GREENFLATION: INFLATION'S NEW VARIANT

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EPISODE 10 - Featuring Klaus Baader, Societe Generale Corporate and Investment Banking Global Chief Economist

With inflation proving more persistent than expected, a new variant of inflation has appeared: Greenflation. In this new episode of 2050 Investors, Kokou Agbo-Bloua investigates how the fight against climate change appears to be ironically heating up commodity prices and the economy. He brings in Klaus Baader, Societe Generale Corporate and Investment Banking Global Chief Economist, to discuss what governments and central banks can do to mitigate the effects of greenflation and what happens when they disagree.

2050 INVESTORS – EPISODE 10 SCRIPT

(Opening credits for all episode of the podcast)

Welcome to 2050 Investors, the podcast that deciphers economic and market mega-trends to meet tomorrow's challenges.

I'm Kokou Agbo-Bloua, I head up Economics, Cross-Asset and Quant Research at Societe Generale.

In each episode of 2050 Investors, I'll investigate a key mega-trend that relates to the Economy, the Planet, Markets and You.

(Beginning of episode 10)

On a Thursday night in late January, comfortably sat in my sofa after a long day at work, I was sipping some peppermint tea in front of the evening news on the BBC.

UK Prime Minister Boris Johnson announced in front of Parliament the end of Covid19 restrictions in the UK. [Boris Johnson] **"*From now on, the government is no longer asking people to work from home. […] The government will no longer mandate the wearing of face masks anywhere*".**

Finally! The end of the Omicron wave is only a few weeks away… well supposedly. This time the light at the end of the tunnel is not another train. What a journey! I still remember the first lockdown 2 years ago back in March 2020 …. Which was announced on the day of my birthday.

So, is the Roaring 2020s buzz back? Are we back to a raging bull market fuelled by revenge spending and excess liquidity ? Well … that is sooo 2021.

You see, 2022 is starting on a more bearish note.

This reminds me of a funny message I received on WhatsApp last month. It was the horrified face of a man in a hospital bed, next to whom was written. "When you realise 2022 is also written "2020 […] too", as in "t, o, o" and not "t,w,o". 2022: a repeat of 2020?

But back to our bearish environment. Central banks across the world are turning more hawkish and have announced their intentions to tighten monetary policy faster.

The US is expected to raise interest rates four times this year starting in March as it ends its QE programme.

The UK already did so back in December alongside a few emerging markets. The ECB will taper in October.

As I walk on the trading floor these days, I can sense some nervousness on the faces of sales and traders. Bonds yields in the US have increased sharply so far this year, causing a sell-off in growth stocks, with credit spreads also wider.

The Nasdaq is down over 12% year-to-date. Bitcoin is down 50% from its peak. Clearly the geopolitical tensions between Russia and Ukraine have made things worse.

However, the big elephant in the room is … **inflation**. And I must admit, it has proven to be hum… more persistent than expected. It is spreading fast and seems to be everywhere. Wages, food, electricity bills, gas prices, rent, commodities, etc….

Like a virus, inflation has a long list of variants. Over the past decades, central banks have waged relentless wars to protect economies from its more aggressive forms.

Interest rates and unconventional monetary policies are akin to vaccines designed to shield economies from its ravaging effects.

The five most popular variants are the following:

- First on the list is **Deflation**.

Deflation is negative inflation. Japan got infected with this variant after its equity and property market crashed in the 1990s. It caused a long period of declining prices and stagnant growth. Japan never fully recovered despite 10 years stuck in hibernation aka the lost decade.

- The second one is **Dis-inflation**.

Dis-inflation is a period of slowing inflation, a more friendly form. It was a key benefit of globalisation with lower labour costs and technological innovation.

- The third one is **Stagflation.**

Stagflation is an environment of low growth and high prices.

- The fourth one is **Reflation**.

Reflation is a simultaneous increase in growth and inflation, a classic symptom of economic rebound. As in 2009 or 2021.

