# Popular Delusions

## Some useful things I've learned about Germany's hyperinflation

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**For all the ink spilled analysing two of the 20th century's greatest economic tragedies - the Great Depression and Japan's lost decade(s) - little has been spent on arguably the greatest of them all: Germany's hyperinflation. It may be because we're confident we understand it. Everyone knows that unfettered money printing eventually leads to explosive inflation, don't they? The thing is, economists knew that then! So what *was* going through the mind of the central bank head who presided over history's most pathological currency debasement?**

■ Is anything more dangerous than a nonsensical idea taken seriously? The esteem of economists has been dented by the financial crisis, though not so severely that the financial community treat economists' views with anything approaching the derision they deserve. The macroeconomic *meme* is resilient indeed!

■ Sadly, the situation isn't new. Macroeconomic theory has a long and distinguished history of seducing policymakers into thinking utopia is just around the corner, a trick brought about by untested hypotheses masquerading as empirical knowledge. Believe it or not, a school of economic thought that was prominent in Weimar Germany during the hyperinflation – and particularly at the Reichsbank as it was aggressively monetising the government deficit – held that the escalating money supply had *nothing* to do with the exploding rate of inflation!

■ More on that later. For now, in this new world of policymaking experimentation, it's worth recalling the British Ambassador to Germany's observation on the hyperinflation that "*no-one could anticipate such an ingenious revelation of extreme folly to which ignorance and false theory could lead.*"

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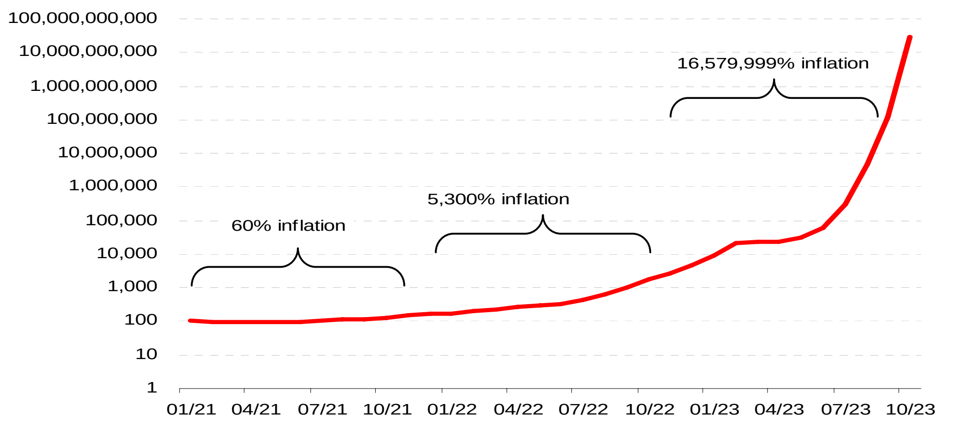
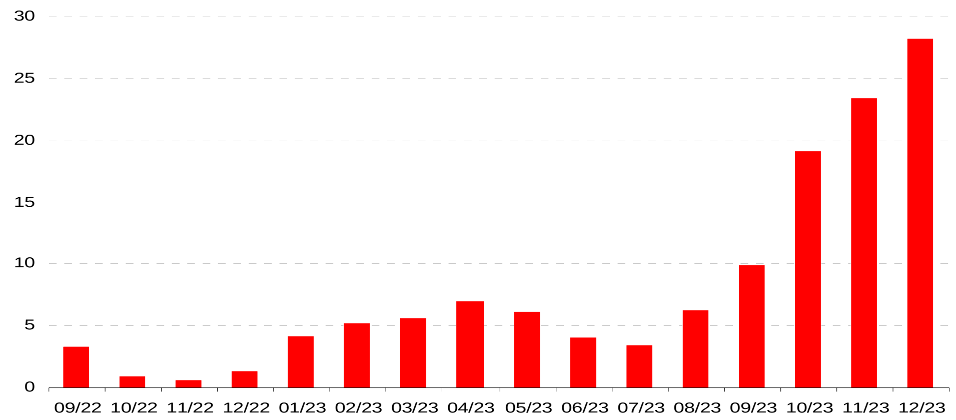
**Weimar Germany CPI (log scale) (inflation per annum)**




