulnerability?

The pandemic helped to crystallise it. In the wake of the Fukushima earthquake in 2011, the supply chains for autos around the world broke down for a few months and everybody in that world said "This is not healthy, and we need more diversified supply chains". And then they went back to just-in-time and made their supply chains even

more fragile. So the pandemic should have been a wakeup call. Of course there were other important geostrategic developments around the same time, including a reorientation of China's national security policies. So it was really not just on the economic side, but also a significant reorientation of China in terms of their national security priorities and partnerships that highlight risks around supply chains.

Q: There's also an element of America becoming pretty self-sufficient in energy and suddenly thinking we maybe didn't appreciate before what a good thing that is.

There are many people in the United States that think a lot about how important energy self-sufficiency is. Clearly the fracking transformation completely changed the US trajectory on fossil fuels. But yes, Russia's invasion of Ukraine and the associated leverage over certain countries in Europe was very troubling and animating.

Q: Did it change the way you thought about policy making compared to when you were in the Obama administration?

Not so much me, because I worked in the international arena during the Obama administration where I saw these risks play out. I was already a bit of a hawk in the Obama administration, but yes, I do think it was a very important moment.

Q: One argument might be that the US has seen such growth and productivity growth, in particular, not just because of anything that happened in the last four years, but because of fundamentals in the economy, such as the tech sector, as opposed to specific policy changes that any administration might make?

The US has a very dynamic AI sector that has developed in part on the strength of the massive tech platforms in the United States. There's no question that both the capital requirements as well as the data requirements, for better or worse, favour very large tech platforms that have that ability to internalise data and make investments in data centres. It's too early to see broad economic effects, but AI is projected to make a real difference in terms of productivity. It will have all kinds of other knock on effects, but the productivity enhancements seem to be likely to be quite profound.

The US starts with a strong foundation. China has that foundation, Europe not as much.

In terms of some of the other areas, let's go back to semiconductors. We have some of the biggest companies in the world that are consumers of advanced semiconductors. We have some of the best semiconductor design companies but we had completely ceded manufacturing of advanced semiconductors to the point where 0% of leading edge semiconductors were manufactured in the US. You just can't negate the important role of the government in creating a set of incentives that change the market's rates of return on these investments. That fundamentally depended on the CHIPS and Science Act. Similarly, with the tax incentives for clean energy: we just would not have seen the kinds of investments we're likely to see in areas like hydrogen without some of the really important incentives that were put in place.

We have many advantages, but we have really big deficits on infrastructure. If you don't have high-speed Internet-enabled businesses, they're not going to be able to take advantage of AI. So I think the government's role on infrastructure really matters.

The one thing we haven't talked about is regional policy - we call it place-based policy. If you look at the way those investments dispersed across the country, independent analysis looked at the 1,000 most distressed counties and found they received disproportionate amounts of investment, business creation and employment relative to the previous 20 years. Tax credits gave added bonuses for being in coal communities and added bonuses for being in low income communities. Some of the grants are specifically only for communities that were distressed. Then there's also just a natural affinity between some of the energy investments and the land that previously housed coal mines and steel plants. This was very intentional. It is clear in the legislation that they worked hard to include those incentives and the investments and jobs actually were disproportionately in those communities. Now, whether that progress is sustained depends on the Trump administration.

Q: In terms of learning for Europe, Bidenomics on the one hand reaped the benefits of a dynamic hot labour market, and on the other hand was focusing its rhetoric on re-regulating the labour markets, backing unions and supporting workers. Is the conclusion that, rhetoric aside, Bidenomics worked because of the dynamic labour market?

The Biden Administration not only supported a strong labour market recovery, but also strongly supported the ability to form and join a union and the rights of unions to bargain collectively and secure higher real wages at a time when the labour market is strong.

Q: But when it comes to these questions about labour market regulation, if Britain and Europe were to look at America and Bidenomics and say it worked and we should adjust our labour market regulation, that wouldn't be the lesson you'd be drawing?

I think the starting conditions are just so different. I think the Biden administration really did support the ability of unions to form and to collectively bargain and to protect workers in areas like overtime protections. In some ways we were trying to restore the rights that we think that workers should have under our laws against the significant deterioration that had happened under the previous administration.

