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# Gold Rush vs. War

## Keynes on Reviving Animal Spirits in Times of Crisis

Michele Bee & Raphaël Fèvre\*

**Abstract:** This paper aims to exploit fully the heuristic virtues of Keynes' famous 'old bottles' story, deploying a multi-layered argument and drawing out its broadest implications. In essence, we show that through this story Keynes was making a very serious point about anti-crisis policies: the need for authorities to stimulate animal spirits by relying on people's natural impulse to action. Rather than taking the place of entrepreneurs and paying people to dig holes, Keynes seems to be arguing that public authorities should put entrepreneurs in a situation where they are so enthusiastic that they go into debt to dig holes, just like during a gold rush. At the same time, it is a question of restoring the banks' willingness to lend for these over-optimistic projects in a period of total depression. This article explores the conditions that make public intervention as effective as possible through the enthusiasm and individual initiative that can be generated by an artificial gold rush. Such intervention therefore can be as minimal as possible, without having to resort to the opposite authoritarian solution of war. Since the gold rush builds cities and wars destroy them, Keynes spent considerable energy convincing his contemporaries that liberal-democratic countries would have to take the former path if they wanted to avoid the latter.

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## 1. Introduction: Of Space Aliens and Earth Diggers

On 14 August 2011, the news channel CNN hosted a debate between Paul Krugman and Kenneth Rogoff on the best way to fix the depressed US economy. After a few rounds of observation, each economist quickly took up his preferred side in the stimulus-versus-austerity contention. As Rogoff grew skeptical that government spending was the appropriate solution to overcome the slump, Krugman risked the following story: “—If we discovered that, you know, space aliens were planning to attack and we needed a massive buildup to counter the space alien threat and really inflation and budget deficits took secondary place to that, this slump would be over in 18 months...—So, we need Orson Welles, is what you’re saying?” cut in Rogoff teasingly.<sup>1</sup>

Orson Welles was not a bad guess, yet Krugman had in mind another storyteller in the person of John Maynard Keynes. Faced with the mockery his alien story aroused, Krugman explained himself a few days later on his blog, stressing that he was merely outlining an “updated version of Keynes’s ‘coalmine’ thought experiment”; and hence that he—just like Keynes before him—was right (Krugman, 2011). Rogoff’s skepticism vis-à-vis Krugman’s story echoes the widely shared distrust of a policy proposal that mainstream economists generally attribute to Keynes. Following the Obama plan of 2009, Keynes’s narrative was given many names by renowned economists: a stimulus package taking “the form of bridges to nowhere” (Mankiw, 2009), “a joke that got a lot of attention” (Phelps, 2011, p. 2), or an “apparently foolish kind of intervention” (Barro, 2011, p. 31)—these punchlines accompanied the return of the old *Treasury View* of the 1930s to recent political prominence (Bridel, 2014; Skidelsky and Fraccaroli, 2017). Keynes’s argument was generally reduced to advocating that the government run even pointless but massive deficit spending, resulting if nothing else in paying people to dig holes in the ground one day and to fill them in again the next.

However, Keynes never envisaged such an intervention, which would in fact depress animal spirits by engaging workers in purposeless activities and by causing adverse expectations in entrepreneurs due to the fear of growing public deficits. In contrast to this simplistic and misleading interpretation, this article aims to exploit fully the heuristic virtues of Keynes's parable of the bottles by unfolding this multi-layered rationale and identifying its wider implications.

Through a detailed narrative, Keynes argued that public authorities should create a situation in which people would be so enthusiastic that they would, in a sense, be willing to pay and spend their energies to dig holes in the ground. Hence curing the slump is primarily about reviving animal spirits, in the same manner as during a gold rush. This is precisely what Keynes was trying to tell readers when, in *The General Theory* (henceforth *GT*), he suggested an uncommon expedient to reduce involuntary unemployment and pull the economy out of the slump:

If the Treasury were to fill old bottles with banknotes, bury them at suitable depths in disused coalmines which are then filled up to the surface with town rubbish, and leave it to private enterprise on well-tried principles of *laissez-faire* to dig the notes up again (the right to do so being obtained, of course, by tendering for leases of the note-bearing territory), there need be no more unemployment and, with the help of the repercussions, the real income of the community, and its capital wealth also, would probably become a good deal greater than it actually is. (CW, VII, p. 129)

Robert Skidelsky (2005, p. 528) emphasized that this was “one of the best-known—and extremist—passages in the *GT*” (see also Beranek and Kamerschen, 2016, p. 266), and yet according to Victoria Chick and Sheila Dow (2013, p. 15) it is also a “much misunderstood” one. By contrast to simplistic readings, they stressed that, for Keynes, useful investments (building houses) are better than wasteful ones—even though the latter are better than nothing

since they would equally reactivate aggregate demand through the multiplier effect. Keynes' lines should ultimately be read as "a piece of satire aimed at ridiculing the government view that everything should earn a full profit or not be done at all" (Chick and Dow 2013, 15; see also Skidelsky and Fraccaroli 2017, xx–xxi; Marcuzzo 2018, 21–22; 2019, 227).<sup>2</sup>

To acknowledge that Keynes wrote the bottles story out of a sense of amusement and with satirical intent does not imply, however, that we should overlook the specifics of his narrative. Hence, by closely examining the many details of Keynes's bottles story, we will show that through it he was urging the government to undertake public interventions designed to excite animal spirits and rely on people's natural urge to action as a means of getting out of the doldrums. In doing so, this article explores the psychological conditions for the most effective multiplier effect in terms of individual enthusiasm—involving not only the propensity to consume but also the inducement to invest—even when adverse expectations would fuel general pessimism.

In this light, the bottles story could read as follows. Once the bottles have been placed at the bottom of the mines and covered with rubbish, the Treasury launches a race for banknotes, like a treasure hunt or a lottery. New and old companies then set off and ask the banks for money to participate in the tenders for the leases of the territories, start building sites and thus buy the necessary equipment and hire the workers. The banks, as in the gold rush, do not flinch at the concrete prospect of finding the banknotes and therefore lend the money. By the time the companies find the bottles, they will have spent most of the money they find and perhaps even more, as in any gold rush. There is no risk of the money used for the recovery program not being spent, because it will already have been spent before it gets into the hands of businesses. In fact, it will probably be spent to a greater extent. Most importantly, businesses will have regained the desire to get into debt and banks will have to lend again for new, overoptimistic

projects. They will have emerged from the mental paralysis that had crippled them both, and the economy will be revived in full euphoria.

Hitherto, the literature has neglected the link between the bottles story and animal spirits. Certainly, it has been pointed out in general that for Keynes “public-works policy and stabilizing private investment could be connected,” for better or worse, through the medium of animal spirits (Backhouse and Bateman, 2011, p. 98; see also Dow and Dow, 2011, p. 9). After all, one of the key ingredients for this was to keep the level of confidence of private enterprise as high as possible (Bateman, 1996, p. 148; Marcuzzo, 2019, p. 214). To this end, the government is a pivotal actor that can “influence the day-to-day atmosphere, changing the state of spontaneous optimism and the attitude to uncertainty” (Dow and Dow, 2011, p. 16), hence clearly there was “a role for the state in stabilizing animal spirits, but exactly how to achieve this end remained to be worked out” (Backhouse and Bateman, 2011, p. 150).