- And finally, we have the most lethal of all, **Hyper-inflation.**

Hyper-inflation is a period of generalised and significant price increases. This is what keeps Central Banks awake at night the most famous victims were the US in the 1970s after the oil price shocks with inflation reaching 14.5% in 1980. And Germany during the Weimar republic in 1923 with annual inflation reaching 29,500% in October 1923. Or 20.9% daily inflation~~. This is what keeps~~

Today, there is a new variant in town. And it's called … Greenflation.

Greenflation is a hybrid between cost push inflation and the green transition. The fight against climate change to limit the effects of global warming on the planet appears to be ironically **heating up** the economy.

This is particularly the case for prices of important commodities needed for the decarbonisation of our energy supply such as copper, aluminium, lithium, cobalt but also fossil fuels such as oil and gas.

Good intentions can have unintended consequences.

This leads me to ponder two very important questions. Is fighting climate change likely to make transitory inflation more persistent across the economy in the medium term?

And if so, could this lead to a potential conflict between central banks who will want to fight the effects of greenflation and governments who will want to spend to protect consumers?

Let's start our investigation.

Our most loyal listeners will remember the Frog and Climate Change episode where we discussed the IPCC report, Greenium and renewable energies. And particularly the vast amount of commodities required to build solar panels, wind farms and batteries. Here is a quick reminder:

- Building a single 100-MW wind farm requires 30,000 tons of iron ore, 50,000 tons of concrete, and 900 tons of nonrecyclable plastic.
- The 1,000-pound lithium-ion battery one would find in most electric vehicles requires roughly 25 pounds of lithium, 30 pounds of cobalt, 60 pounds of nickel, 90 pounds of copper, 110 pounds of graphite, and 400 pounds of steel, aluminium, and various plastic components.

According to the IEA.org website, the number of electric cars, buses, vans and heavy trucks on the road is expected to hit 145 million by 2030 vs 11 million today. To put this into perspective, according to greenreports.com, there are about 1.2 bn combustion engine vehicles on the road today. We will need a lot more batteries.

The harsh reality is that these minerals and commodities, i.e. copper, aluminium, lithium, cobalt and nickel — are also in short supply despite mindboggling increases in prices.

Even the International Energy Agency, or IEA for short, raised the alarm in its second-annual "World Energy Outlook" by saying, and I quote, "*Shortages of these materials would result in "sustained" price increases of 5 to 15 percent for goods like solar modules, turbines, electric car batteries and power lines. If prices keep rising, the entire clean energy sector will need at least $430 billion in additional "cumulative investment" to keep prices low for consumers".*

Similarly, Chinese firm BYD Co. Ltd., a major battery supplier to Electrical Vehicle manufacturers, recently told its clients it plans to raise battery prices by 20 percent next year.

But let's pause for a second. This is counter intuitive. One would have expected, at least, according to the mighty laws of supply and demand that higher prices caused by a sudden increase in demand would trigger a supply response that would bring prices back down.

Aren't companies genetically engineered to be profit-maximizing organisms looking after the interest of their shareholders as discussed at length in the Green vs Greed episode.

I came across an interesting article on eenews.net that's titled *'Greenflation': Could climate action overheat the economy? 'Going green could save the world but we are all going to have to pay up for it*". The article gives some interesting answer to this puzzle.

Several countries around the world are all committing themselves to decarbonise with bold NDCs, which is short for nationally determined contributions, to reduce their emissions, carbon footprints and impact on the environment over the next 10 years.

As a result, commodity manufacturers are NOT able to increase supply but instead are choosing not to invest in capital expenditures. They are choosing to return their excess profits to their ESG conscious shareholders via dividend and share-buybacks.

There are plenty of company specific examples in similar articles:

- Mining companies such as Rio Tinto PLC and Anglo American PLC, have offered record dividend payments instead of massive investments into projects that could take years to become profitable.
- Some steelmakers in the US decided not to restart idled steel mills with blast furnaces that use coking coal and iron ore to make fresh steel for the market. They decided instead to invest in new mills that use electric arc furnaces to recycle scrap steel. While, those electric furnaces produce fewer carbon emissions, they are not able to offset the steel supply shortage.

This is thus a classic case of cost push inflation. As input costs such as steel become more expensive, manufacturers who have strong pricing power are pushing these costs to consumers in order to protect their own margin. Et Voila! The average price of a new vehicle hit an all-time high in October 2022 surpassing $46,000 per vehicle, according to a Kelley Blue Book report.