My sense is that the UK and Europe have been very constrained by fiscal rules and constraints and a real reluctance to engage in more supportive incentives and grants for certain parts of the economy because they may be over-learning some lessons from the past.

In terms of the labour market dynamism, I think we would all conclude that there were some big, dynamic shifts in the economy that happened in the wake of COVID that had

to do with how the services sector organised itself along with other areas. Perhaps it's better to support workers, independent of their job attachments, during those moments of fundamental dislocation and give them the opportunity to go back in the market stronger household finances that enabled them to choose better jobs based on that strength.

But it didn't happen in a context where workers were in a weak position, it happened in a context where they were in a strong bargaining position. So I think that is actually an important lesson: we supported the economy being strong and gave lots of support to particular productive parts of the economy. And we also supported workers coming back into that labour market from a position of strength. Empirically, we saw both higher real wages and higher productivity.

Q: Looking back, what is the one big positive take away from this experience, which has really worked and what is the one thing that didn't?

I think the positive would be the real focus on working Americans and making them the centre of the recovery as well as the centre of our investment policies because that led to a very dynamic economy and good outcomes. It led to much better outcomes in terms of real income and household balance sheets for working Americans who then, in turn, power the economy. They are the consumers that made our recovery self-sustaining and strong. So I think that is the positive piece.

The negative piece is some elements of the investment agenda were too encumbered - they took too long to push investment in a positive way.

ENDS

Interview with Larry Summers (Harvard University, Secretary of the Treasury under President Clinton and Director of the National Economic Council under President Obama)

Lawrence H Summers, Charles W. Eliot University Professor at Harvard University. He previously served as the Secretary of the Treasury for President Clinton, Director of the National Economic Council for President Obama and the Chief Economist of the World Bank.

Interview conducted 29th January 2025

Q: How would you characterise Bidenomics? What do you think its objectives were, and how do you think it performed?

I think the Bidenomic strategy was: much greater faith in strong aggregate demand to produce the benefits of a high-pressure economy; a belief in fairly activist industrial policy to resurrect American manufacturing and to address key challenges around resilience and security; and a substantial effort to signal a greater commitment to policies directed at 'predistribution', as distinct from redistribution, by supporting - in various ways - labour in the economy, including through aggressive antitrust policies. Net, it was a move to a substantially more involved government in economic policy - with the adoption of almost all advanced justifications for greater government involvement.

Q: How would you describe the reality of what the Administration actually achieved compared to what was originally intended?

I think they did a fair amount of what they planned to do. They had a set of ideas around the care economy, which they were less able to implement than they had hoped. They were able to implement their infrastructure and green economy initiatives, but on a smaller scale than they had hoped. But I would say they were able to get a fair amount of the program adopted.

Q: Do the various elements you describe add up to a coherent set of ideas and a new way of policymaking, as advocates claim?

There was some scope to pick and choose among the ideas. It's not coherent in the sense that a sensible person would be for all of it or for none of it, but it has a set of common themes that run through it. I think it has some important and valid aspects, and some others that I think are less compelling.

Ex ante, I thought the macro stimulus was being substantially overdone - at the time. And I think that was because the program was assembled from the bottom up, by bringing together what was seen as politically compelling rather than from any

macroeconomic analysis. No macroeconomic analysis of the gap in the economy versus the magnitude of the fiscal stimulus would have supported a program of the size that was adopted. All one has to do is see that nominal GDP - essentially aggregate demand, or in monetarist language 'money times velocity' - increased by 35% during the Biden term. The GDP gap might have been 6–8% when Biden came in. If you set policy in a way that generates 35% nominal GDP growth, it is hard to believe you won't have inflation substantially above 2% unless you're starting with an immense real GDP gap. That was not hard to see when the program was launched.

I think that was a substantial error—economically and politically. This is the third time in 58 years that progressives have come a cropper around inflation. If inflation had appeared more under control, Richard Nixon would not have been elected in 1968, because that was a very close election. If inflation had not symbolised a country out of control, Ronald Reagan would not have been elected in 1980. And if inflation had not been the premier economic issue, Donald Trump would not have been elected in 2024. That was an enormous mistake.