Source: Bresciani-Turroni (1931), SG Cross Asset Research

It is often said that the Great Depression so thoroughly destroyed the social fabric of the industrialised world in the 1930s that WW2 became inevitable. But this overlooks the role of Germany's hyperinflation, the horror of which seems underappreciated in the Anglo-Saxon world. At the height of the crisis in 1923, for example, industrial production fell by the staggering annual rate of 37%. In roughly the same single year, the unionised unemployment rate rose from under 1% in late 1922 to *nearly 30%!* (and according to Frank Graham, almost *half* of the total workforce became unemployed at this time).[1] This, remember, is at a time when the rest of the world economy was booming.

**German unemployment during hyperinflation (% of unionised workforce)**




Source: Graham (1930)

As far as economic pain goes, this probably surpasses the Great Depression yet to come. But it only tells a part of the story: the nation's wealth, held largely in German government bonds was completely wiped out. We can only imagine the nationwide psychological devastation of a proud Germany already feeling victimised and humiliated in the aftermath of WW1. In his '*Ascent of Money*', Niall Ferguson quotes Elias Canetti's recounting of his hyperinflation experience as a young man in Frankfurt, *"It is a witches' sabbath of devaluation, where men and the units of their money have the strongest effects on each other. The one stands for the other, men feeling themselves as 'bad' as their money; and this becomes worse and worse. Together they are all at its mercy and all feel equally worthless"*. Such was the condition of Germany *before* the Great Depression had even begun.

Indeed, it is a tantalising counterfactual: would Germany have fallen under the Nazi spell which would ultimately lead the world to a second World War had she not borne the grave burdens of the Great Depression *already* exhausted, despairing and with ruptured social cohesion? We'll never know, of course, and anyway such events are never so simplistically mono-causal. Nevertheless, it is possible that German hyperinflation played a decisive role in the build-up to WW2 and therefore logical to conjecture that the central banker who presided over that hyperinflation is the most influential figure in history you've never heard of.

That central banker was a certain Rudolf von Havenstein. Born in 1857 into an aristocratic Prussian family, he trained as a lawyer and rose to become a county court judge before joining the Prussian Finance Ministry in 1890 and being appointed president of the Reichsbank in 1908. Steeped in the Wilhelmine tradition of devotion to his Kaiser and a passionate believer in

[1] See "Exchange, Prices and Production in Hyper-inflation: Germany 1920-1923" by Frank D. Graham (1930)

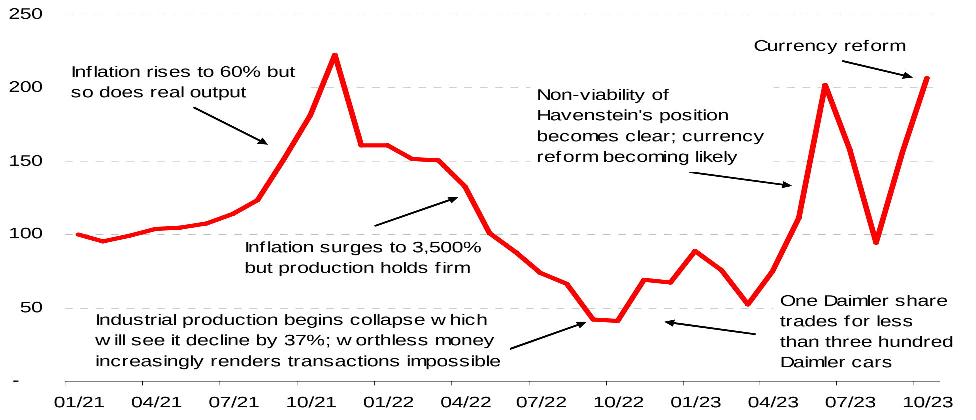
the virtue of public duty, he seems to have been liked by all – a true gentleman of the old school. Montagu Norman - then governor of the BoE - found him to be a *"quiet, modest, convincing, and a very attractive man."*

Just how could such a decent, hard-working, intelligent and well-intentioned public servant have given birth to the uncontrollable monster of hyperinflation? How could such a paragon of public integrity preside over the largest currency debasement in financial history, quite possibly sowing the seeds for the most destructive war in the history of civilization?