Another article from the FT.com provides additional insights. "Greenflation threatens to derail climate change action – fossil fuels will be needed in the green transition, but vital supplies are being squeezed by ESG".

Important ESG considerations are no longer JUST a priority for developed countries. Take Latin America for example. Chile and Peru supply nearly 40 per cent of the world's copper. And now, mining projects that used to take 5 years now take 10 years or more because of their negative impact on the environment and social issues. In 2021, Chile adopted two environmental rules and is putting in place a new tax that could make some of its biggest mines unprofitable.

Same story with aluminium. As a reminder, aluminium is an important material for solar panels and will see significant demand over the next few years. But the bad news is that aluminium is one of the dirtiest metals to produce. China accounts for close to 60% of aluminium production and has recently put a cap on new smelting because of its important carbon footprint.

To sum this up, the much-needed Green transition is triggering big demand for energy and metals while ESG regulation aimed at protecting the environment and bettering social and governance issues is tightening supply. Thereby fuelling Greenflation.

In the short to medium term however, most experts expect inflation to fall in the second half of the year because of base effects, even if recent data points to record inflation.

An article on CNBC.com points out that U.K. inflation hit a 10-year high in November 2021 as the Consumer Price Index rose by an annual 5.1%, up from 4.2% in October and well above the central bank's target of 2%.

The Bank now expects inflation to remain at around 5% through the majority of the winter period, peaking at around 6% in April 2022.

In the US, according to a Bloomberg article titled *"US inflation hits 39 year high of 7% sets stage for fed hike"***,** U.S. consumer prices soared last year by the most in nearly four decades.

While some of these increases can be easily explained by supply chain bottlenecks that are starting to ease. The key point is that energy prices impact everything and have been and are likely to be stickier.

So, a degree of persistent green inflation does seem inevitable. And this leads us to the second very important question of this investigation: what should central banks do when it comes to Greenflation?

Raising interest rates and the cost of money could make life more difficult for governments' ability to finance their already significant debt burden. Not doing anything could also create a negative spiral of higher prices and higher cost of living for households.

This is a crucial point. To quote former US Treasury Secretary Lawrence Summers: "If we let inflation accelerate, there's almost no proven ability at the central bank to engineer a soft landing".

This leads me to a very interesting speech by ECB executive board member Isabel Schnabel on this very topic. Her speech was called "*Looking through higher energy prices? Monetary policy and the green transition"* and was delivered at the American Finance Association 2022 Virtual Annual Meeting. In it, she said, and I quote:

"Central banks, in turn, will have to assess whether the green transition poses risks to price stability and to which extent deviations from their inflation target due to a rise in the contribution from energy to headline inflation are tolerable and consistent with their price stability mandates."

In other words, should Greenflation spread to the wider economy and impact the Consumer Price Index basket, central banks will have no choice but to act in order to guarantee price stability.

But what happens when independent central banks and governments disagree? Can monetary and fiscal policies clash? Who wins?

To discuss this topic further let me introduce our special guest, Klaus Baader. Societe Generale Corporate and Investment Banking Global Chief Economist. He began his career 33 years ago after studying economics and political science at the University of Cologne and the London School of Economics and now leads a team of economists in charge of monitoring monetary and fiscal policies across 24 countries.

[Interview starts]

Kokou: Hi, Klaus. Thank you for taking part in this episode on Greenflation.

<u>Question 1</u>

Kokou: It is a theme that is on a lot of people's mind these days. Do you think the increase in commodity and energy prices triggered by the energy transition over the medium to long term could cause a widespread and persistent inflation globally?

Klaus: Now, greening it doesn't come free of charge and it has to be. I think the end user will have to pay for it. Now, you know, the question, of course, is how large will that impact be? And this, I think, is still a huge unknown. But if I were to take a wild guess, that's really just that, then I'd say, you know, it will add a few pennies per year, maybe 0.2, 0.4 something like that. But I don't think it'll be like one percentage point or even more.