There was a political error of judgment, which I wouldn't necessarily have known was an error when it was made. There was a deep conviction that it was important to provide child tax credits because if you put child tax credits in, there would then be a clamour for them to continue, and that would represent a significant step forward for children in America. In the event, there was no such demand. Republicans did not allow them to continue, and no one in the congressional election mentioned the failure of Republicans to allow them to continue because they were unmourned. While I personally supported the child tax credits, fiscal irresponsibility just to get the camel's nose under the tent was not a plausible political strategy.

I'm not sure how history will judge the infrastructure and green programs. The recognition of the need to jump-start renewable energy technologies and resolve chicken-and-egg problems was an important and valuable initiative. We've seen a profound change in progressive thinking about climate change, away from pricing carbon toward finding technologies that are renewable and have energy costs no higher than fossil fuel costs. I think this program was catalytic in that regard and that was an important step.

I think it was important to address infrastructure. Unfortunately, the Achilles' heel of progressives is a focus on conceptualisation rather than implementation. If one looks at the path of real infrastructure spending, as opposed to nominal spending, real spending increased much less than expected due to various bottlenecks. The stories of billions of dollars being allocated with very few charging stations built are troubling. I don't think we really quite know what the incremental efficacy of the green investment programme has been. For example, I don't fully understand the administration's fixation with producing solar units in the United States. It seems to me that they're not a security-sensitive technology, and there are a lot more jobs involved in installing them than in producing them. So I didn't see the rationale for the degree of protectionism that was applied.

Semiconductors were handled with more objectives trying to be pursued, such as unionised labour and childcare, than I would have recommended, but those initiatives were valuable and contributed towards security, given the extent of concentration in Taiwan and China (a very dangerous part of the world) for semiconductor production.

I think the general attitude of the administration of hostility towards business was politically costly and probably carried with it a set of economic costs as well. The Federal Trade Commission was extremely active, and by regularly losing court cases with a somewhat incoherent populist doctrine, it set back the cause of active competition policy while, at the same time, complicating American leadership by attacking potential national champions.

Q: Were you surprised by the dynamism of the labour market response to the ARPA stimulus?

I don't know for sure. I remarked early on about what I called the Truro, Massachusetts, model. Every winter on Cape Cod, GDP in Truro goes down by 60–70%, and every May, when the tourists return, the restaurants and shops re-open, and GDP effectively doubles or triples within a month. I thought there were important respects in which the broader economy was in a similar state of suspended animation during the pandemic as Truro during the winter; and that was a more self-correcting dynamic, less in need of dramatic action by government, than was sometimes suggested.

I haven't studied the European experiences closely enough. Europe faced a very different type of energy price spike than the U.S., for instance. But I remain sceptical that the level of inflation we experienced was necessary for a reasonable recovery. And I think that inflation was also associated with significant reductions in real wages.

Q: In 2021, many were worried about the opposite: a weak demand recovery leading to an even worse economic downturn. Is it right to say that policymakers should have foreseen inflation?

I thought those analyses were missing the point, in the same way that the analyses done in 1943 forecasting a depression after World War II were missing the point. They were failing to understand that when people are unable to spend, they hoard savings, and then the spending took place later. They were failing to appreciate how much was being done to support disposable income. I thought there was a need to maintain a steady path of household disposable income. There was not a need to achieve record levels of growth in disposable income, which is what was done as a result of the stimulus program.

Q: Was the “hot economy” necessary for the strong labour market recovery the US saw from 2021?

Another analytic error that people made was this: suppose eight Indian restaurants existed in Brookline, Massachusetts, and three closed because of the strain of COVID. When COVID ended, there was still probably the same number of people who wanted to eat Indian food. They went to the five restaurants rather than the eight restaurants, and the five each had to hire more waiters and were maybe more efficient (in the sense that there were more economies of scale), albeit with less variety.

I think the fact that America permits more creative destruction, and as a consequence enjoys more creation - and that it benefits from the flexibility of American institutions - is probably more “the lesson” from the recovery. I think there is evidence that those parts of America which moved beyond excessive unemployment insurance faster enjoyed more rapid recoveries. I think it’s more a tribute to general differences in resilience and flexibility in America’s institutions, than a commentary on the specific policies the Biden administration adopted. I wouldn’t say that the Biden administration were pushing toward less flexibility rather than more; I just don’t think they were focused on flexibility as much as I would have liked them to be.