While consistent with the literature just mentioned, we think there is another aspect of Keynes’ politics that should be highlighted. Stabilizing private investments and animal spirits is indeed what Keynes was aiming at in normal times. However, the parable of the bottles applies to the abnormal situation experienced in the direst period of the slump, when animal spirits no longer operate, and agents are plunged into utter apathy. In this context, the government would have nothing to stabilize *per se*. Instead, the way out of a desperate situation is to apply a psychological shock so strong that it can revitalise animal spirits, and thus make the paralysed walk again, nay run, towards everyday economic activities.

Accordingly, Krugman’s example of massive public spending to counter an alien invasion (and the slump) is consistent with both acknowledging the significance of a psychological shock and the precepts of the multiplier. However, it seems that with his story, Krugman reversed the sense of Keynes’s original message. Indeed, of the two forms of unproductive expenditure usually accepted by the authorities, according to Keynes (CW, XXI,

p. 293), namely gold mining and war, it was on the former rather than the latter that his “old bottles” narrative relied. While the multiplier effect might be theoretically equivalent in both cases, our contention is that Keynes felt that the enthusiasm of private enterprise could be generated without resorting to the authoritarian solution of war, which musters and exalts spirits against a public enemy. Since the gold rush builds cities and wars destroy them, Keynes spent considerable energy convincing his contemporaries that liberal-democratic countries should undertake the former solution if they wanted to avoid the latter.

## 2. Digging Holes Around Keynes

Keynes’s “old bottles” narrative has often been reduced to advocating that the government hire people to *dig holes in the ground and then fill them up again*—a catchphrase that Keynes never used. That this apocryphal quote appears in the texts of his numerous detractors is not very surprising. More strikingly, however, it is also found in Keynesian writings, such as those by Joan Robinson for instance. Hence, even if Robinson on several occasions provided a deep interpretation of Keynes’ old bottles parable and its political implications (as we will discuss later), she somehow contributed to the spread of a reductive version of it (see Robinson, 1942, p. 354, 1943, p. 172, 1949, p. 72, 1961, p. 160). From the 1940s onwards, it became quite common to associate the Cambridge School, or Keynesianism, with policies of digging holes and pyramid-building.<sup>3</sup>

Outside academia, William Beveridge helped to spread the misquote more widely and publicly. Indeed in *Full employment in a free society* (1944), Beveridge outlined “new rules of national finance”—the first and most absolute rule being that, in order to increase the national dividend, it is always “better to employ people on digging holes and filling them up again, than not to employ them at all” (Beveridge, 1944, p. 147). Beveridge repeated this central message in his text, explicitly linking it to Keynes and the *GT* (Beveridge, 1944, p. 209). Clearly,

Beveridge's argument was based on the multiplier effect, claiming that when the economy is not at full employment, any additional public spending would lead to a proportionally greater increase in national income than the amount initially spent.<sup>4</sup>

Now, it is well known that Keynes built his concept of multiplier by referring to Richard Kahn's 1931 article "The Relation of Home Investment to Unemployment". However, it is perhaps less recognized that it was Kahn who was responsible for providing the expression later associated to Keynes, suggesting in particular that "an international policy of digging holes and filling them up again would result in a net gain to the united treasuries of the world" (Kahn, 1931, p. 191). In his article, Kahn aimed "to combat the British Treasury's objections to loan-financed public works programs as a remedy for unemployment" (Skidelsky, 2005, p. 486), just as Keynes then did in a more satirical way in the *GT* (Chick and Dow, 2013, p. 15).<sup>5</sup>

Both Kahn and Keynes argued that the Treasury view, obsessed with a balanced budget, was not only wicked but also mistaken from a purely fiscal standpoint. Indeed, by means of new expenditures, the Treasury would increase its revenues (through the tax on additional profits) and lower its expenses (by saving the dole of the newly employed). This is why, Kahn emphasized, "perfectly useless 'public works' would still be profitable, even from a narrow budgetary point of view" (Kahn, 1931, p. 191). Keynes too was adamant on this point in the *GT*, for even purely wasteful expenditure or "public works even of doubtful utility may pay for themselves over and over again at a time of severe unemployment, if only from the diminished cost of relief expenditure" (CW, VII, p. 127).

In view of the point made above, it is not very surprising to see that criticism of Keynes' "old bottles" narrative repeatedly overlapped with criticism of the multiplier. And indeed, when the *GT* had just been published in 1936, one of the fiercest critics of the multiplier effect was Beveridge, then president of the London School of Economics (LSE). Though, as we saw, during WWII Beveridge gradually endorsed a form of Keynesianism, in the interwar period he

“developed his ideas independently and, in the case of full employment, in opposition to Keynes” (Marcuzzo, 2010, p. 193).<sup>6</sup> Among the different issues at stake in the correspondence between Keynes and Beveridge in summer 1936, the theory of the multiplier occupied a central place. During Hayek’s LSE seminar, Beveridge delivered a note entitled “Employment Theory and the Facts of Unemployment.” The first part of Beveridge’s paper contained a fierce criticism of Keynes’s *GT*, a book he found too abstract and not sufficiently grounded in economic facts. Beveridge directed his critical fire against the reasoning behind “the magic virtues of the Multiplier,” which he saw rather as “a *reductio ad absurdum*” hiding a plain inflationary process (Beveridge quoted in Thomas, 2006, p. 151).

In response, Keynes firmly stood by his multiplier theory, which was one of the pillars of the *GT*—as he told Beveridge, the multiplier occupied formally one long chapter, but in actual fact “about half the book is really about it” (CW, XIV, p. 57). What interests us here is the extra clarifications Keynes brought to the “old bottles” narrative:

You will not, of course, imagine that I am advocating digging holes in the ground. What I advocate is the application of labour to *productive* investment (...). But, although my passage about digging holes in the ground is written in a sense ironically, it means exactly what it says; namely, that, failing anything else, it would lead to an enrichment of the community as compared with doing nothing. (CW, XIV, p. 58, emphasis in original)

One of the main strengths of Keynes’s reasoning in the “old bottles” example comes from the apparent absurdity of his proposal and the paradoxical result it aims to demonstrate: any form of investment—even the most pointless one—will still be useful to society. The repercussions of the investment on the one hand, and its distinctive purpose on the other hand, are two separate issues, and the former is far more important than the latter in curing the slump.

Commentators and critics (like Beveridge before the war) have been eager to take Keynes's proposition literally and to point out how much more welcome productive investment would be instead. Yet as we saw, that is exactly what Keynes claimed, just as Kahn essentially discussed road construction in his 1931 article. Throughout the 1930s Keynes emphasized on many occasions—and indeed in the passage from the “old bottles” as well as in his response to Beveridge—how much more “sensible” it would be to increase the capital stock of a country by useful investments.

To this end, building new houses was by far Keynes's favored public scheme. On several occasions, he urged President Roosevelt to embrace a vast housing plan as the “happiest” of public spending for there is “no better way by which America can spend itself into prosperity” (CW, XXI, p. 337–38). Besides housing, Keynes was not short of examples for useful investments and often mentioned projects such as new roads and railways, railway and household electrification, water and gas grids, rural water supply, land drainage, port and dock works or any form of transport and communication expansion like Atlantic liners, Post Office and telephone services (see CW, IX, p. 123; XXI, p. 151, 183, 288).<sup>7</sup> As Keynes stressed in 1942 in anticipation of post-war reconstruction, every kind of “re-planning the environment of our daily life” was desirable (CW, XXVII, p. 270).

