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The European Money and Finance Forum

Inflation and Globalization
SUERF Robert Marjolin Lecture 2022

Lecture delivered by Professor Harold James at the 35th SUERF Colloquium and 49th OeNB Economic Conference "The Return of Inflation", in Vienna, 24 May 2022

It is a great honor to have been invited to deliver the SUERF Robert Marjolin lecture. Robert Marjolin was a great economist and politician, who as Vice-President of the EEC Commission in October 1962 inspired the Action Plan for the Second Phase of the Community, a document which led the way to a new institutionalized cooperation between European central banks, which in the long run paved the way to eventual monetary union. But not everything goes smoothly, and by 1975, in the midst of high inflation and exchange rate instability, Marjolin was convinced that the movement was going backwards, if at all. He blamed "unfortunate events, a lack of political will and insufficient understanding" (James 2012, 136). At the moment, with the reappearance of inflation, we are at a similar moment of hesitation regarding the course of globalization and the future of multilateralism.

What if the Great Moderation of the 1990s and 2000s was less the product of brilliant legislative or institutional design and followed simply from chance, good fortune, or the force of an eternal factor, globalization? Would then a deglobalization threaten a return of the inflationary specter? And then can a new sort of globalization reappear as a controller or moderator of the new inflationary pressures?

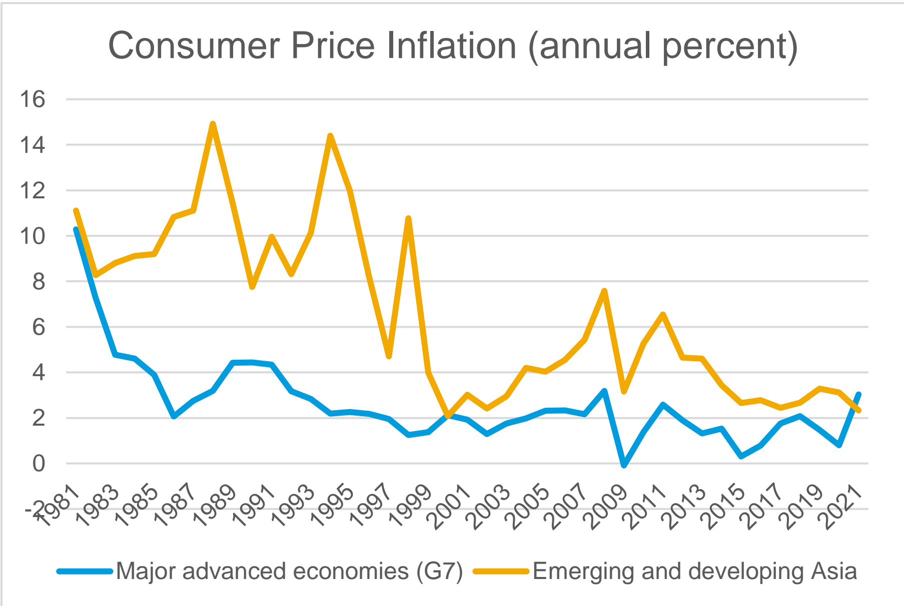
Two related propositions appear as self-evident in modern thinking about monetary policy, whether among academics or policymakers. The first is that inflation is traumatic and undesirable. There is no doubt that extreme inflations or hyper-inflations lead to a collapse in trust and social disintegration. The monetary mechanism appears as one in which redistributive claims are fought out between powerful interests, and the marginal become more vulnerable. In federal structures, such as Germany in the Weimar Republic, the

Soviet Union, or the Yugoslav federation, there is the additional suspicion that the center, Berlin, Moscow or Belgrade, exercises a tight political control over the distributive levers, and hence that for the regions, separation and monetary autonomy becomes ever more attractive. And even moderate inflation drives class war. Profits have been surging in the recent inflationary uptick, and companies are amply using their pricing power. Just one example of the result: Senator Elizabeth Warren likes to quote the allegedly grasping chief executive of the grocery chain Kroger, "a little bit of inflation is always good for us." (Warren 2022)

Second, and following on from the first proposition, the primary purpose of a modern central bank is to push back on all the inflationary pressures, and deliver price stability. Specific mandates, often in connection with a further but secondary mandate of maintaining full employment, or securing maximum output, or simply acting in conformity with the overall objectives of government policy, are embodied in legislation or, in the case of the ECB, a treaty.

Judged by these criteria, central banks, and governments more generally, have been highly successful over the last thirty years. Across the world, a transition to a low inflation regimes occurred, first in rich industrial countries, but then in emerging markets, first in Asia but ultimately also in Latin America, where inflation had been a way of life (Figure 1: Global CPI Inflation Rates 1980-2021). This beneficent picture was sometimes referred to as NICE (Non-Inflationary Constant Expansion, or alternatively Nearly International Competitive Equilibrium). There are two views currently on the low inflation era. The first, that it is under threat. The second, that it is definitively over.