He first seems to have developed the habit of monetizing government debt during WW1. With a complacency arguably similar to today's policymakers in justifying their variously creative schemes for monetary and fiscal experimentation, the monetary expansion was justified as merely a stop-gap measure. The war was expected to be short and in any case the losers would be made to foot the bill. No one really anticipated the long and protracted conflict which occurred, or the financial burden it would impose. So by the end of the War - only 10% of which was financed by taxes - the money supply had ballooned and prices had quadrupled. Nevertheless, Von Havenstein was lauded as a public hero, decorated with honours and even nicknamed *der Geld Marschall*, which sounds a bit like the "the Maestro" but in fact translates as the 'Money General'.

Once embarked upon this path though, it became difficult to stop, especially since the early stages of inflation didn't seem too bad. Although inflation rose by 60% in 1921, real industrial production rose by 26% and unemployment stood at only 1% of the unionized workforce. The following chart shows that at one point during this period, real share prices rose by over 100%. But then the inflation intensified. In 1922 it reached 5,300% and on the eve of currency reform in late 1923, the annual rate was 16,579,999%. How did this happen?

**Real German share prices during the hyperinflation**

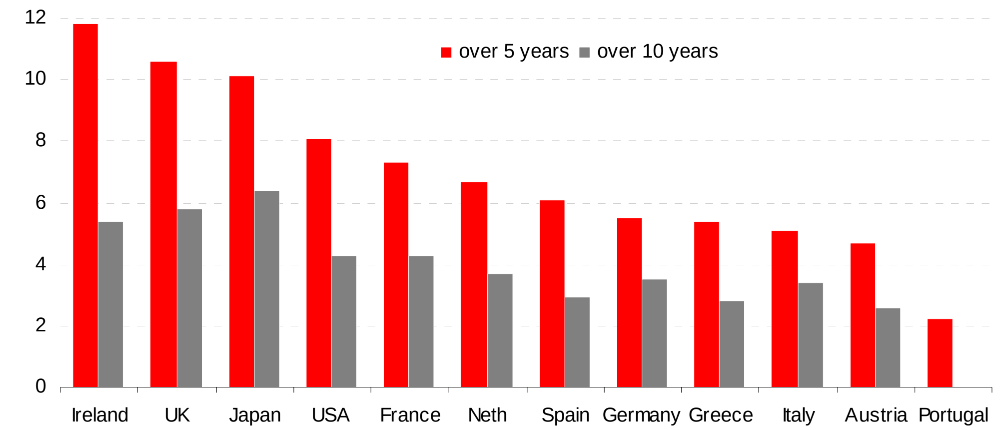



Source: Graham (1930), Bresciani-Turroni (1931), SG Cross Asset Research

To call the political climate of the time merely difficult would be a gross understatement. The country was on the brink of civil war: on the far right was the vast and humiliated ex-military which, having been forcibly demobilized by the victorious Allies, had become a seething and vengeful nationalist militia; on the far left were the anti-war workers and communists, the latter inspired by the 1917 Bolshevik Revolution and aiming to achieve the same end in Germany. Meanwhile, with revolution in the air and violent street battles between these polar political opposites playing out nightly, deep-felt resentment towards the foreign powers was fermented by the issue of war time reparations, whereby Germany was required to hand over 4-7% of GDP each year until full compensation for the war-time devastation had been paid.

It's worth noting that there has been much debate over the extent to which reparations were in fact a primary cause of the hyperinflation. Some have argued that the 4-7% budgetary burden was bearable and that the hyperinflation was actually a bluff gone wrong. The German authorities were actually trying to demonstrate just how desperate their situation was as a way to lower their reparation payments. I'm no expert, but I'm not completely convinced by this argument. In passing, it's worth noting that we're about to see how politically feasible such a budgetary burden is since the 4-7% of GDP range is roughly what Cecchetti et al at the BIS calculate is required to stabilise debt levels at 2007 levels (see chart below).