At this point, the “old bottles” puzzle seems to be solved: in essence, Keynes would use sarcasm and reasoning on the absurd about the (indeed positive) effects of totally wasteful expenditure to convince the Treasury to favor massive and useful public spending instead. And yet, just as Keynes insisted that it would indeed be much more desirable to make useful expenditure to get out of the crisis, he also highlighted important limitations of such interventions. Among the “political and practical difficulties in the way” (CW, VII, p. 129), he provided at least three main illustrations.<sup>8</sup>

First, the large-scale investments (such as building houses) required to overcome the slump are difficult and time-consuming to design, discuss, approve and implement on short notice. Hence, it is not just a question of monetary policy (lowering the rate of interest) being utterly ineffective in prompting large-scale investment, but more fundamentally, there is the difficulty of improvising useful loan expenditures that can be brought “to mature quickly on a large scale” (CW, XXI, p. 296, see also p. 293 and 338). Of course, after a reasonable time, there is no doubt that public authorities would find purposeful economic spending, but in the *very* short run, as the deflationary cycle unfolds, something—anything—should be done immediately and forcefully.

Second, useful investments that are not very profitable might be marginalized by political authorities. Indeed, the generally conservative minds of the Treasury or of private banks are not inclined to undertake partially useful investments, while they paradoxically accept some very singular forms of investment, that are wholly wasteful such as dole payments, wars, pyramid-building or gold-mining (CW, VII, p. 128–31).

Third, some plans and any random form of government spending could have adverse effects and, instead of overcoming the slump, could hamper recovery by further depressing already depressed businesses. Indeed, the delicate balance of human psychology cannot be manoeuvred as easily as an automatic device.

The bottom line is that both making useful investments by building houses and literally digging holes in the ground and filling them up—or, more realistically, giving money directly to the unemployed, as Josiah Wedgwood, fellow director of the Bank of England, suggested to Keynes (CW, XXVII, p. 347)—are expenditures that can overcome one or another of the limitations we have just outlined, but by no means all three at once. By contrast, we will show that, properly understood, Keynes’s bottles story does indeed overcome all three limitations. This is probably part of the reasons why he crafted such a complex narrative.

### 3. Taking Old Bottles at Face Value

Keynes's old bottles story has been seen as "simply a typical Keynesian rhetorical flourish" (Ferguson, 2013, p. 34), at worst as "one of the irresponsible little essays in satire and sarcasm that run through all his work" (Hazlitt, 1959, p. 152). No one took Keynes's proposal seriously and rather saw it as an example of a "surrealist event" (Cutler et al., 1986, p. 26). And yet, if one looks closely at the story in question, it appears that it is neither obscure nor vague, nor is it purely sarcastic or merely rhetorical. What strikes the reader is, on the contrary, the care with which Keynes conveys this rich and detailed story. Accordingly, it might be more appropriate to consider this a purposely complex narrative involving a multi-layered reading. However, insisting on specifics in the story of the bottles could be misleading. These details do not serve to outline a specific real proposal to be implemented by the government as it is. Keynes was reticent about giving such details, feeling that it was not his role (see, for example, CW, XXI, p. 182–83). His proper function was rather to articulate sound economic principles. Thus, the reason the bottles story is so sophisticated and plausible is not to suggest a specific policy to apply, but rather to outline the general economic lesson to be learned—as in a parable.

What is perhaps most obvious on first reading, is the rapid pace with which the sequence of actions envisaged in Keynes's scenario can be set in motion. All the elements to make money available to the actors are immediately at hand: the bottles in which the Treasury puts the notes would be "old", i.e., already produced and having served their initial purpose. Similarly, the coalmines are "disused," offering available space to store the filled bottles. It is noticeable that, in contrast to what commentators usually attributed to Keynes's story, no time and effort for "digging holes" was at this stage required at all. Lastly, the bottles are covered with "town rubbish" which can also be obtained directly, easily, and repeatedly. In this way, the Treasury's mission could be accomplished in a very short time, with very little operating costs (for the

Government), and with most of the money being spent (by private entrepreneurs) on the search and recovery of the bottled notes.

A second point to stress is that, contrary to what an immediate impression might suggest, the features envisaged in Keynes' story are quite plausible. Indeed, they are neither absolute fantasy, nor part of a purely logical and abstract game. Rather, these details are derived from a pragmatic, empirical analysis of the situation, both past and present. Practicality was also an issue for Kahn (1931, p. 191), who had closed his "digging holes" story with the following questioning: "We are probably still a little way off reality—but can it be so very far?" In a sense, Keynes formulated his proposal to bridge the gap with reality.

A good illustration of this claim is offered by Keynes's reference to "coalmines" in his narrative. In a previous and less developed version of it, dated Winter 1935, Keynes rather mentioned "old gold-mines" (in Rymes, 1989, p. 173). A little later in our article, we will stress how important this link with gold is for Keynes (see section 5), but for now let us ask ourselves why this apparently minor change is noteworthy. In the *GT*, Keynes replaced gold- with coalmines because he needed to make his argument as precise as possible to build a sound and convincing proposal.

In the interwar period, the era of opulence in coal production dating from the beginning of the century was seriously undermined. As Keynes incidentally pointed out in a radio discussion on unemployment in February 1930, to the public the coalmining sector was a standard example of "depressed industry" (CW, XX, p. 320)—and indeed a few months earlier (July 1929) reorganizing the coal industry had been assigned high priority by the Labour Government. Therefore, Keynes's choice of coalmines was not random but a careful decision based on the fact that, first, these places were indeed available; second and more importantly, they were an object of political interest and it would be fitting to make them economically useful again by transmuting sterile pits into ersatz gold seams.

Hence according to Keynes, “the *analogy* between this expedient [the old bottles] and the gold mines of the real world is *complete*” (CW, VII, p. 129–30, emphasis added). After all we know about Keynes’ criticism of the individual lust for gold and the international system of gold standard, why would Keynes rely so heavily on an artificial substitute of gold mining? In his 1935 lectures, Keynes even spoke of the old bottles being “artificial gold-mining” (in Rymes, 1989, p. 173). As Keynes stressed in the *GT*, gold-mining appeared “the most acceptable of all solutions” to spend money, which is paradoxical since gold-mining “not only adds nothing whatever to the real wealth of the world but involves the disutility of labour” (CW, VII, p. 129). Nonetheless, public opinion and the Treasury cultivated a “preference for *wholly* ‘wasteful’ forms of loan expenditure rather than for *partly* wasteful forms,” the latter being usually avoided because they are judged “on strict ‘business’ principles,” i.e., according to profitability in relation to the current rate of interest (CW, VII, p. 129).

A further virtue of gold emphasized by Keynes is that, unlike useful investments, an increase in supply does not diminish its marginal utility. Indeed, the value of houses, roads and railways depends on their utility, meaning that the greater the number built (saturation effect), the less likely they are to earn profit and the less inducement there is for new investment and production (see Ferguson, 2013, p. 34). As Keynes outlined with another example of wasteful expenditure, “two pyramids, two masses for the dead, are twice as good as one; but not so two railways from London to York” (CW, VII, p. 131). Robinson probably overlooked this argument when she pointed out a sort of confusion in Keynes: “he sometimes seemed to argue that unproductive investment is actually to be preferred to useful investment” (Robinson, 1981, p. 275). In fact, there is no confusion on Keynes’s part, as Cristina Marcuzzo argued, because “the decreasing marginal efficiency of investment sets a limit to the possibility of increasing the stock of wealth by means of ‘useful’ forms of loan expenditure” (2018, pp. 21–22, see also 2019, p. 227).