Q: Against those pre-existing strengths (labour market flexibility, avoiding an energy shock, the strengths in the tech industry) how much did Biden micro-economic policies matter for US growth?

The fact that the world’s great tech companies are disproportionately American has to be seen as having a great deal to do with the strength of the American economy in this period. We could have failed to preserve financial stability or could have allowed a cascading decrease in aggregate demand. But I think it’s the system, more than specific policies pursued in those years, that deserves dominant credit.

Q: Earlier you differentiated between solar panels and semiconductors. Are you saying that national security concerns justified a more protectionist approach for chips but not for solar panels?

In general, if you argue for industrial policy and you mention jobs, you’re probably making a mistake. There are rationales for industrial policies, but they don’t include the creation of jobs. That suggests an excess in industrial policies.

Q: Some argue that the location of jobs matters as much as the industry itself.

There is a case, perhaps even a reasonably strong case, for a range of place-based policies. I’m not convinced that is well enough understood, or well enough done. The tendency - from the analysis I’ve seen - is that the tendency of the Biden administration to target programmes on high-unemployment areas was not particularly pronounced.

Q: If you were advising governments in the UK and Europe, what lessons—positive or negative—would you highlight from the Bidenomics experience?

Be very careful of inflation. You have to be mindful of some degree of fiscal sustainability.

You have to be aware that people don't check into hotels that they won't be allowed out of. Employers who can't fire people won't hire them. Labour market flexibility is at a premium.

You have to be mindful of the difficulty of implementation and execution in the public sector, and projects need to not have a hundred different objectives to satisfy a hundred different constituencies. And veto power should not be distributed promiscuously..

And you need to be supportive of entrepreneurship, because ultimately that's where lots of energy comes from.

Those are the lessons I would emphasise.

Q: You mentioned the intellectual shift in climate policy from pricing to technology - what is the translatable lessons there for Europe?

I'd be looking to get the best technologies from anywhere, implementing them, and supporting entrepreneurship and innovation around key technologies.

If I were Britain, I'd recognise the immense asset I have in being home to several of the world's great universities. I would keep them great. I'd use them as magnets for talent, some of which would settle in Britain. I would try to build as much activity out of them as possible, in the way Route 128 was built out of MIT or Silicon Valley out of Stanford. And I would think of that as a major source of comparative advantage.

Also, I wouldn't mind buying solar panels from China.

Q: If you had to summarise Bidenomics in one surprising positive and one disappointing negative, what would they be?

The biggest negative was the miscalculation on inflation. The thing that was positive was the CHIPS Act - showing you can meaningfully get stuff going with strategy.

ENDS

Interview with Michael Strain (Director of Economic Policy Studies, American Enterprise Institute)

Michael R. Strain is the director of Economic Policy Studies and the Arthur F. Burns Scholar in Political Economy at the American Enterprise Institute. His research and writing span a wide range of areas, including labour markets, public finance, social policy, and macroeconomics.

Interview conducted 5th December 5th 2024

Q. How would you characterise Bidenomics? What do you think its real objectives were, and how do you think it has performed?

I don't think it was a coherent approach to economic policy - which is not necessarily a judgment on any of the policies. Reaganomics was a concerted effort to juice the supply side of the U.S. economy through policies to stimulate labour supply, investment, and remove regulatory barriers. Reaganomics means something. I don't really think there was a Bushonomics or an Obamanomics and I don't see that there was a Bidenomics either.

At one point, Bidenomics was going to be a kind of supply-side progressivism, but that went away pretty quickly. If you really pressed me, I would say the distinguishing feature of the Biden Administration's approach to economic policy was an embrace of industrial policy through the form of subsidies. That would have been a lot more novel if President Trump weren't the previous President, because he also embraced industrial policy with similar aims, although President Trump favoured tariffs whereas President Biden favoured subsidies. There's a lot of continuity between Trump and Biden.