**Required Average primary balance to stabilise public debt to GDP at 2007 levels**




Source: Cecchetti, Mohanty, Zampolli (BIS conference paper, 2010)

I personally think the 4-7% reparations *was* the last straw for the German authorities facing capital flight in response to the tax measures they'd introduced to shore up the government's budget position (as we're seeing in Greece today), with the monetization habit now very firmly entrenched and fearful of what might happen should painful deflationist policies be pursued. As Liaquat Ahamed[2] writes in his masterful book on the Great Depression *"Were he to refuse to print the money necessary to finance the deficit, he risked causing a sharp rise in interest rates as the government scrambled to borrow from every source. The mass unemployment that would ensue, he believed, would bring on a domestic economic and political crisis, which in Germany's [then] fragile state might precipitate a real political convulsion."* Facing a dilemma orders of magnitude higher but nevertheless familiar to observers of today's situation, faced with the terrifying prospect of even more economic pain should he slam on the brakes, he opted to press his foot further on the accelerator.

Less well known though is that, as always, economic theory was on hand to furnish Von Havenstein with a 'scientific' justification for his playing for time. The consensus in Germany was actually that the cause of inflation was external because both the Reichsmark and import prices had moved disproportionately more than the rise in the money supply. Since the external value was caused by the balance of payments, which was largely caused by the reparations, it was foreigners and not budget deficits which caused the inflation. Indeed, Von Havenstein was so enamoured with this theory that he blocked attempts at monetary reform arguing that any measures would be pointless without settlement of the reparations issue. According to Ludvig von Mises, *"Herr Havenstein honestly believed that the continued issue of new notes had* ***nothing to do with the rise of commodity prices, wages and foreign***

[2] Liaquat Ahamed, "Lords of Finance" pp 74

***exchanges.*** *This rise he attributed to the machinations of speculators …"*[3] Speculators always get the blame don't they?

I don't want to overplay the parallels. In fact, there is one very clear difference between the hand Von Havenstein had to play then and those today's central bankers have to play now, namely the stability of today's political climate. Clearly this can change, but the class warfare, nationalistic xenophobia and revolutionary spirit poisoning the political atmosphere of 1920s Germany is at the very least dormant today, and certainly not meaningfully visible across the political landscape. **But let's not ignore the parallels either: as is the case for today's central bankers, Von Havenstein was faced with horrible fiscal problems; as is the case for today's central bankers, the distinction between fiscal and monetary policy had blurred; as is the case for today's central bankers, the political difficulty of deflating was daunting; and as is the case for today's QE-enthralled central bankers, apparently respectable economic theory reassured him that he was doing the right thing.**

One might think that the big difference is that today we have a greater expertise. Surely we understand what happens when deficits are financed with printed money, and that it is only backward and corrupt states that don't know any better, like Bolivia and Zimbabwe? But just a few years ago didn't we think that it was only backward and corrupt states that suffered banking crises too?

And anyway, how could Von Havenstein *not* have known that the continued and escalating printing of money to fund government deficits would cause inflation? The United States experience of unrestrained money printing during the Civil War had been well documented, as had the hyperinflation of revolutionary France in the late 18$^{th}$ century. Isn't it possible that, like today, he was overconfident in his ability to control his creation and in the economic theory which told him such control was possible? Certainly, in an article in the New York Times on the eve of the First World War, again from Liaquat Ahamed's book, there seems to have been evidence of the general optimism that there would be no "*unlimited issue of paper money and its steady depreciation … since monetary science is better understood at the present time than in those days.*"

The fact is we do understand the economics of inflation. Despite what economists everywhere say about being in 'uncharted territory' with QE, we know that if you keep monetizing deficits eventually you get inflation, and we know that once you're on that path it can be extremely difficult to get off it. But we knew that then. The real problem is that inflation is an inherently political variable and that concern over debt sustainability and unfunded welfare obligations leaves us more dependent on politicians than we have been in many decades. Frank Graham concluded his 1930 study of the Weimar hyperinflation with the following observation, which I think is as ominous as it is apt today:

"The mills of international finance grind slowly but their capacity is great. It is also flexible. The one condition is that the hoppers be not unduly loaded in the effort to get the whole grist from a single grinding. So much for the economics of the question. **What politics has in store is, however, an inscrutable mystery. It can only be said that such financial difficulties as may occur will almost certainly arise from political rather than from economic sources.**"

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[3] The Great German Inflation" Ludwig von Mises