A third and last layer of Keynes's parable concerns the different roles assigned to the agents. Two main actors are explicitly mentioned: the Treasury on the one hand, and the multitude of private enterprises, on the other. As we saw above, the Treasury's role is fundamental and primary, both temporally and logically since it makes money available as an incentive for investments. However, the Treasury's action is also extremely brief and limited. That is why Keynes insisted on the fact that to complete the policies he had in mind, the Treasury would have to be "very well adjusted" (in Rymes, 1989, pp. 173–74). In a time of severe crisis when the private sector is paralyzed, it is the only institution capable of undertaking the necessary action. After having deposited the bottles, however, the Treasury should "leave it to private enterprise on well-tried principles of *laissez-faire* to dig the notes up again (the right to do so being obtained, of course, by tendering for leases of the note-bearing territory)" (CW, VII, p. 129). Following the initial public involvement, the "classical" functioning of the private market economy can again be relied upon. Then, private enterprise will do what it does best in trying to get richer.<sup>9</sup>

In sum, the bottles story, therefore, overcomes the three problems posed by anti-crisis policies: it is of immediate application, unlike most of the useful public works; it does not fear the challenge of profitability like partially useful investments; it does not risk depressing animal spirits, as can be the case with massive public spending policies, but rather excites them. This last point deserves closer consideration.

#### **4. Reviving Animal Spirits**

What Keynes's bottles story lets us see is a finely tuned—thus delicate—coordination between public and private, between the Treasury and the business world. Another example of this is when Keynes stressed that the old bottles should be buried at "suitable depths," meaning that money should be placed deep enough to require as much investment and tangible economic

activity as possible to actually get it, but not so deep as to discourage agents from getting involved.<sup>10</sup> So, the expression “suitable depths” raises the question of incentives, and more radically of the key psychological factors determining human action.

With the parable of the bottles, Keynes did not simply aim to champion the multiplier effect, but more fundamentally to reason about its conditions of effectiveness, not only in terms of propensity to consume but also—and above all—of inducement to invest. In the latter case, beyond the mechanistic interpretation often attributed to Keynes’s thinking, one should mobilise the compelling force driving the human psyche, namely animal spirits.<sup>11</sup> This natural inclination of mankind toward dynamism, or in Keynes’s words individuals’ “spontaneous urge to action rather than inaction” (CW, VII, p. 161), is a prerequisite for thriving economic activity:

If the animal spirits are dimmed and the spontaneous optimism falters, leaving us to depend on nothing but a mathematical expectation, enterprise will fade and die;—though fears of loss may have a basis no more reasonable than hopes of profit had before. (CW, VII, p. 162)

Now, it is well known that for Keynes, the economy, and hence economics “deals with motives, expectations, psychological uncertainties” (CW, XIV, p. 300)—and we merely claim that the multiplier and the “old bottles” are no exception. And yet, it is arguably difficult to see in the related passages an explicit reference to animal spirits, which have not yet been discussed at this point of the *GT*. Moreover, invoking animal spirits here seems particularly challenging because a dominant trend in the literature—as identified and criticized by Dow and Dow (2011, p. 16)—tends to present their impact on the functioning of the economy as purely deleterious. In other words, animal spirits are generally seen as a problem that can cause a crisis (and much less as a solution that can help overcome it, as we do emphasize here).

And indeed, animal spirits can push expectations to take extreme forms, shifting from “overoptimistic” to “overpessimistic” (in Rymes, 1989, p. 150). In the US, for instance, the “overoptimistic” expectations that fueled the speculative bubble for a couple of years prior to Black Tuesday 1929 turned “overpessimistic” following the crash and accompanied the early steps of the recession in 1930-32 (see Ibid.). Keynes used the prefix “over” to emphasize the exceptional cases where people’s decisions to act (or not to act) are dictated almost exclusively by their mood and hysteria rather than by reasonable motives based on reality and facts.

Hence, overoptimism (in the boom) and overpessimism (in the slump) are two sides of the same psychological coin: in both extreme cases, any form of calculation—even the most reasonable one—would be irrelevant to individuals’ decision-making process. When expectations are overoptimistic, i.e., when animal spirits are particularly strong, the business world is prepared to make large expenditures even if the return on investment may not be very favorable. Conversely, when expectations are overpessimistic, i.e., when animal spirits falter, the business world is somewhat paralyzed and refrains from any form of future development of economic activity, even that which can secure a positive return.

In July 1931, at the height of the crisis, Keynes outlined the “abnormal psychology” characteristic of the slump during his talk at the Harris Foundation round table (CW, XX, p. 536). In a normal time where conventions apply, individuals and financial institutions assume that the current state of affairs will continue indefinitely, unless there are specific reasons to expect a change (CW, VII, p. 152). Therefore, they are willing to “run reasonable risks”—this willingness being “the only possible basis for all progress” according to Keynes (CW, XX, p. 537). However, in an abnormal period characterized by overpessimism and high uncertainty about the future, actors would instead enter “a state of mind” in which they “just won’t run any risk at all,” even “sound” ones (CW, XX, p. 537). Keynes would confirm this analysis years later in the *GT*:

In abnormal times in particular, when the hypothesis of an indefinite continuance of the existing state of affairs is less plausible than usual even though there are no express grounds to anticipate a definite change, the market will be subject to waves of optimistic and pessimistic sentiment, which are unreasoning and yet in a sense legitimate where no solid basis exists for a reasonable calculation. (CW, VII, p. 154, see also 316)

Hence for Keynes, the main issue becomes: how to get out of the crisis and restore a mindset suited to the healthy functioning of the business world? To this end, to “get rid of the abnormal psychology,” he emphasized that “it may be quite right to use methods of comforting which would be *unsound in any ordinary conditions*” (CW, XX, p. 537, emphasis added). By invoking extraordinary measures, Keynes suggested that it might be appropriate to drive animal spirits toward overoptimism (a state of mind typical of abnormal situations) to counteract people’s overpessimistic state of mind. From this perspective, overpessimism could only be overcome by its logical opposite, namely overoptimism, in order to be able to restore, in a second and more usual phase, people’s natural optimism. The parable of the bottles contained in the *GT* provides a paradigmatic illustration of those *unsound methods of comforting* that come into play precisely in the transition from abnormal to normal situations.

Essentially, Keynes’ bottles would work as a psychological “device” helping to revive strong animal spirits. From that standpoint, the government—or rather the “organized community” as a whole—should act as a primer that “must start the ball rolling” (CW, XXI, p. 148). Public initiative is therefore instrumental in overcoming the slump by introducing “some bold measure which would break this vicious circle” (CW, XX, p. 323 see also IX, p. 134).

As Keynes emphatically stressed, austerity budgets in time of crisis must be avoided. Rather than restoring people’s confidence, the government’s reluctance to spend is likely to worsen the already highly depressed situation: “the more pessimistic the Chancellor’s policy,

the more likely it is that pessimistic anticipations will be realised and *vice versa*.” (CW, XXI, p. 184).<sup>12</sup> By the end of 1933, Keynes was still urging all the Treasuries of the world to engage promptly in massive schemes of investment financed by loans in order to increase the national output and raise employment—“nothing else counts in comparison with this” as he reminded President Roosevelt in an open letter in *The New York Times* (CW, XXI, p. 293).

And yet, massive public spending in itself may not be sufficient to induce an automatic return to a normal mindset. Indeed, the state of confidence of private enterprise is difficult to control and manoeuvre, reflecting “the uncontrollable and disobedient psychology of the business world” (CW, VII, p. 317). If it were enough to increase public spending to instill strong animal spirits and care-free optimism, then Keynes might have been content to advocate for paying people to dig holes and then filling them up, as Kahn suggested. Instead, the detailed story Keynes told is all about cheering up rather than depressing animal spirits (as well as avoiding the possible frustration of workers employed in meaningless activities).

