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# Greenflation, the 'new' Green Goblin



Since the start of the year, financial markets have been navigating shockwaves with most central banks around the world fighting the big elephant in the room, namely inflation. And, indeed, inflation has been more persistent than expected by most, spreading fast and affecting everything from commodities to food, wages, electricity bills, rent, .. etc. As they try to bring inflation back to target, the hawkishness of monetary authorities has caused a sharp increase in bond yields, a significant sell-off in equities and a severe widening of credit spreads.

In economic theory, inflation has multiple facets, ranging from deflation (when prices decrease over time), disinflation (the slowing of price inflation), stagflation (a mix of stagnating economic growth and inflation), reflation (a classical case-study of economic recovery that usually results from a combination of expansive fiscal and monetary policy) and finally, hyper-inflation (generalised and significant price increases).

Some of those facets have frightening and ugly faces. Souvenirs of the oil price shocks of the '70s (which led US inflation to almost 15% in 1980) and the German Weimar Republic (with inflation reaching more than 20% on a daily basis in 1923) are probably amongst the worst

nightmares of central bankers.

While inflation is the word on everyone's lips today, there is also a new buzzword gaining traction: "GREENFLATION", a hybrid type of price pressure stemming from cost-push inflation and the green transition. Ironically, it seems that the battle to cool down the planet is heating up the economy. Costs associated with the green transition are supercharging inflation, and we should also note that these are sticky in nature.

In the current context of inflation linked to both energy and food [1], pundits and economists were quick to establish a potential causation link between inflation and the way societies address climate change.

Fortunately, in March this year, Isabel Schnabel, member of the ECB's Executive Board, proposed a new structure that distinguishes between three entangled sources of climate-related inflation:

### SOURCES OF GREENFLATION



#### Fossilflation

The inflation caused by a mismatch between supply contraction and strenuous demand on fossil fuel prices.



#### Climateflation

The climate change induced pressures on ecosystems (i.e. droughts and floods causing sharp increase in food prices).



#### Greenflation

The acceleration of green technologies to comply with climate objectives, requiring significant amounts of metals and minerals, unmatched by supply.

Fossilflation, and the fact that the fossil fuel market faces multiple constraints, was reinforced by Covid and the conflict in Ukraine, but mostly originated from a significant decrease of investment in oil & gas activities. Some sort of "chicken or egg" questions are abound on the underinvestment. Some experts simply believe that peak oil production already passed long ago, others are blaming investors and society for bashing fossil energy as they adopt new climate objectives. Here, the Green Goblin is definitely inspiring some sort of mudslinging aimed at the energy transition. While the complaints may be rational, they also omit the fact that oil majors (as well as more broadly commodity suppliers) have, for the most part, been obsessed with demonstrating to their shareholders that oil (and commodities) could be a good investment by returning cash to shareholders, performing buybacks and paying down debt, deliberately limiting their capital expenditures and avoiding new projects. The robust recovery post Covid, the conflict in Ukraine and higher fertiliser/fuel prices all contribute to higher food prices. But "**climateflation**" is also at play and if not yet putting upward pressure on prices it is, at least, increasing price volatility. The same logic is also applicable to both energy and metals. According to the IEA [2], over 50% of today's lithium and copper production is concentrated in areas with high water stress levels, while both industry and extraction have high water requirements: "Several major producing regions are also subject to extreme heat or flooding, which pose greater challenges in ensuring reliable and sustainable supply".

The energy transition has increasingly become one of the significant drivers of demand for industrial metals as global efforts to meet net-zero commitments and the Paris Agreement ramp up. And indeed, the push for a transition to a green economy has caused "greenflation", a surge in the price of metals and minerals, such as copper, nickel, aluminium, lithium and cobalt, which are vital components of electric vehicles, solar panels, wind turbines, ...etc. For illustration, the IEA estimated that manufacturing an electric vehicle requires six times more minerals than a combustion engine equivalent. Likewise, an onshore wind farm needs nine times more minerals than a gas-fired power plant. In the end, while demand is booming, mining capacities are not ready to absorb such demand, creating upward pressure on prices. Worth mentioning is that the IEA estimated that it takes 16 years for mining projects to move from discovery to production, making the scaling up of supply unlikely in the short term. There is indeed a price to be paid for going green and the energy transition is costly considering the vast amount of commodities required to scale clean energy up. Building solar panels, wind farms and batteries, all require a host of minerals, while most of those minerals, including copper, lithium, cobalt and nickel, are in short supply.

In identifying Fossilflation, Climateflation and Greenflation as key climate-related inflation drivers, policymakers are better placed to formulate potential solutions. Broadly speaking, greenflation is real but we should not oversimplify the ongoing reality by using the green transition as a scapegoat for all the pains associated with a broad acceleration of inflation: we should not let perfect be the enemy of good.

BROADLY SPEAKING, GREENFLATION IS REAL BUT WE SHOULD NOT OVERSIMPLIFY THE ONGOING REALITY BY USING THE GREEN TRANSITION AS A SCAPEGOAT FOR ALL THE PAINS ASSOCIATED WITH A BROAD ACCELERATION OF INFLATION: WE SHOULD NOT LET PERFECT BE THE ENEMY OF GOOD.

Claims that "going green could save the world, but we're all going to have to pay up for it" are loudening. The comeback of inflation has rekindled the debate around the costs and the benefits of addressing climate change. Paying more today for a sustainable future is out of sync for many citizens, companies, investors and governments which often have a short-term way of looking at things and exploding prices are likely to reduce acceptance among the population for the energy turnaround. The Yellow Vest movement, the "end of the world vs. the end of the month" perspective highlighted in 2018, and resistance to the sustainable transition agenda, all illustrate constraints in providing justice in the age of climate change.

Definitely not something to minimize, but objectively, change has been, and will always be, a contested process. Anyone that feels concerned and is involved in the fight against climate change, should understand that in fostering broad societal acceptance for the sustainable transition, we cannot rely on economic considerations alone, but also cultural factors, experiences and perceptions.

To conclude, trying to answer the question if the green transition could cause persistent inflation globally, the answer is that there is no free lunch, as greening our economy has a price and we will all have to chip in to pay for it. The combination of insufficient production capacity for renewable energies in the short run, subdued investments in multiple commodities and rising carbon prices means that we could be facing a protracted transition period during which energy bills will increase.

There is no escape from the fact that if we try to avoid the costs of action, inaction will come with much greater costs, human as well as financial. Obviously, a disorderly climate transition pathway would create even more upward pressure on prices and commodity demand.

Fighting climate change and protecting living standards are both essential and prioritising one appears to set back the other. As such, it is becoming clear that it's not only the supply that needs to be decarbonized - consumption habits also need to change.

As commented by Isabel Schabel, "while in the past energy prices often fell as quickly as they rose, the need to step up the fight against climate change may imply that fossil fuel prices will now not only have to stay elevated but even have to keep rising if we are to meet the goals of the Paris climate agreement."

As consumers, with too much demand chasing too little supply of commodities, there is always the option to make smarter decisions centred around efficiency and sufficiency.

As investors, carbon has a price and it's time for our financial and economic frameworks to integrate physical constraints into our traditional accounting system. As bankers, we have been spending most of our time calculating the present value of future cash flows. It's high time that the present value of carbon emissions is also included in our spreadsheets. Inspired by the wisdom of crowd, if something costs more, people buy less of it.

But we should not forget that we are in desperate need of faster changes to prevent or to limit catastrophic and irreversible damage to our planet. And we should take it for granted, our journey will not be a comfortable one, though it is unquestionably necessary.

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