Figure 1: Global CPI Inflation Rates 1980-2021



Source IMF WEO

If it is correct – as I believe it to be – that the twin Covid and Russia-Ukraine crises mark a fundamental caesura or structural break in the world economy, then the mission of central banks will necessarily become controversial, and perhaps also politicized. First, because full employment becomes elusive when there are major shifts in the labor market, with large areas of economic activity subject to offshoring or automatization. In the last thirty years of globalization, technology and trade led largely to a loss of manufacturing jobs, and a displacement of manual workers. Many interpret the social turmoils and the political radicalization of the 2010s as responses to those forces. But we are now seeing, in part driven by pandemic era shifts, a displacement of service jobs: administrative office jobs can be done remotely, but also by algorithm. Telemedicine, and remote learning, will displace workers in hospitals, schools and universities (incidentally rising medical and educational expenses were major drivers of increases in the cost of living over recent decades). There will be new and disconcerting types of unemployment in services and white-collar work. Fiscal packages, which were seen as the cure for a threat of secular stagnation, will not help unless they are designed as precisely targeted mechanisms for facilitating a structural transformation.

Second, price stability is problematical when there are major structural shifts, as relative prices should be expected to move dramatically. In these circumstances, measurement will be controversial, and the calculation of cost increases will seem idiosyncratic. The pandemic also coincides with an altered awareness of our relationship with the environment. 2021 was not only a year of viral devastation, but also of unique environmental catastrophes, and the issue of financing a transition to green or clean energy became more urgent. In adjusting to the new challenge, and not just to the short-term dislocation of Russian gas supplies, energy costs should rise in relation to other prices.

Third, the balance of risk is different to that of 2008 or 2010, when central banks mounted heroic rescue operations and were able to prevent a new Great Depression. Instead of a worry about debt, there is perhaps too much confidence that high levels of government debt can be sustainably financed, and too much belief that governments can find solutions. Covid has led to a push for governments to do more, and at the same time increased the extent of fiscal strain. Greater military expenditure, price surges, shortages, scarcities and the need to deal with the humanitarian challenge of large refugee movements, will all add to the strain. The effect of the past decade, as well as the new extent of the strain, leads to the assumption that central banks will be pushed by politics to fall in line.

But there is a profound challenge, as the successes of the 2010s rely on the assumption that government debt in advanced countries and also in many (but not all) key emerging markets is practically free from inflation risk, and that governments will in consequence be able to borrow from investors at a lower rate than the investors themselves use to discount the future. This can be thought of as the extraordinary (perhaps exorbitant) privilege of the safe asset. It is being challenged by disruptive forces.

The Intellectual Problem: Design or Chance?

What accounts for the changing character of the policy problem? First, then the globalization link. By the early twenty-first century, some commentators thought they could detect a relationship between globalization and price movements. Strikingly, the clearest early articulations of this view came from policymakers rather than academics. Fed chairman Alan Greenspan explained in 2005 that globalization and technical innovation "would appear to be essential elements of any paradigm capable of explaining the events of the past ten years", i.e. the Great Moderation (Greenspan 2005). Claudio Borio observed that "we may be underestimating the influence that real factors have on inflation, even over long horizons." (Borio 2017, 1)

This view gradually also gained, rather late in the day, some prominence in academic literature (Forbes 2019). Both production factors, capital and labor, play a role. Charles Goodhart and Manoj Pradhan list globalization along with underlying structural trends, demography, and the macro-economic balance between savings and investment as the "interacting forces" that produced the inflation outcome (Goodhart and Pradhan 2020, 69). The savings-investment balance crucially might be a global one, not a national peculiarity. Moreover, a global labor market conditioned national labor market responses. A paper for the recent ECB strategy review concludes that "Headline inflation rates have become more synchronized globally, largely because commodity prices are increasingly determined by global factors" (ECB 2021).

There are variants or nuances in this position. A materialist position held that inflation reduction came about because of the globalization – in trade and migration – generating consistent downward pressure on wages. The alternative, an ideas-focused or neo-Weberian analysis, would see the outcome as the product of an intellectual shift, the victory of an idea, the so-called "neoliberalism" that was then spread around the world as the Washington Consensus. Both camps agreed that global influences were dominating both monetary policy and monetary behavioral outcomes.

Neither interpretation was widely shared, at least until recently when there was widespread bewilderment about why the post-Global Financial Crisis orientation of monetary policy had persistently and singularly been unable to raise inflationary expectations. Both the suggestion that global forces or global policy ideas were pushing disinflation encountered a substantial pushback. Laurence Ball, who restated the mainstream position, usefully broke the discussion into three questions:

"Has globalization reduced the long-run level of inflation?
Has it affected the structure of inflation dynamics, as summarized by the Phillips curve?
Has it contributed substantial negative shocks to the inflation process?"
and then provided a pithy response: "a short summary of the answers is no, no, and no." (Ball 2006)