Certainly, businesses may see that the economy starts to move again, but they may at the same time be frightened by government spending:

This means, unfortunately, not only that slumps and depressions are exaggerated in degree, but that economic prosperity is *excessively dependent on a political and social atmosphere* which is congenial to the average business man. If the *fear* of a Labour Government or a New Deal *depresses enterprise*, this need not be the result either of a reasonable calculation or of a plot with political intent;—it is the mere consequence of *upsetting the delicate balance of spontaneous optimism*. In *estimating the prospects of investment*, we must have regard, therefore, to the nerves and hysteria and even the digestions and reactions to the weather of those upon whose spontaneous activity it largely depends. (CW, VII, p. 162, emphasis added)

As a matter of fact, Keynes underlined that the state of long-term expectations is “often steady” and even when it is not, “compensating effects” can counteract negative outcomes—all of which is true in normal times, but not in the abnormal period of the slump. What therefore allows the multiplier mechanism to function fully under abnormal times is the alteration of propensities not simply by renewing a sense of confidence, which may be insufficient in such circumstances, but by exciting animal spirits, i.e. through a form of government intervention that incentive free enterprise sustained by private finance.

## **5. Artificial Gold Rush**

Getting out of the slump lies above all in making people change their current state of abnormal psychology for “a mood of expansion, of activity” in which they would be eager “to do things, to buy things, to make things” (CW, IX, p. 138). Accordingly, and in all circumstances, “activity and boldness and enterprise, both individually and nationally, must be the cure” for economic crises (CW, IX, p. 141). But how can animal spirits be vigorously revived and brought to a state of complete euphoria? How to incentivize the business world to get going and run risks once again, to borrow and lend as they do in normal times, when there is nothing constructive to aim for because of the state of widespread depression?

Well, for Keynes (CW, IX, p. 335), the solution resides essentially in what he called “the immaterial devices of the mind, in the working of the motives” of human action—and this is precisely what the story of the bottles is about. By placing the bottles at the bottom of coal mines covered with rubbish, the Treasury would somehow trigger a race for banknotes, a kind of treasure hunt, a lottery, or indeed a new gold rush. On closer consideration, in Keynes’s story entrepreneurs and investors must spend money first—both in capital and labor—and undertake a whole series of operations in the hope of mining the bottles.<sup>13</sup> So why would people with dimmed animal spirits and overpessimistic expectations engage in this scheme and run the risk

of digging up a sum inferior to what they committed to? The lure of profit is one thing, but the excitement for *playing a game they like* is clearly another—in abnormal periods you need both ingredients working together.

The profit itself should be significant to be attractive. But of course, Keynes did not directly give an amount of money. Rather, he drew on the aura of gold, in fact on the thrill of mining a gold nugget in the form of a bottle filled with banknotes. For centuries, gold played a unique role, appealing to people's "subconsciousness" since it can satisfy "strong instincts and serve as a symbol" (CW, IX, p. 161). The only thing to attract private enterprise that has lost all purpose is precisely the hope of obtaining that great substitute for all purposes that is wealth—in the figurative form of gold, in the literal form of banknotes.<sup>14</sup> Hence in Keynes's story, it is the overwhelming drive to accumulate gold that is responsible for entrepreneur's willingness to pay to dig holes.

The great advantage of gold is that it appeals not only to the borrowers (entrepreneurs) but also to the lenders (bankers). Indeed, Keynes stressed that gold-mining was "the only pretext for digging holes in the ground which has recommended itself to bankers as sound finance" (CW, VII, p. 130). Private and institutional lenders' confidence in gold-related activities has less to do with arithmetic, rationality, and real profit than with human nature and historical patterns. Indeed, on the one hand, "owing to the *gambling attractions* which it offers it is carried on without too close a regard to the ruling rate of interest" (CW, VII, p. 130, emphasis added). On the other hand, thanks to historical reasons gold has managed to "envelop itself in a garment of respectability" and even to "become part of the apparatus of conservatism" (CW, IX, p. 162).

According to Keynes, history taught us that gold was the underlying source of modern prosperity. The massive accumulation of capital in Western countries, as he emphasised in his 1928 essay "Economic Possibilities for Our Grandchildren," was prompted by "the treasure of

gold and silver which Spain brought from the New World into the Old”, and in the case of Britain by the “treasure which Drake stole from Spain in 1580” (CW, IX, p. 323–24, see also VI, Chap. 30). Closer to us, the great gold rushes of the nineteenth century, as in California or Australia, played a similar role. Both metaphorically and concretely, gold-mining is “of the greatest value and importance to civilization” as Keynes reaffirmed in the *GT* (CW, VII, p. 130). All things considered, and on a smaller scale, with his story of the bottles Keynes tried to find an image that could replicate for the twentieth century this initial impetus of prosperity.

Just as in Keynes’s old bottles story, there is a central element of chance in gold mining and gold rushes, which gives this type of economic initiative great appeal. Animal spirits thrive there and manifest themselves acutely in ensuring that “the thought of ultimate loss which often overtakes pioneers, as experience undoubtedly tells us and them, is put aside as a healthy man puts aside the expectation of death” (CW, VII, p. 162). Keynes’s use of the word “pioneers” here is particularly noteworthy: while it refers in general to innovate and daring persons, it is also a term that designates the early gold diggers. Of course, what drove people to the Wild West in search for gold had something to do with the human taste for “quick results” and the “peculiar zest in making money quickly” (CW, VII, p. 157). But at the same time, this zest also comes from the element of uncertainty inherent in gold-mining—in the story, from not knowing how much money you can get from the mined bottles.<sup>15</sup> In the *GT*, Keynes emphasised the strength of individuals’ natural penchant for gambling. As a result, most investments do not result from prudent calculation by entrepreneurs, but rather from their “temptation to take a chance” (CW, VII, p. 150); and gold rushes offer a paradigmatic example of this. Gold fever is what drives companies to start up again, beyond any rational calculation and despite the general situation of total depression.

By the time businesses dig out the filled bottles, they will probably have spent most of the money they finally uncovered, perhaps even more, as often happened in the gold rushes of

the mid-nineteenth century. Keynes was aware of this unhappy outcome: “it may be doubted whether on the average gold mining has paid—certainly in California and Australia it has not” (CW, XII, p. 753). However, the net losses of the gold mining industry were not without positive results on a more global scale. After all, and to take just one key example, the great California gold rush was responsible for new business ventures in manufacturing and services industries (that were indeed making substantial profits), for the rise of San Francisco as a modern city, and ultimately for the sustained growth of the US that has turned the country into an industrial power (see Nash, 1998).

By burying the old bottles, the Treasury is engaging in a great exercise in illusion. If economic agents are immobilized because they are afraid of losing their money (strong preference for liquidity), the only way to make them shake off their paralysis again is not to put more money in their hands, but to take it away from them by a sleight of hand (the government loan) and put it back in front of them as a possible new goal to be reached. The agents think it is new money, and in a way it is. The money they lent to the government is guaranteed for it result in “loan expenditure” including “the public investment financed by borrowing from individuals” (CW, VII, p. 128). But it is guaranteed precisely by the fact that they will reactivate the economy (allowing the government to use the increased tax revenues to service the debt contracted with them) by running and then spending—by borrowing more money or spending savings they did not want to spend—in order to reach the buried money. The buried money being nothing but what they themselves did not want to put into circulation in the first place.<sup>16</sup>

Having elaborated on the minute details of the bottles story as we have done might seem self-defeating. Indeed, how could anything other than a real gold rush satisfy all the stated conditions for a good anti-crisis policy? Does this mean that Keynes really expected the Treasury to fill up old bottles with money to overcome the slump? And if not, what concrete form should an *artificial* gold rush take? These are decisive questions for the government, but

not for those who, like Keynes, wanted to expound general economic principles. However, when he ventured to give some details, Keynes stressed that the policy of expansion should be as decentralized as possible, mostly coming from local authorities as well as private enterprise itself in the form of a “mass of miscellaneous projects, not of the first magnitude individually, upon the particular merits of each of which it is impossible for the layman to pass judgement” that include “the *multitudinous* projects of *enthusiasts*” (CW, XXI, p. 182–83, emphasis added).