Another way to approach the question "what is Bidenomics?", rather than focussing on the economic philosophy, is to ask: How will President Biden's stewardship of the economy be remembered? What are the biggest effects of the Administration's economic policy? I suspect the American Rescue Plan is going to be what is remembered. I think it has had a larger impact on the economy than either the Inflation Reduction Act or the CHIPS Act. It has also had a larger impact on political outcomes and society more broadly. If asked what the economic legacy of the Biden Administration is, I would say: engaging in what I would characterise as the most reckless fiscal policy in decades. This resulted in substantially overstimulating the economy to the point that it contributed 2 or 3 percentage points to inflation, pushing up the price level, and leading to or exacerbating a period of political instability. This probably contributed to President Biden not being able to accept the nomination of his party for a second term and contributed to the Democrats losing the White House.

Aside from policies, what has been the most notable trajectory of the U.S. economy over the past four years - how will history look back on the past four years?

Inflation is the big story. The pandemic was weird in several ways. The economy entered into a deep recession, but it lasted only two months. By June 2020, the economy was growing again. By January 2021, when President Biden took office, the unemployment rate was falling, and the economy was adding jobs and growing. It was normalising, growing below potential but not so dramatically. The output gap in the first quarter of 2021 was \$200-400 billion. That's not nothing but it's not a catastrophe. Was there an output gap? Yes, but the trajectory of the economy was solid, and it was going in the right place.

If the pandemic had played out a little differently then that would have been the big headline. But as it happened, the economy had stabilised by January of 2021. So, after four decades of inflation not being a big problem, and after a decade and a half where the big problem was too little inflation, we had a period of some months where the consumer price index was growing at a 9% annual rate.

That was a hugely traumatic event, leading to most workers seeing the purchasing power of their wages decline, and median inflation-adjusted household income being lower in 2021 than in 2020, and lower in 2022 than in 2021. This led to low levels of consumer sentiment. We engaged in a year-long exercise to figure out why people felt this down about an economy with an unemployment rate below 4%; and for me, inflation and its consequences will be the big takeaway.

To be clear, I think the American Rescue Plan contributed to that inflation, but we would have had significant inflation even if the ARP had never been passed.

Accepting that the ARP almost certainly increased inflation, could any policy bundle have helped reduce inflation or was that something structural and global that would have swept across the US economy independent of any policy decisions?

There would have been inflation independent of U.S. policy decisions. Some of that inflation came from the kind of global forces you're describing, particularly the supply side of the economy. There were supply chain issues that needed to be resolved. There were big increases in commodity prices as a consequence of the war in Ukraine and other geopolitical conflicts and the US was going to be hit by those regardless of the policies of the Administration.

Monetary policy gets too easy of a pass in these conversations and was egregiously miscalibrated in 2021, contributing to inflation - independent of anything Congress or the President did.

Third, the pandemic's end also pushed forward consumer demand in a hard to predict, volatile, certainly aggressive manner. So regardless of the fiscal policy approach of the Biden administration, there was a lot there. But the ARP was a big factor in the inflation that the U.S. experienced.

Were there things that could have been done? Clearly the answer is yes. The U.S. kept tariffs in place that, if dismantled, could have reduced measured inflation. Expansionary fiscal policies, not just from the ARP but also from the Inflation Reduction Act and CHIPS Act, contributed to inflation. While it may not have been advisable to halt their plans for modest CPI reductions, there were certainly actions that could have reduced inflation.

The fiscal position in the US in the Trump years was relatively loose, in terms of tax cuts and the initial COVID spending through the CARES Act. What lesson did the Biden administration draw from the Trump years?

I think they drew the wrong lesson from the Obama years, not the Trump years. President Biden and his advisors looked back on President Obama's first term and concluded that the recovery from the 2008 financial crisis would have been faster if the stimulus had been larger. They reached the correct conclusion in my judgement that the Recovery Act was too small relative to the needs of the economy which resulted in some pretty troubling economic outcomes such as big increase in the rate of long term unemployment, while the unemployment rate came down much too slowly during the first term and inflation-adjusted wages were stagnant or declining for most of the workforce until President Obama's second term. They wanted to avoid that mistake, leading to a "better to err on the side of too much than too little" approach.