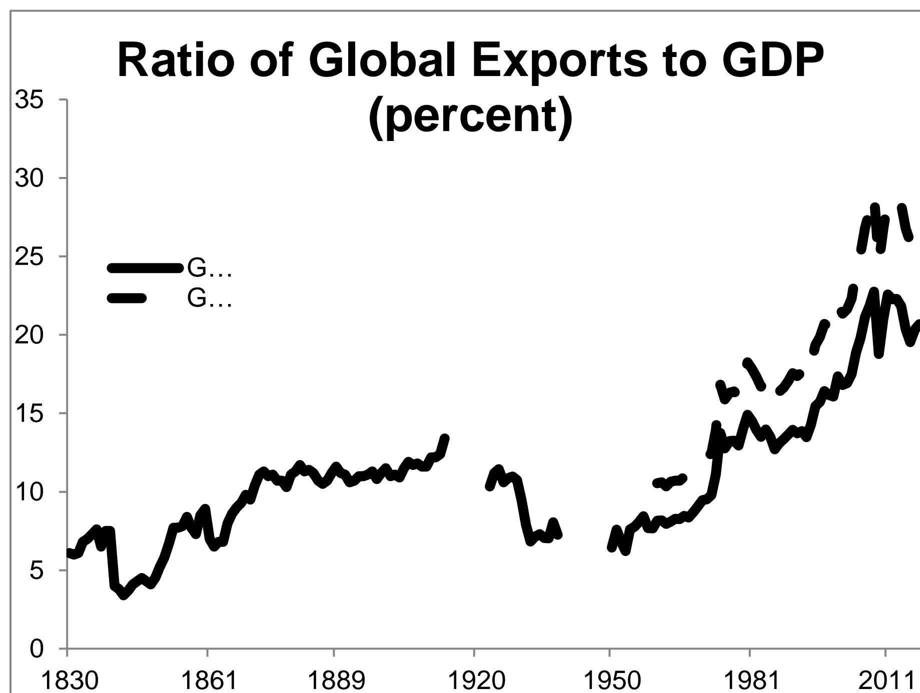
This debate about the causes of disinflation was fundamentally truncated because it does not adequately take into account the historical periodization, in particular the relationship of inflation and globalization at the ***outset*** of the new globalization process, and hence does not think about the social and intellectual

history that might chart the transmutation of an intense concern with prices into a broad psychological and political shift.

The modern assessments depended on the assumption that recent globalization (defined as the increased flow of capital, goods, and people) only really came in the 1990s or the 2000s, and a date for the beginning was often set as China's entry into the WTO in 2001. This was after a transition to a monetary policy regime that revolved around a low inflation target in most industrial countries. But, as Ball correctly noted, the major surge of world trade as a share of output occurred in the 1970s, in a high inflation era. Such a redating of the globalization story, however, would lead to a different set of answers to the Ball questions: yes, yes, yes.

Modern globalization appears as two, of perhaps two and a half, distinct episodes (Figure 2: Ratio of global exports to GDP (percent)). What is usually thought of as the first age of modern globalization began in the middle of the nineteenth century. It was interrupted by the First World War, after which there was a desperate attempt to revive globalization – with a more robust institutional framework – in a "half episode" that quickly failed with the Great Depression or what I have called "The End of Globalization" (James 2001). And then a new globalization took off in the 1970s.

Figure 2: Ratio of global exports to GDP (percent)



Source: Catão and Obstfeld 2019

The antithesis of globalization can be found in periods of conflict and war, when economic advantage appears as a zero-sum game, and a fiscally driven inflation drives up prices. This was the background of

the great sixteenth century price inflation, dominated by the clash of Habsburg and Valois, but also of the great wars of the mid-nineteenth century, Crimea and then the wars of German, Italian and U.S. unification. Twentieth century world wars interrupted globalization. Recent commentators like to redescribe interwar catastrophe as the "global Thirties", but it should really be clearly stated that it was violence, war and deglobalization that in that decade became globally compelling political phenomena (Patel 2016, Matera and Kent 2017, Link 2020). There are legitimate fears that Putin's onslaught on Ukraine might produce another such catastrophic interlude of conflict and deglobalization.

Globalization then operated to reduce inflation-levels: both in the nineteenth century, when there is a stark contrast between the third quarter of the century, with dramatic price surges during business cycle upturns, and the generally deflationary and subdued experience of the period from 1873 to 1896; and in the late twentieth century. It profoundly but confusingly altered the Phillips curve dynamics of a trade-off between inflation and employment. The move to global markets in fact resulted in price pressures that constituted a substantial favorable or "positive" supply shock that generated disinflationary pressures.