If the banks cannot be convinced to support these enthusiastic projects, their function could be performed by an ad hoc “central fund” (Ibid.). That is, to finance projects whose viability cannot be easily estimated, given the circumstances. If the government succeeds by some expedient in restoring enthusiasm to both entrepreneurs and bankers, the game is over. There is nothing else left for the government to do and it does not have to take the place of either the entrepreneurs or the banks, which for Keynes would be the true purpose of government: to re-establish the proper functioning of the market economy.

One of the lessons to be learned from past gold rushes for today’s public spending concerned the leverage effect. In his 1934 article entitled “Can America Spend its Way into Recovery?”, Keynes insisted that aggregate demand could be raised faster if the state acted as a facilitator, inciting businesses to spend a far greater sum of money than they did in the first place:

The arguments for expenditure are very much strengthened if the government, by spending a small sum of money, *can induce* private individuals and corporations to *spend a much larger sum*. (CW, XXI, p. 337, emphasis added).

The kind of recovery program embodied by the old bottles story would have two strategic features. On the one hand, there is no risk that businesses will hoard the stimulus money, as they have spent it (for the most part) before it reaches their pockets. On the other hand, the total

amount spent is likely to be much higher than the Treasury's initial input, which increases the initial sum to be multiplied.

In addition, in normal times, an unexpected increase in investment can lead to a delayed increase in consumption output, which multiplies the initial sum invested, raising prices and reducing the propensity to consume. Consequently, the effects of the multiplier are reduced. This adjustment might even slow down or be reduced because of the "confused psychology which often prevails" in abnormal times, depressing instead of boosting animal spirits, leading to a lower effectiveness of the multiplier than in normal times (CW, VII, p. 120). If however, public intervention does not depress but excites the animal spirits, the adjustment can be much more substantial, making the multiplier work better.

As the recovery program unfolds, businesses are not the only actor engaged in spending more than before. Private individuals too become more spendthrift. Not only because they are receiving more income in total, but because their preference for liquidity declines resulting in a further increase in their propensity to consume. Keynes envisaged this situation in the *GT*, noting that in certain circumstances the public's preference for liquidity is "ready to respond to some new incentive in the news or in the policy of the authorities." (CW, VII, p. 204). Indeed, when the state of confidence is low, meaning that when forecasts about the future are uncertain just as they were during the first three years of the 1929 crash, then "it needs little to cause us to change our minds" (in Rymes, 1989, p. 150). The enthusiasm caused by public intervention can spread, as if by "contagion" (see Shiller, 2021), and can increase the community's propensity to consume, and thus the effects of the multiplier, as in a gold rush.<sup>17</sup>

The greater the effect of the multiplier, the less public intervention may be needed to emerge from the crisis. The less the government substitutes itself for entrepreneurs and bankers, making them enthusiastic, the sooner the normal functioning of the market economy is restored.

## 6. Avoiding Authoritarianism and War

By depicting on the image of an artificial gold rush, Keynes provided an alternative model to the most effective stimulus policy throughout history: wars. The question of how to emerge from the Great Depression and reduce the nationalistic tensions leading inexorably to war was one of the central issues debated in the interwar period. For Keynes, the matter was basically an either-or alternative: as he stressed in his preparatory lectures to the *GT*, there are “only two forms of investment [for increasing employment] which are historically respectable—war and gold-mining” (in Rymes, 1989, pp. 173–74, see also CW, XXI, p. 293).

The ill-fated business of warfare has proved itself time and again as a technique of recovery. And indeed, WWI caused a “boom so strong that it led to full employment” (CW, VII, p. 322). Therefore, according to Keynes (CW, XXI, p. 293), the vital question to ask was the following: can democratic societies grow mature enough, civilized enough to “engage in the interests of peace and prosperity the technique which hitherto has only been allowed to serve the purposes of war and destruction[?]” The determination and perseverance that governments showed in the issues of war, they should now apply with the same energy in the “tasks of peace,” instead of proving, as they had so far done, to be “timid, over-cautious, half-hearted” (CW, IX, p. 354–55). Thus, the bottles story is also an opportunity for us to question the profound political consequences of certain recovery techniques.

In June 1939, as the war seemed inevitable, Keynes asked: “In rearming this country [Britain], shall we, by accident so to speak, cure unemployment? This is a most exciting question for the workers—and also, I may add, for the economists” (CW, XXI, p. 528). This issue was “most exciting” because from this dreadful situation a great lesson could be learned. And once again, Keynes tried to convince his contemporaries that “if we can cure unemployment for the wasted purposes of armaments, we can cure it for the productive purposes of peace” (CW, XXI, p. 532). His efforts then were in vain.

Having died in April 1946, Keynes was prevented from fully grasping the economic consequences of WWII—but Joan Robinson did. She claimed that the success of Keynesianism and of full employment policies was merely “superficial” because it resulted in the arms race accompanying the cold war (Robinson, 1961, p. 164). For her, the period of sustained economic growth following WWII left a sense of semi-failure, at the very least. Paradoxically, it was the acceptance of full employment as an end in itself that led Western public opinion to meekly accept “the hypertrophy of the military-industrial complex” at the expense of socially meaningful public investments (Robinson, 1979, p. 28). In the US, in particular, Keynesian demand-side stimulus was then tantamount to increased military expenditure for the “most convenient thing for a government to spend on is armaments” (Robinson, 1972, p. 6).

With time and the fading of the Keynesian paradigm, the link between unemployment, public spending and wars took a back seat. However, with the explosion of the financial crash of 2007 Keynes’ teachings have once again appeared relevant to understanding and addressing current economic disorders (Skidelsky, 2010). Participating in this Keynesian revival, Krugman suggested the alien story that we outlined in the introduction to this article. He was arguing that the risk of an alien invasion may finally push everyone, and especially the authorities, to accept public spending, leading to a way out of the economic crisis. Indeed, wars have always caused “intense industrial activity” as Keynes emphasized (CW, XXI, p. 293). Thus, Krugman implicitly relied not only on the multiplier effect, but also on the idea that the imminence of war makes public spending welcome for the Treasury.

However, one can draw from Krugman’s war story another—neglected—psychological aspect that affects private enterprise more directly. In times of war, people are willing to bear much greater economic burdens than they would be able to accept in normal times. Even if public spending were deemed by the Treasury a viable option during an economic crisis, at least by Keynesian-inspired governments, it may not be sufficient to produce the kind of

physiological shock necessary to bring economic agents out of paralysis. Wartime propaganda can push everyone to the collective effort of private under-consumption, hence sustaining the enormous public consumption of the industrial war machine (see for instance CW, VII, p. 117).<sup>18</sup>

From this standpoint, wars and gold rushes lead to the same result, namely the increase in aggregate demand. However, they rely on opposite psychological dynamics with diverse socio-political outcomes. On the one hand, wars, playing on fear and the spirit of patriotic cohesion, substitute private consumption with state consumption to support the military effort. On the other hand, the (artificial) gold rush, playing on effervescence and people's taste for gambling, envisages the leverage of a small public expenditure generating a much larger private expenditure, and making the individual propensity to consume rise significantly. In both cases, unemployment can be defeated, but wars destroy cities while gold rushes bring them to life.