Now, you know, not least, I think that that kind of imposition would be politically very difficult to implement. And let's not forget to what extent greening will occur, will to a large extent be determined public policy action. So, in short, yes, I think high inflation because of greening isn't inevitable in my assessment. But, you know, not of the sort of magnitude that would completely and fundamentally transform inflation dynamics.

Question 2

Kokou: So, this is an interesting point, because there is clearly empirical evidence that suggests that the decline in greenhouse gas emissions is not happening fast enough. Assuming there is a faster transition or a disorderly transition rather, do you think this could create more upward pressure on these commodities and therefore have a higher impact on inflation?

Klaus: The question, of course here is can we get to these goals without massive losses in output? And I think, yes, but what we'll have to do is invest a lot and what we'll have to do is to bend downward that trend of reducing the greenhouse gas and the CO2 intensity in general, the polluting tendency of GDP. Now that's a ratio that of course, has declined over time. It's just not declining fast enough. And in particular, it's not declining fast enough to offset the economic growth. So that's really what I think we have to work on it. It'll be it would be a disservice, I think, to everyone if we primarily achieve lower, lower environmental burdens through just lower growth.

We have to have better growth, more sustainable growth. And I think that's achievable. But we really have to get our head around this, and we have to really make an effort.

Question 3

Kokou: Yeah, this is an interesting point to have better growth and not just lower growth to deal with the greenhouse gas emissions. And at the same time, having an environment where commodity inflation remains within reasonable ranges. This leads me to another question. Do you think there could be a conflict between governments and central banks? On the one hand, government will most likely want to spend and borrow more to protect low-income households from higher cost of living, and we're seeing this already happening. And on the other hand, central banks who will likely want to raise interest rates in order to fulfil their mandate of price stability. Who wins in the end, in your opinion?

Klaus: Well, I think that as a general rule, I'd say that when central banks and government are in conflict, everybody loses. I think that's a very bad situation to be in. At the same time, I feel that this expectation of conflict is perhaps overdone. I mean, broadly speaking, you'd have to say that central banks have thrown their support behind in their environmental policies, although, you know, I think it's different degrees of commitment and probably a different willingness to really actively engage. I think here the ECB, at least under the present lockdown, has been maybe more proactive, and the Federal Reserve seems to me to be a bit more reserved in a bit more sceptical to what extent monetary policy can pursue those goals.

Now, there are a couple of things to say. As I said earlier, I don't think that greening is going to add so much to inflation. A bit. Now, the fact is that higher price pressures are going to run through the system, and they will in likely impact inflation expectation and likely impact wages. And in that kind of situation, you need to have somewhat tighter policies.

But you know, the other point that I want to do it to address is about **protecting households from higher prices.** Higher prices caused by environmental costs. Now, yeah, of course, we have to protect the most vulnerable households. That is absolutely fair. We do not want to have what they call what's now a new term I **guess, energy poverty.**

But at the same time, you know, we also have to raise prices to the end consumer because if prices do not go up sufficiently for the end users to pollute less, then polluting activity will simply not decline sufficiently to achieve the environmental goals that we have. And this is just simply you have to give people an incentive, you know, as an economist that nobody will be surprised and I say this, you have to give people incentive. And that incentive is not only the feeling of being a good citizen and protecting the planet, but also a financial incentive. And I think that that's an important aspect.

In the past, upward energy price shocks were almost always reversed very quickly. And that, of course, means that monetary policy, which works with significant lags, you really don't want to react to those. You want to look through those. Now, if this upward movement in energy prices is not going to be now a volatile short-term phenomenon that will persist over time, I think that it really weakens the case for looking through energy because the effects are not going to be transitory. They will be, if not permanent, they will certainly be around for a long time.

<u>Question 4</u>

Kokou: And this is actually the key point of the greenflation thesis, which is that these high prices both for energy and commodities will likely be more persistent because the demand for green assets or a greener energy is going to increase quite exponentially. How do you think government will be able to cope with higher interest rates at a time where they will probably require more borrowing to either finance that transition or support the economy?

Klaus: Hmm. Well, that's really a big question. I mean, definitely, I would say front load debt issuance as much as you possibly can and do it at a very, very low horizon. I mean, that makes sense anyway, because these are very long-term investments. Make hay while the sun is shining. Well, I don't think that the super low interest rates are going to be around forever, so I think you'd better get moving quickly.