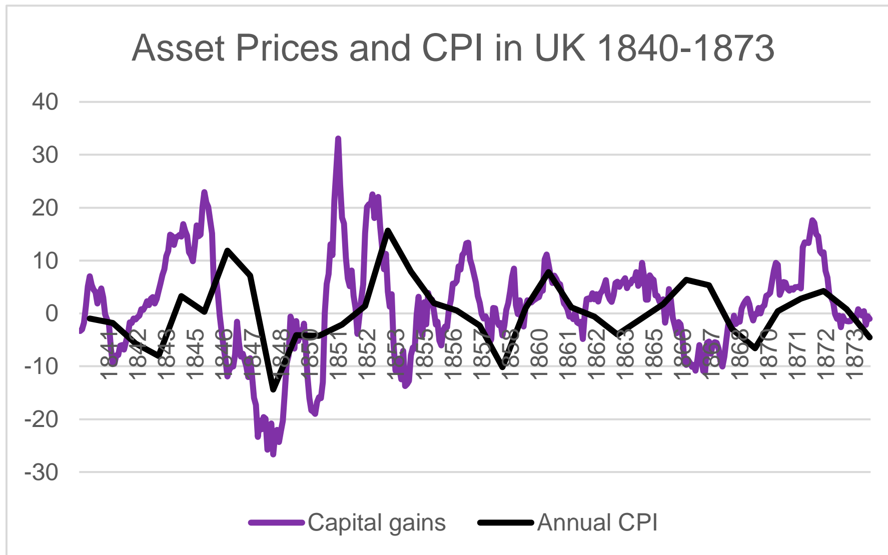
History can illuminate the stages of the disinflationary process and its mechanisms. Both the mid-nineteenth century and the late twentieth century globalizations may be explained as technologically driven, and some of the most important productivity gains involved the cost of transport. It was the steam engine that drove both the opening up of continents (with railroads) and oceans (with steamships). It was the container that reduced the cost of transporting goods after the 1970s. But both innovations substantially predated the moment at which they were economically transformative: Matthew Boulton and James Watt were creating operational steam engines in the 1770s, and *The Autocarrier*, usually thought to be the first container ship, was launched in 1931. It required a specific set of circumstances to realize the transformative character of the innovations: that was the environment that price disruptions produced. Policy choices were involved: the removal of impediments to commerce, but also a consensus around a stable and internationally applicable monetary framework, whether the gold standard or a modern inflation targeting regime.

In each case the transformation, the beginning of the globalization push, was driven by a fear of scarcity, and its political consequences. The 1840s provided the initial spur to modern globalization. After the 1970s, a new globalization based on complex supply chains developed.

The mid-nineteenth century upheavals began with a dramatic negative supply shock: weather-induced harvest failures all over Europe in the mid-1840s, supplemented by the effects of the potato blight, and then widespread epidemic disease, typhus and cholera. It led to political revolution throughout the continent. The longer term response involved a dramatic transformation of politics and business. There was a revolution in government, when public authorities took on many more tasks concerned with managing the economy, including guiding the course of trade liberalization. Business was also revolutionized through new corporate forms, the limited liability joint stock company as well as universal banks that mobilized capital in innovative ways. The combination of new gold supplies and banking innovation produced monetary and price surges that were closely correlated with the business cycle, with dramatic spikes in 1852-3, 1860-1,

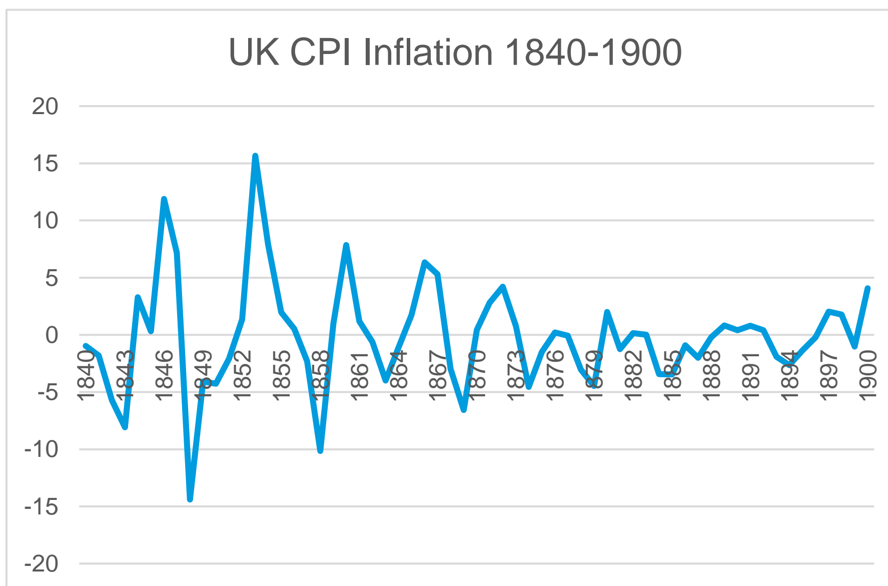
and 1866 that were also reflected in asset prices (Figure 3: UK Asset Prices and CPI 1840-1873; Figure 4: CPI Inflation 1840-1900). Higher prices drove investment and innovation, and thus laid the path for a way out of the scarcities and shortages of the mid-century.