At the time, and today, I agree that it's better to err on the side of too much rather than too little. But too much is not an exact term and, in my judgement, an American Rescue Plan that was 500 or 600 billion dollars would have been erring on the side of too much rather than too little. A Rescue Plan that was a trillion dollars would have quite clearly been too much and what we got was a \$1.9 trillion stimulus. That was not erring on the side of too much; it was reckless.

So how did that happen? It happened in part because President Biden and the Democrats had unified control of the elected branches of government, and there wasn't a lot of discipline put on them. It happened in part because they felt political pressure to do things like stimulus checks to households that hadn't lost any income and had never lost their job, and that were earning six-figure salaries—things that I don't think the Administration's economic advisors thought were wise, but that political advisors and progressives in the House of Representatives thought were politically necessary.

I think that over-learning the economic lesson from 2008, the Obama first term, combined with those political factors, was then combined with a clear analytical error: assuming that inflation is a thing that happened decades ago but wasn't going to happen anymore - "We did all this stimulus under President Obama, and we didn't get

inflation; the Fed did all this quantitative easing, and we didn't get inflation; President Trump did his tax cuts, and we didn't get inflation; we had the \$2 trillion CARES Act, and we didn't get inflation. Inflation is a variable that is somewhat influenced by real economic outcomes, but is mostly influenced by psychology. And thanks to Paul Volcker, the psychology has been tamed. Sure, I'm worried about inflation, but I'm also worried about an asteroid crashing into the Atlantic Ocean—I don't think I'm going to plan my day around that, and I'm not going to design the stimulus package around it".

That just turned out to be wrong. In fairness to the administration, there were not a lot of people arguing that it was wrong. Greg Ip at the Wall Street Journal wrote a column and managed to find three people, me, Larry Summers and Olivier Blanchard. I have some sympathy for that. But I don't have an excessive amount of sympathy for it, because on the one hand, you could look at this as a \$300 billion output gap, unemployment rate falling, not rising, economy growing, not shrinking, \$2 trillion of stimulus, checks to everybody, and say: at some point the economy can't expand its productive capacity to meet that demand, and so you have to have inflation. That was the basic argument from me. In response to that, you get this stuff about the magic power of inflation expectations, or arguments that are predicated on the Phillips-curve parameters from 2014 somehow still applying in 2021, when the economic environment had completely changed and we know those parameters aren't stable across economic regimes. I think there was some optimistic forecasting.

Putting aside the quantum of stimulus, what do you make of the direct-to-consumer approach of stimulus checks? Is this a new tool in the arsenal for whenever the next crisis happens?

First, I wouldn't overstate how new it is. President Bush did a version of stimulus checks; and there are often calls for things like payroll tax holidays during recessions, which is equivalent to a stimulus check for workers - not for everybody, so that is a difference. Similarly, we always want to make unemployment benefits more generous, make food stamps more generous, and all this sort of stuff.

The innovation that the Biden Administration pursued is less about the delivery mechanism of the money—whether it's a check versus a payroll-tax holiday versus a bigger food-stamp program or whatever. At the end of the day, you're putting money in people's pockets. The innovation is the absence of targeting. If you expand unemployment benefits, you're putting more money in people's pockets, but the pockets only belong to unemployed workers. If you expand the food-stamp program, you're putting more money in people's pockets, but only for low-income households who are eligible for food stamps. If you do a payroll-tax holiday, you're putting money in people's pockets, but only in the pockets of people who are employed. The innovation is the universality of the federal support. That, I think, we will look back on as an error.

I say that with some hesitation, because there are obvious benefits if the goal is to stimulate consumer demand with the goal of stimulating labour demand and advancing reductions in the unemployment rate: we saw that can work. But both the experience

with the stimulus checks and the experience with the advance child tax credit payments have solidified the view—correctly, in my judgment—that giving subsidies to households earning six-figure incomes who haven’t experienced an unemployment spell, and whose house is worth a lot more than it used to be, and whose stock portfolio is worth a lot more than it used to be, is not a good idea.

I would expect that the next time we have a recession, there will be some combination of these lessons—maybe the view that we should have stimulus checks, but that the checks should be targeted based on household income and focused, maybe not on the bottom 15% the way food stamps are, but maybe on the bottom 50%, or maybe even the bottom 60%. But let’s not send Warren Buffett a stimulus check. That could be where this shakes out - a part repudiation of the Trump-Biden approach. It’s arguably more Trump than Biden. Also observing that if you want to get people out there spending money, giving them money is a pretty good way to do it.