Central banks are not, should not continue to be or over time they need to get away from being such an important. And so, you know, yeah, I think we'll have to raise taxes. It's as simple as that, I don't think, you know, I don't think that the public sector can finance all of the or even the majority of the investments that are going to be required to achieve our greening goals.

Question 5

Kokou: One question related to the conflict between government and central banks. Do you think that ultimately central banks can maintain their independence? And I'm particularly thinking of in the 70s, where Richard Nixon and Arthur Burns, who was running the Fed at the time, clearly didn't have the independence of the Federal Reserve in mind and that clearly created a negative, or I'd say a positive feedback loop in fuelling inflation. Do you think this is a risk as in from a tell risk perspective?

Klaus: Yes, I do. And you know, I think first of all, we shouldn't look at independence in kind of a monolithic way. You know, this may sound a bit harsh, but you know, I think that central bank independence has already been eroded to some extent. And that was the moment Central Bank decided to throw themselves into the government bond market and become an important player there.

And so, you know, I think that let's say that the interdependence between fiscal policy and monetary policy, I think has increased. Now, you know, in the end, of course, I think that credibility is a super, super important part of an effective and successful monetary policy. And so, I think in that sense, there isn't, in the end, a fundamental conflict between central banks and governments because, you know, if central bank independence is so compromised that monetary policy making loses its credibility, the effect is going to be that long term interest rates go up and potentially a lot. And so that doesn't help governments. And so, I think that there is there's a balance here to be struck. There are different degrees of independence, and I don't think that the degree of independence is the same now than it was really before the great financial crisis.

Question 6

Kokou: So, in a sense, one could think of central banks engaging in a climate change, quantitative easing or a green QE whereby they would be buying green bonds., to help government finance the energy transition

Klaus: Well, my answer is going to be more of what I think is the right thing, rather than as a as a prediction for the future. But I think that the central bank role is a very limited one, it is naturally a very limited one. Because, you know, I do not as I earlier said think that central banks should get out of the government bond markets in the way that they have been in it now. You know, central banks, of course, always have a big portfolio and it always has government bonds in it. But that really is not so much with the goal of implementing monetary policy directly and influencing, you know, duration risk in the market, etc., etc. as central banks have been doing in the more recent episode for about really the last 10 to 12 years, but rather there should be a much less activist policy.

So yes, I think, you know, should central banks as far as possible, move their bond holdings, which they're always going to have and not only of the domestic bonds, but also international bonds when it comes to foreign exchange reserves? Yeah, move as much as possible to the green alternatives. And here central banks are, of course, dependent on the issuance by governments of green bonds.

But no, I don't think that we should expect central banks to finance the green transition. I don’t think that that is a good path.

Kokou: Thank you, Klaus. This was incredible and very insightful, and hopefully we'll see inflation within a reasonable range for the next generation.

[Interview ends]

Conclusion

Greenflation might not be good inflation as it raises the costs of goods, but it is the necessary cost to meet net zero goals by 2050. Remember, there is no free lunch.

The answer is not necessarily less growth either but rather better or different growth. Maximising GDP growth at all costs no longer makes sense. But this might sound like an impossible problem to solve when you consider the impact economic growth has on people’s living standards.

To quote English novelist and journalist Matt Haigh “An impossibility is just a possibility you don’t understand yet”.
Whatever the outcome, we will have to adapt.

In the 1999 film, the Matrix, Morpheus offers Neo the choice between the red pill, which is the willingness to learn a potentially unsettling or life changing truth, or the blue pill which is the desire to remain in contented ignorance.

I’m not Morpheus, but we should definitely all take the green pill for action.

(Credits)

Thank you for listening to this episode of 2050 Investors. And thanks to Klaus Baader for his interesting insights on Greenflation.

I hope this episode has helped you get a better glimpse of the future of the energy transition! You can find the show on your regular streaming apps. Please subscribe, leave some stars on Apple Podcasts, leave comments anywhere you like and spread the word!

See you at the next episode!

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