Figure 3: UK Asset Prices and CPI 1840-1873



Source: Bank of England, Millennium of Macroeconomic Data; Campbell Grossman Turner 2021

Figure 4: CPI Inflation 1840-1900



Source: Bank of England, Millennium of Macroeconomic Data

That inflationary experience in price surges in the 1850s and 860s contrasts strikingly with the world after 1873, when price spikes (for instance in 1880) were extremely modest. Globalization then altered price

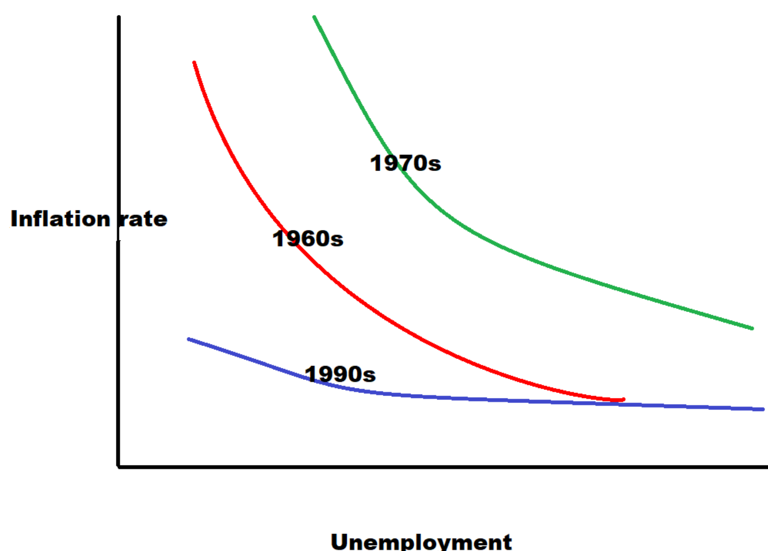
variability. The new stability was additionally bolstered by the near universal move to the gold standard, as countries sought a credibility mechanism that would allow them to attract capital inflows, or to globalize further.

The dynamic was repeated a century later, again with a supply shortage and scarcities at the focus of attention. Everyone remembers the oil crisis and the "panic at the pumps" (Jacobs 2016). But the defining economic parameters that bred 1970s pessimism and malaise lay domestically, in the combination of high inflation with high unemployment and low growth. The driver was a widespread belief in the capacity of economic growth to raise productivity, make more growth, and push down prices as a consequence of productivity gains. An influential model evolved by Nicholas Kaldor looked at the long-term relationship between technical progress and the rate of growth and derived a "technical progress function" (Kaldor 1957). An increased manufacturing sector would lead to a self-sustaining virtuous cycle of higher rates of growth and hence also of higher wages. The influential economist Roy Harrod then drew the logical consequence that stronger demand growth might reduce inflation (Harrod 1972). These optimistic expectations were severely disappointed.

The position of the Phillips curve relating inflation and output shifted. In the 1970s, as nominal wage illusion faded, the curve shifted upwards and to the right. After the 1980s, however, with output no longer determined in a purely national context, increased demand no longer necessarily pushed prices up. The curve flattened and moved downwards. In the longer term, however, some commentators would extrapolate the new logic with the claim that there was a natural rate of unemployment, consistent with any level of inflation, and thus that the curve was in fact **vertical**. Central bankers spent long hours in mystification at the apparent flatness of the curve and the difficulty in estimating it. The confusion between short term reactions and long term theories led to the conclusion that the curve was dead: either the flat position or the vertical versions simply reflected rigor mortis (Figure 5: Phillips Curves). There was further uncertainty as calculations of a natural or non-accelerating rate of unemployment showed a steep fall in the 1990s, with the suggestion that technical shifts would alter the dynamics of the labour market.

The new Phillips relationship was also a consequence of an under-appreciated consequence of transformative technical and economic change. New technologies allowed new production, as well as a shift to services in rich countries. But the labor for the new activities was not instantly available, and a substantial transfer of people from one area to another was incompatible with the policy emphasis on full employment. The problem was most acutely diagnosed, not in the case of western market economies, but in the world of Soviet planning, where the great Hungarian economist János Kornai analyzed how there could be no real economic system from which both 'excess demand and excess supply had been eliminated: "'Optimization'", he wrote, "is not possible: we want full employment, but we do not want labor shortage. They are joint products, which, it seems, necessarily appear together." (Kornai 1980)

Figure 5: Phillips Curves



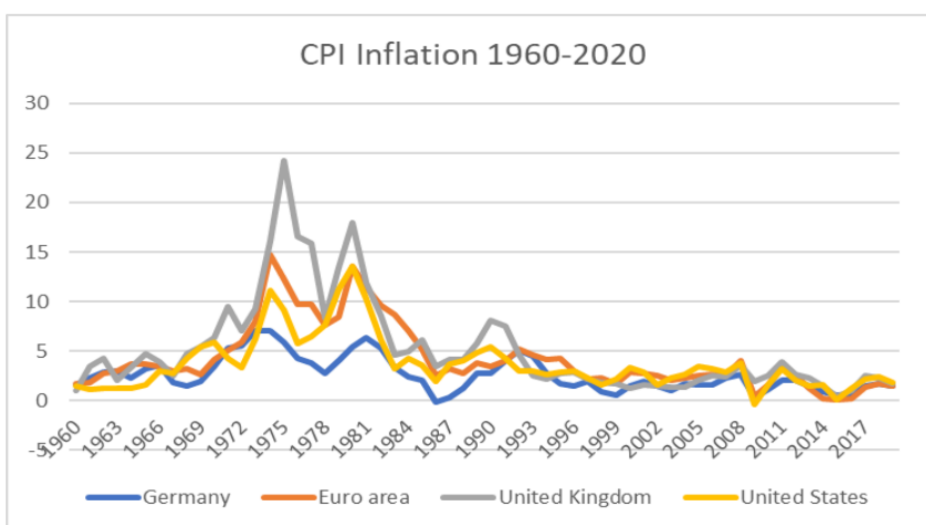
In fact, attempts to represent the Phillips curve looked more and more confusing. This might have been because the key underpinning of the verticality thesis, the constancy of the natural (or non-accelerating inflation) rate of unemployment, looked ever more problematic, with estimates varying between 5% and 2%. In is not surprising that particular microeconomic factors might play a role: what was the labor force trained to do? Italian clothing and textile workers thus were famously much more vulnerable to a globalization impact than workers in precision engineering trades. The same globalization effect might also explain why calculations of any output gap are so unreliable, and so prone to later revision (Orphanides and van Norden 2002).