My worry is that if we have a recession in the next two years and there’s unified control of government, I’m not that worried about there being a response. But if Vice President Harris had won, but Republicans had won the Senate, my worry was that there’d be no stimulus even if it was necessary, because the ARP has so thoroughly discredited the stimulus. That that will end up being its legacy. With Republicans holding all three elected parts of the federal government, I think that’s less of a concern.

During the COVID pandemic, people talked about the “great reshuffle,” where people seemed to move jobs a lot, and we’ve seen a sustained increase in business creation. How much of that explains U.S. growth in the last few years?

We don’t really know. There was a period where we saw this spike in entrepreneurship, and we thought maybe it was a temporary thing: you couldn’t go to work, or your job was only giving you half your normal hours, so you started a business to generate extra income. But it has persisted, and the current data show that it still persists. This cannot be explained as just a mechanical reaction to what was happening in the pandemic. It speaks to something that, in my view, is remarkable about the American economy: that the response of a large part of the population to this pandemic was to say, “Okay, how can I add value here? How can I make money here?”—and then start a business. That’s really quite impressive.

We don’t have a good empirical basis for answering your question, but my sense is that that’s been quite important in the U.S. recovery from the pandemic. And it’s likely an important factor in explaining the divergence between the U.S. and some of the other G7 countries.

Then there is the separate issue of upward mobility in the labour market among employees, not among entrepreneurs. We have lots of evidence that this has happened. In my view, it has increased the productivity of the workforce, increased the productivity of the economy. The flexibility in the labour market exists in the United States in a way it doesn’t exist in other advanced economies, and has a good amount of

explanatory power in judging the differences between the U.S. and other advanced economies.

How much can this increase in entrepreneurialism and upward mobility be ascribed to policies put forward by the Biden Administration rather than pre-existing conditions?

A good amount. One of the frustrating things about the economic-policy debate has been that critics of the American Rescue Plan don't want to acknowledge its role in pushing the unemployment rate below 4% and in allowing for a full recovery of the rate of employment. Supporters of the American Rescue Plan want to argue that all the inflation came from the supply side, but that the ARP had all these miraculous labour-market effects. Those are internally inconsistent explanations. It's Economics 101 that labour demand is derived demand—businesses assess consumer demand for the goods and services they provide, then figure out how many workers they need to provide those goods and services.

There's an obvious link between consumer demand and labour demand, and a link between labour demand and the unemployment rate and the rate of employment. So the American Rescue Plan played a large role in the upward mobility we saw in the labour market that was caused by really low rates of unemployment. The flip side is that businesses were desperate for workers - we reached a point where there were two job openings for every one unemployed worker. The businesses that were so desperate for workers hired everyone they could, giving workers a ton of bargaining power, which led to upward mobility and big nominal wage increases and allowed traditionally vulnerable workers - those with work-limiting disabilities, those with criminal backgrounds - to get jobs, which pushed everyone else up the ladder.

But when there are two vacancies for every one unemployed worker, there just aren't enough workers, when businesses cannot expand enough to meet consumer demand, they start raising prices in order to allocate their output. What happened is actually a very textbook case of what you would expect. Yes, the American Rescue Plan was absolutely a major contributing factor to a lot of upward mobility and an extremely tight labour market, and all the good things that come with that.

What is your assessment of Bidenomics as industrial policy through subsidies, how much did it increase US productive capacity?

To a very limited extent. You want to ask, "Are these programs working?" and then the natural next question is, "What are they supposed to do?" It's pretty hard to know. These programs were sold as programs that would revive manufacturing employment, and there, I think, there is no hope of success. Manufacturing employment as a share of total employment has been trending down for seven decades. Even if we were to double the number of manufacturing workers, we still wouldn't be back to a place where the political rhetoric about the importance of manufacturing matched tangible economic statistics.