In the interwar period, Keynes made stimulating remarks on the economic consequences of mass psychology.<sup>19</sup> Indeed, as the Western world embarked on “a variety of politico-economic experiments” (CW, XXI, p. 239), he could not help but point out some of the patent advantages that these systems could rely on to manage their economies. Soviet Russia, Fascist Italy and National-Socialist Germany were able to conduct public policies free from the precepts of orthodox finance. Military spending was a central economic lever to them, but it was not the only one. Indeed, for Keynes, modern totalitarian states had brought back from heroic ages uncalculated expenditures in the form of vast public ceremonies and celebrations, as well as the building of mighty civic monuments. Through edifices and ephemeral ceremonies to the glory of their leaders, countries like Russia, Italy and Germany fostered social cohesion, which was according to Keynes

... a source of strength ... and a genuine gain to them, just as the lack of it is a source of weakness to the democratic societies ... In so far as it is an aspect—and it partly is—

of an aggressive racial or national spirit, it is dangerous. Yet it may prove in some measure an alternative means of satisfying the human craving for solidarity. (CW, XXVIII, p. 347)

Keynes mockingly noted that most of these public ceremonies and celebrations were “often an occasion for bombastic oratory, and sometimes extremely silly” (Ibid.). They did, however, rely on ancient and powerful psychological devices that democratic governments would be wrong to abandon, but should instead use to serve opposing purposes.

Throughout the 1930s, British politics experienced strong anti-liberal pressures, and Keynes “felt he was racing against time. Hitler had become German Chancellor, Mosley had started the British Union of Fascists, communism had captured student politics at Cambridge” (Skidelsky, 2005, p. 511). The challenge for Keynes was to convince democratic opinion to apply an efficient technique for recovery while avoiding the solutions of war and authoritarianism. To this end, his campaign relied on solutions “retaining as much private judgement and initiative and enterprise as possible” (CW, XXI, p. 240), and sure, state intervention where needed, as he underlined in his 1933 article on “National Self-Sufficiency.” Indeed, according to Keynes, the community should “promote social and economic justice, whilst respecting and protecting the individual—his freedom of choice, his faith, his mind and its expression, his enterprise and his property” (CW, XXI, p. 500). In this sense, he also argued that we should move away from the old principles of laissez-faire of the nineteenth century and enter what he called the “era of liberal socialism” (Ibid.; see also Fuller, 2019).<sup>20</sup> Himself an advocate of individual freedom (Backhouse and Bateman, 2009; Goodwin, 2019), Keynes had thus no illusion about the shortcomings of liberal-capitalist societies (Backhouse and Bateman, 2011). But he was also concerned about the dangers posed by alternative—totalitarian—systems. Indeed, he recognized the opportunities for individuals to earn money and accumulate wealth as the way in which “dangerous human proclivities can be canalised into comparatively

harmless channels”—and if not, they “may find their outlet in cruelty, the reckless pursuit of personal power and authority, and other forms of self-aggrandisement” (CW, VII, p. 374). Of all this, Keynes wanted no part, neither for today’s society nor for tomorrow’s.

## **7. Conclusion: Message in the Bottles**

Just as it is possible to reduce the message of Keynes’s *GT* to the theoretical mechanism of the IS-LM model, it is also possible to read the old bottles as a mere aesthetic story in favor of massive public spending of all kinds.<sup>21</sup> In contrast, this article highlights another possibility, which is to take Keynes’s parable seriously. As we have shown, none of the elements are there by chance and each of them has been carefully chosen by Keynes to highlight theoretical arguments that are prevalent elsewhere in his work.

In the literature, it has been increasingly—and rightly—emphasized that the central policy message of the *GT* was to stabilize the confidence of economic agents (Bateman, 1996, p. 148; Backhouse and Bateman, 2011, p. 98; Dow and Dow, 2011, p. 9; Marcuzzo, 2019, p. 214). Since the government would have more knowledge—however partial—than individuals, cleaver public intervention should tend to “transform mere opinions into reasonableness” by increasing the knowledge of agents, so that they would be “less prone to variability and instability” (Carabelli, 2021, p. 21). However, this applies essentially in normal conditions, to prevent animal spirits from fading and plunging the economy into an abnormal situation. But when the economy is in deep depression, it may no longer be a matter of stabilizing animal spirits. Rather, and to take the old bottles story to its logical conclusion, it may be more useful to *destabilize* them, to apply a psychological shock so strong that it can revitalise animal spirits and break people out of the paralysis in which they are trapped—for instance, by relying on the traditional and conventional meaning that people attach to gold.

Indeed, as has been outlined in the literature, in situations of radical uncertainty it may be reasonable for agents to follow old, conventional beliefs as well as whims and caprices (see Carabelli and Cedrini, 2013, pp. 1095-97), and thus also for the government to rely on them as well, unlike in normal times, as the bottles story shows. In such abnormal circumstances, it is no longer just a question of instilling confidence through official announcements or public spending, which should rationally lead one to expect an eventual economic recovery. Instead, it is a question of creating a new euphoria, of moving from a situation in which uncertainty paralyses private enterprise to one in which uncertainty itself excites it—as in gambling. If economic agents no longer want to lend or borrow money because of uncertainty, it is all about getting them to want to lend and borrow again, in the absence of rational calculation, because of uncertainty. If uncertainty is the cause of the crisis, uncertainty itself is also the best way out.

Keynes's economic policy, embodied in the bottles story, is ultimately a politics of passions. The excessive love of gold, money and liquidity in a time of uncertainty is a central reason for the slump. In the long run, Keynes believed that the passions animating individuals might change, which is why he was keen to separate the higher values (such as beauty and friendship) from the love of money as a means, which he further separated from the love of money as an end (see Goodwin, 2006; Carabelli and Cedrini, 2011; Marcuzzo, 2017). In the short run of a crisis, however, he considered it necessary to rely on these same—albeit unpleasant (CW, IX, p. 331)—greedy passions to get out of the slump. Indeed, in the *GT*, Keynes argued that economic policy was not about “transmuting human nature” but more simply of “managing it” (CW, VII, p. 374). Hence, one must create the conditions to restore animal spirits, making people sufficiently optimistic again. Therefore, the role of government is not to act in the place of animal spirits, but instead to give them a new horizon so that they become active again. It is to tickle the innate impetus for action that drives economic agents to act even in the absence of a specific purpose, presenting them with the great all-purpose

substitute, money. When all purposes vanish due to the general depression, the way forward may lie in stimulating people's natural purposeless purposiveness in order to make the great wheel of commerce go round again (see CW, IX, p. 134).

In doing so, Keynes stressed the condition for the most effective public intervention through the multiplier effect. Accordingly, the initial impulse provided by the government could be relatively reduced and confined. In contrast, the war economy requires large and constant efforts by the government and the community. The government's huge investment in military expenditure requires a consequent under-consumption by the community, and thus a lower propensity to consume, which greatly reduces the effect of the multiplier (see CW, VII, p. 117-18). Therefore, public spending does not generate new investment in the consumer-goods industry, and any reduction in it means a reduction in investment and a consequent rise in unemployment. The centralised war economy, although securing full employment, has difficulty stopping and giving way to a functioning market economy again.