The most dramatic impact on inflation expectations of the 1970s came from commodity prices, and in particular from the two oil shocks of 1973-74 and 1979. Negative supply shocks may just be temporary, in which case we may expect a short surge in inflation, then a deflationary interlude, and a relative return to normalcy or the pre-shock pattern of price behavior. They may be persistent, with expectations that the price of the scarce good will be permanently high: modelling of that scenario suggests that the long term effect, after an initial spike, on underlying or core inflation would be a small augmentation. Finally, the shock may be the beginning of a long-term continued upward movement in the price of the scarce good, and in this case the modelling would suggest that the core rates of inflation continue to rise (Blinder and Rudd 213). The shock of the early 1970s was a response to strong global demand and can thus be considered initially as a strong globalization headwind.

The higher oil price might be regarded as the imposition of a new (wealth and income reducing) tax; and thus the industrial countries mostly decided not to adjust immediately (Kilian 2009). The immediate response in most countries was to accommodate the shock by using government spending as a shock

absorber, as well as pushing expansive monetary policy. The fiscal and monetary accommodations pushed up inflation, which rose to 11.0% in the United States in 1974 (and then, after a second oil shock, to 12.0% in 1980), and to higher levels in some other countries: in the UK CPI inflation in 1975 was 24.2%, and in 1980 18.0% (see Figure 6: Comparative CPI Inflation 1960-2022). Countries then employed differing strategies to reduce their fuel imports: France pushed nuclear energy as an alternative to carbon, the UK developed oil and gas fields in the North Sea, Germans and Japanese accepted greater fuel economy: the United States alone thought it did not need to act until a fuel economy campaign was belatedly launched in the late 1970s.

Figure 6: Comparative CPI Inflation 1960-2022



Source: World Bank Data

It appears paradoxical that the oil shock in the end created more globalization rather than a turn to economic nationalism. One mechanism that drove the new linkages was a financial revolution, which transferred the large surpluses accumulated by oil producers into lendable funds in big international banks. The development of international capital markets, offshore and thus largely free of direct government control, was the major financial innovation of the period. The availability of money made resources available for governments all over the world that wanted to push development and growth, and international demand thus surged. The alternative strategies, such as Labour's siege economy, now looked like a mechanism that would cut off access to markets and prosperity.

All these expansions, liberalizations, and openings were launched with relatively high levels of inflation, produced by expansionary fiscal and monetary policies as well as by financial innovation. Inflation may indeed initially have made adjustments in production easier, because relative prices could move easily without provoking fears of price and wage cuts, at least as long as some degree of nominal wage illusion remained. Once that wage illusion disappeared, inflation only generated confusion about prices and

uncertainty about investment for the future. Fighting inflation then soon came to be the major policy issue for the industrial world: a test of competence and of the capacity of governments to manage the benefits of openness.

Higher demand was then met by supplies produced by a global labor pool (that constrained labor bargaining power). Interest rates were then at the same time pushed down by a global capital pool. Responding to these two phenomena raised new questions about how policy should be formulated.

The Choice of Inflation

Does scarcity inevitably produce inflation? Of course not. It dramatically changes relative prices, but not the overall price level. But then inflation is repurposed as a policy solution, an attractive way of meeting the challenges of scarcity. It is true that inflation is “always and everywhere a monetary phenomenon”, but we need to explain more (Friedman 1968). Just as good policy is not the sole driver of good inflation performance, higher inflation cannot simply be ascribed to bad policy or flawed economic paradigms. The mid-nineteenth century inflation was in part a consequence of the expansion of gold production, above all from California; but it was also driven by financial innovation. Inflationary surges went along with business cycle upswings and asset price surges.

The great inflations of the twentieth century, occurring also at moments of scarcity in and after the First World War, as well as in the 1970s, in the aftermath of a long economic boom that drove up commodity prices, can be explained easily in terms of a modern theory of **fiscal dominance**. The budget of the state is so committed to a large amount of debt service that it compels the monetary authority to monetize debt and drive down interest rates. That logic is most apparent in cases of major military conflict, when monetary policy becomes subordinated to overriding national priorities. It is also in evidence after the substantial expansion of government debt in response to the 2008 Global Financial Crisis, which has set a trap from which escape is difficult. But there is also a parallel operation which is sometimes termed **financial dominance**, where the financial sector – or the business community – has amassed so much debt that monetary authorities are compelled to monetize in order to prevent an avalanche of corporate bankruptcy and failure. This additional driver of inflation was especially a phenomenon of the recent wave of financialized globalization, and was exemplified by the Greenspan put: the idea that the stock market provided a central guide for Fed policy.