The CHIPS Act, in addition to reviving manufacturing employment, is supposed to contribute to the nation's resilience, to make the nation more secure by establishing the United States as a place where semiconductors are manufactured. The Semiconductor Manufacturing Association - which is certainly not a disinterested group - lobbied hard for the CHIPS Act. They think the CHIPS Act is going to take the U.S. from producing 12% of global chips to 14% of global chips by 2032. This does not strike me as a large increase.

They also estimate we'll go from producing none (or essentially none) of the most advanced chips to producing 28%. That feels bigger than the move from 12% to 14%. But if 72% of the advanced chips in the world are produced outside the United States, are we in a material sense more resilient than if 100% of the chips are produced outside the U.S.? Are we more secure? Are we less exposed to increasing tensions between China and Taiwan? I don't know, but I'm deeply sceptical that the answer could be yes. If 5% of global chip production got knocked offline, that would be a really bad thing. If 10% got knocked offline, that would be a terrible thing. If 15% of global chip production got knocked offline, that would be a catastrophe. Even under these incredibly optimistic forecasts from the trade organisation representing the industry, we still have over 70% of chips not being made in the U.S. That doesn't make me feel very good about a big disruption in that sector.

The Inflation Reduction Act, in addition to reviving manufacturing employment, has as its goal to advance the clean-tech sector. If you spend a trillion dollars on that, maybe you get something. But it's not obvious you get something; and it's certainly not obvious it passes any sort of cost-benefit test. When President Obama tried to protect the tire industry, he succeeded in saving some jobs and keeping some tire manufacturing in the U.S.; but he succeeded at the cost of several hundred thousand dollars of taxpayer money per job. Success has to include a cost-benefit assessment. You can't just say, "Did the program do anything?" The Inflation Reduction Act is so expensive that I'd be deeply surprised if it passed any cost-benefit test.

It's also pretty clear that there are better policies, if you want to spark the clean-tech sector in the U.S., than giving \$7,500 to everybody who buys a Tesla. You could implement a carbon tax. You could increase support for basic scientific research. From either of those policies, the bang for the federal buck is much higher.

We're never going to resolve this because President Trump won the 2024 election, and ten years from now, when retrospectives on the IRA are written that show it didn't really achieve anything relative to its cost, the defenders are going to say, "Well, that's because of everything that President Trump and the Secretary of Energy and the Secretary of Commerce and the Republican Congress did to it."

On the surface level, there will be truth to that claim. But, in my view, passing a sweeping trillion-dollar industrial policy on a party-line vote is itself an indication that your policy is not going to work. One of the generalisable lessons from the IRA episode

is going to be that if you want industrial policy to succeed, you have to have buy-in from both parties. Because any policy that has, at most, a four-year shelf life but that has the goal of transforming an entire sector of the U.S. economy, is poorly designed to the point where failure is baked in on the day the President signs it. The likely historical fact that the Trump Administration and the Republican Congress in 2025 and 2026 did things to hobble the IRA is an indictment of the policy as pursued by the Biden Administration, not an indictment of the actions of the Trump Administration. The Biden Administration did not take seriously enough the obvious points of failure it built into its own law by creating a law that had zero support among the other party that was probably going to win an election at some point again.

What lessons should the UK and other countries do you draw from the U.S. experience with Bidenomics?

It's challenging, because when the UK Chancellor of the Exchequer talked about how much she liked Bidenomics, that was in the supply-side progressivism era. Then that was quickly ditched. But she kept talking about how much she liked Bidenomics. When asked what it was that she was supporting, there wasn't a whole lot there. I thought that was something you do when you're 20 points up in the election and you don't want to screw up your lead. But then the new Labour government got into the office, and there wasn't a lot there.

I don't really see any obvious lessons from either the Biden Administration's successes or failures for the UK. The UK could never get away with persistent 7 per cent budget deficits. The UK could never get away with introducing the kind of geopolitical friction that the Inflation Reduction Act introduced. The UK could never get away with running the kind of protectionist policies that the Biden Administration either enacted or carried over from the Trump Administration. The UK could never mount an effort to deficit-finance a complete overhaul of the energy sector or the manufacturing sector. The UK, rather than operating from a position of above-potential economic growth, is instead operating from a situation of 15 years of no growth. I don't see any clear lesson from anything that the Biden Administration has actually done.

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