We are not suggesting that Keynes's idea is tantamount to a minimal state argument, but rather that the choice in the stimulus technique employed by the state is far from neutral for the individual and society. It can either be *generative* as in a gold rush, relying on the natural dynamism of human beings, and therefore as minimal as possible because it is sufficiently amplified by the response to this investment in terms of an increase in private investment and the community's propensity to consume. Or the state's stimulus technique can be *destructive* as in the case of war, relying on the natural fear of the enemy, substituting itself for economic agents and reducing the community's capacity to consume. In the final analysis, taking Keynes' narrative at his word means charting a way out of the tragic outcome of authoritarianism and war. If wars make it possible to get out of an economic crisis, this is not simply due to the social acceptance of public spending, but to the collective psychological tension that enables extraordinary efforts. Avoiding war as a solution to the economic crisis means being able to

produce this psychological tension in peacetime, as happens in gold rushes. With his parable of the bottles, Keynes promotes the idea of a new gold rush, whatever its contemporary form, as an alternative to new wars.

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## Notes

<sup>1</sup> The full transcript of the discussion led by Fareed Zakaria on the show *Global Public Square* is available on [CNN website](#).

<sup>2</sup> On Keynes's relation to British politics in general, to the Treasury in particular, see George C. Peden (2004, 2006).

<sup>3</sup> These expressions were used by Keynesian economists like Ralph G. Hawtrey (1937, p. 460), Roy Harrod (1948, p. 162) Nicky Kaldor (1951, p. 845). to discuss public expenditure, and were stressed by others as a hallmark of Keynesianism (Lerner, 1942, p. 616; Williams, 1944, p. 49; Sweezy, 1947, p. 231).

<sup>4</sup> The collective volume edited by Louis-Philippe Rochon and Claude Gnos (2000) offers various analyses of the Keynesian multiplier (see also Thomas, 2006). On the origins of and the debates around the concept of multiplier, see Robert Dimand (2019).

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<sup>5</sup> The close collaboration between Keynes and Kahn, and indeed the fact that the latter played an enduring and significant role in the shaping of the *GT*, has been well documented in the literature (Chick, 2006; Harcourt, 1994; Marcuzzo, 2002, 2013).

<sup>6</sup> Overall, Keynes's and Beveridge's views on economic science and social theory were alien to one another (Backhouse and Bateman, 2012; Marcuzzo, 2010). On the Keynes-Beveridge relation in the decisive years 1942-1944, see Skidelsky (2005, Chap. 38).

<sup>7</sup> Large investments in each of these industries would stimulate employment in a number of other related industries. Indeed, Lloyd George's public works in road construction would not just "put the great mass of the unemployed on outdoor work" because "no fewer than forty-seven different industries play their part in the building of roads" (CW, IX, p. 107).

<sup>8</sup> James Tobin (1997, p. 15) emphasized the need for useful projects to be "practically feasible and politically acceptable," but without specifying what Keynes meant by this.

<sup>9</sup> Even the legal framework remains unchanged, with public authorities granting concessions for mining sites, as is customary. This device can also be seen as Keynes's way of reassuring the reader about the fact that no radical rejection of the capitalist society per se was required. And indeed, Keynes has been portrayed as a thinker suggesting revolutionary changes within the market society to avoid actual revolutions (Backhouse and Bateman, 2011; Mann, 2017).

<sup>10</sup> Remarkably, Keynes used this expression also in describing real gold-mining in the context of the bottles parable: (see CW, VII, p. 130).

<sup>11</sup> Animal spirits are parts of people's "arational subconscious" (Dow and Dow, 2011, p. 18) and can be seen as "underlying psychological/emotional systems of decision making that provided support to the conscious, logical side of entrepreneurs' mental processes" (Barnett, 2017, p. 394). On Keynes's redefinition of the expression "animal spirits" and its longer history (Koppl, 1991; Moggridge, 1992).

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<sup>12</sup> Nonetheless, Keynes was also paying attention to a possible “psychological crowding out,” meaning that running public deficits might provoke adverse expectations by the business world (Skidelsky and Fraccaroli, 2017, p. xxi).

<sup>13</sup> After all, Keynes’s “old bottles” narrative can be seen as an answer to a limitation evoked by Kahn while discussing his digging holes policy. Indeed, for Kahn (1931, p. 191) the effect of public spending would be stronger if “business men could be persuaded to be sufficiently spendthrift with the additions to their profits which such a policy would secure for them”; but as he immediately pointed out “such a hope is almost certainly a vain one.” Given Kahn’s concern that the induced profits would not be spent *ex post*, Keynes offered a story where private expenditure is undertaken *ex ante*. Therefore, the recovery driven by the multiplier effect depends as much on this initial public impulse as on the private agents’ response to it.

<sup>14</sup> In his *Essays in Persuasion*, Keynes described businessman as those who cannot focus their “abundant libido” in science or art and “fall back on the grand substitute motive, the perfect *ersatz*, the anodyne for those who, in fact, want nothing at all—money” (CW, IX, p. 320). Keynes’ views on the love of money are no stranger to the work of Freud (see also Dostaler and Maris, 2000).

<sup>15</sup> Himself an investor, Keynes was active in the mineral sector and notably held shares in American and South African goldmines (see Fantacci et al., 2010, p. 400; Cristiano and Marcuzzo, 2018, p. 271).

<sup>16</sup> The argument remains true even in the alternative assumption, that the money buried by the Treasury is newly issued (by the central bank). Indeed, in this case, the reactivation of the economy is the guarantee that the money issuance is not inflationary and that the value of the new money is preserved in terms of its purchasing power.

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<sup>17</sup> During the gold rushes, most gold seekers did not get rich: their earnings were generally small or even nil. However, those engaged in collateral businesses that developed around gold activities usually experienced large and significant gains (see Clay and Jones, 2008). In the example of Keynes' bottles, this would mean revitalizing the depressed cities that had sprung up around the exhausted coal mines, fueling new collateral trade, as was the case with the emergence of cities like San Francisco during the gold rush, or around the old coal mines themselves.

<sup>18</sup> One can go even further in the analogy, stating, like Hugh Rockoff (2012, p. 191), that war can be like a gold rush. Rockoff speaks of the "gold rush of 1942," linking the American economic boom during WWII to the gold rush that started in California in 1849. The production of munitions to be sold to the government for the war effort was a real gold mine for anyone who wanted to convert their business to such production: "people picked up and moved to war production centers during the war because there was money to be made—in this respect the war boom was like a nineteenth-century gold rush" (Rockoff, 2012, p. 193).

<sup>19</sup> From that viewpoint, George A. Akerlof and Robert J. Shiller (2010) aim to go beyond Keynes by combining behavioral economics with mathematical epidemiology. They re-interpreted animal spirits in the form of popular narratives impacting individuals' economic decisions and spreading among agents like a disease.

<sup>20</sup> Keynes' complex political philosophy has been the subject of much controversy over the years: he is sometimes described as a "lifelong liberal" in the traditional sense of the term (Skidelsky, 2010, p. 157) or a proponent of liberal socialism (Crotty, 2019), a liberal savior of capitalism (Mann, 2017) or a "capitalist revolutionary" (Backhouse and Bateman, 2011), a "bourgeois Marxist" (Katiforis, 2004) or a "non-Marxist socialist" (Fuller, 2019). While it is

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desirable and useful to situate Keynes's political views more clearly, they evolved continuously over time and often defy narrow, standard categorization (see Konzelmann et al., 2021).

<sup>21</sup> These two elements have been linked, with the bottles story being used to illustrate the graphic representation of the Keynesian Cross (see Temin and Vines, 2014, pp. 49–50).