There might then be a strong case to be make on causality: that inflation helped create a new policy environment. As the costs of inflation became clearer, and the policy choice politically costly, looking for ways of calming inflationary pressures became more attractive, but the disinflationary cure was inevitably temporarily uncomfortable. Milton Friedman put the point like this: “Inflation is just like alcoholism. In both cases when you start drinking or when you start printing too much money, the good effects come first. That

is why, in both cases, there is a strong temptation to overdo it—to drink too much or to print too much money." (Friedman 1980) How to wean the patient off the bottle? Would a change in what the monetary policy doctor prescribed suffice? Globalization – and that includes looking at the experience of others - came like a cold water bath as a way of tackling a bad hangover.

There is thus a need to think of much broader forces that make for particular inflation outcomes. It may be that the best explanations lie in the concept of a social pact that requires inflation, in that inflationary outcomes are initially seen as a cheap or convenient way of defusing social tension: generating or preserving employment in a politically fragile setting, as in Europe after the First World War, or in a global crisis of democracy and legitimacy in the 1970s. Perhaps it is then appropriate to think of a third explanatory category of **social dominance** (Hirsch and Goldthorpe 1978).

Alternative Tasks

Deglobalization may be an initially appealing way of responding to supply shocks. But it raises costs, and cannot really solve the underlying problems. Just now, for very particular reasons, the philosophy of trading as much as you can, and with as many peoples as you can, looks hopelessly naïve. In an economy impacted by pandemic-induced scarcities, it looked suddenly attractive to use control of raw material supplies as a way of applying political pressure. The Soviet Union had bound central and eastern Europe by cheap energy in the 1970s and 1980s; Russia took on that tradition as a way of tying in European states. But the model is contagious: Algeria has raised the threat of cutting Spain off from its gas supplies as a way of punishing Morocco and supporting the Sahrawi independence movement in the Western Sahara.

The vulnerability that energy supplies may create was highlighted by the coincidence of the finishing of the NordStream2 gas pipeline from Russia to Germany and the Russian invasion of February 24. It is easy to heap opprobrium on the German drivers of the project, especially on the unrepentant former Chancellor Gerhard Schroeder, who defiantly refuses a *mea culpa* and still is proud of his role as a board member of Gazprom and a potential mediator between Russia and the West. But the mistake lay not in the building of the pipeline, but rather with the other energy decisions that made for a one-sided dependence: the abrupt exit from atomic energy after the Fukushima catastrophe, the turn to wind and sun sources of renewable energy that could not supply consistently and hence needed to be supplemented by imported gas, and the failure to construct LNG terminals to import liquified natural gas from the US or the Middle East. Any supply thinking needs to focus on resilience. Dependence on one source makes for vulnerability.

Here lies the key: trade may indeed be pacifying, commerce might create better relations, but for that course to succeed, a multilateral system with multiple sources is much more effective than the cultivation of bilateral relations. At the beginning of a European wave of revolutions in 1848, at a moment of acute ideological polarization, the greatest nineteenth century British foreign policy thinker and statesman, Lord

Palmerston, formulated the philosophy that his country had no eternal allies and no perpetual enemies, but rather eternal and perpetual interests.

This maxim is just as surely true in the twenty-first century as it was in the nineteenth. It is impossible to predict quite how the domestic politics of countries will develop, and how such developments might affect their trade relations. We might think more about the double shock of 2016, when the countries that had been the leading lights of multilateralism, the UK and the US, turned away with Brexit and Trump. Who can guarantee that there may not be a new Trumpist administration in 2024? Or who can be sure that Russia won't embark on a profound political reorientation, even a democratization, in the wake of a disastrously mishandled war that was brutally destructive of Russian as well as Ukrainian lives?

Trying to identify friends will always be a deeply problematical exercise. There is dismay in Washington and Europe about the long list of countries that did not support censure motions in the United Nations General Assembly. But it would be unwise, and costly, to let those votes influence the future direction of trade. Trading with the enemy legislation makes sense in all-out conflict. In dealing with common problems – diseases, carbon dioxide emissions that move across borders and between continents – there are however no enemies, but necessary partners. The same is true for the global threat of hunger that has been the terrifying outcome of Russia's actions. Friend-shoring, as recently advocated by Treasury secretary Janet Yellen, won't feed people: and it is likely to make many many enemies (Yellen 2022).

In the new environment, some of the old arguments around CBI will appear again. In the aftermath of the First World War, central banks that continued a monetary accommodation of fiscal dominance had justified their policy as a patriotic necessity. Central banks fundamentally controlled the cost of government debt, and hence they were subject to irresistible pressure. The language of patriotism was also enunciated as the Truman administration sought to persuade the Fed not to push too hard against an inflationary surge in the midst of the Korean war. When Truman received the entire FOMC he started with an amazingly explicit explanation of US foreign policy. He "emphasized that we must combat Communist influence on many fronts. He said one way to do this is to maintain confidence in the Governments credit and in Government securities. He felt that if people lose confidence in Government securities all we hope to gain from our military mobilization, and war if need be, might be jeopardized" (Eccles 1951). It is striking that former chairman of the Fed Marriner Eccles, the major dissident who was now very hawkish on inflation, also laid out an alternative view of foreign policy: he did not like the Korean war, and worried that the US "was stumbling into an uncharted Asian morass without reckoning the costs." (Hyman 1976, 339)

What is the modern equivalent of that argument about national security? In some countries the language of the hyperinflation German central banker Rudolf von Havenstein or of Truman about defense and national interest appears. That is dramatically evident in the statements of Turkey's President Erdogan about the high interest rates as "the mother of all evil," orchestrated by "Turkey's enemies, who are hiding behind currency rate speculators, the interest rate lobby, or credit rating agencies." The push to control

interest rates – the motivation of Havenstein or Truman – is evident in the dismissal of central bank governor Naci Agbal, after he put interest rates up by 2 %.

Before February 24, 2022, European countries and European politicians would not have argued in Erdogan terminology about national needs. But they do point to a further set of policy desiderata – the twenty-first century equivalent to overriding national interest – in making the case that the existential threat of climate change requires a new orientation of the central banking framework, and a new element of fiscal-monetary interaction. The ECB has been especially innovative in this regard, but also runs into the difficulty that some of the bonds taken in the asset purchasing program (from airlines and other carbon producers) do not look climate neutral. On the other side of the Atlantic, the Fed is increasingly thinking about policy measures that can counteract racial inequalities. And then, after February 2022, central banks are being harnessed into a sanctions regime that is pushing an incipient deglobalization. In all these issues, the priorities of central banks in tackling pressing policy questions cannot be isolated from more general orientations of government policy.

The wider activity of central banks, the expansiveness of their mission, points in one direction: they need to be more firmly embedded in the overall institutional framework of a democratically elected government. With such ambitious tasks, with broad and potentially unknown and unknowable political and social implications, they cannot be left as a delegated operation focusing on one narrow goal, monetary stability. And yet there is a social need for monetary stability too: the central function of the new understanding of central banks.

Money may become divisive. Some conservatives are beginning to argue that blockchain offers a more stable – or deflationary – monetary order. The Republican challenger Josh Mandel in Ohio for instance defines his position as "pro-God, pro-family, pro-Bitcoin" (Independent 2021). It is possible to imagine extended "optimal digital currency areas," where like-minded people with similar consumption and behavioral patterns interact with money as a binding common language, independent of state frontiers. This might be a benign future of self-realization; but it is also possible to see it as the promoter or accelerator of a new sectarianism and new divisions. Indeed, the American right is starting to think of an alternative metaverse, in which there are separate dating networks ("The Right Stuff," funded by Peter Thiel because "conservatives deserve an easy way to connect": Axios 2022); separate communications platforms, with the video-sharing Rumble replacing YouTube, and the messaging services Parle and Gab instead of Twitter); and finally money, where a blockchain MAGAcoin has been launched as a stable, indeed deflationary, option for the MAGA community, with the intention of also using the resources generated to finance MAGA activities. And there will be left-wing variants: indeed existing blockchain systems have different political flavors, with Ethereum and XRP more to the left than the more conservative / libertarian bitcoin. So will politically motivated sub-units with cross-border ties choose different inflation rates, in the way that countries' monetary regime responded differently to the challenges of the 1970s. There is then a

risk of political societies breaking apart, divided by different moneys, with fragmented sub-units measuring their strength by their relative exchange rates.

There is thus a strong argument for providing a standardized public currency that does not depend on credit: we could think of it as based on tokens. Existing notes and coins do this, but they cannot be used in as many transactions or as conveniently as bank transfers. This is thus the case for the provision of CBDC, as laid out very clearly by Markus Brunnermeier and Jean-Pierre Landau (2022) in their report for the European Parliament.

Reflecting on the world in the aftermath of severe supply shocks – such as that of the 1840s, or the 1970s, or again in the scarcities induced first by Covid and then by the Ukraine war – is liable to make for gloom, and to conclusions that the world is going backwards or deglobalizing. There is an initial inclination to take protectionist measures. But this is exactly the moment when effective and credible policy is needed. A key test of the effectiveness and the credibility of central banks will thus derive, not from their ability to manage the credit based economy, but also increasingly from the demand of citizens for stability and for an alternative to the yo-yo instability of the credit economy and the inherent divisiveness of private currencies: for a center of stability in a world of radically changing expectations.

Secondly, we might reflect that higher inflation is not necessarily a sign that globalization is on the retreat; it is rather an indication that more opening or more globalization is required. Perhaps I should even go further and made the observation that inflation is providing a signal that more rather than less globalization is on the way. But as in previous globalization surges, it will take a different form than the last globalization push.

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