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Lawrence Summers Deserves a Nobel Prize for Reviving the Theory of Secular Stagnation

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LINK TO ABSTRACT

During the late 1930s, Alvin Hansen suggested that the U.S. economy might have to brace itself for a prolonged period of economic decline or "secular stagnation." His analysis was based on several factors. First, the significant decline in fertility rates, which had reached a historic low of roughly two children per women, on average, in the aftermath of the Great Depression. This demographic trend combined with the end of liberal migration policies would therefore lead to a severe decline in population growth rates. Second, Hansen suggested that the closing down of the frontier in the West of the country has led to a dearth of investment opportunities that would also put a negative drag on long-run economic growth in the years to come (Hansen 1939).

However, some economists like George Terborgh were already dismissive of Hansen's theory at the time. In *The Bogey of Economic Maturity*, Terborgh (1945) discusses that the slowdown of population growth and the closing of the geographical frontier had already taken place in the late 19th century without causing a depression. Moreover, Terborgh was also skeptical of the idea that innovations are predominantly capital-saving. Ultimately, Hansen's theory turned out to be catastrophically wrong. The U.S. economy pulled itself out of the recession, mainly thanks to military spending that was exploding as the country fought World War II. The postwar economic boom coincided with a significant

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uptick in birth rates, reaching 3.5 in the 1950s. Rapid technological progress, advances in telecommunications and transportation technologies, the construction of the interstate highway system, and many other innovations all contributed to a postwar economic expansion driven by a productivity boom (Gordon 2017).

While Hansen's prediction did not pan out in the late 1930s, perhaps he was 70 years ahead of his time. In late 2013, Lawrence Summers revived the theory of secular stagnation during a speech at the IMF (Summers 2015a; b). Summers observed that a number of macroeconomic factors have pulled down real interest rates across the globe. These forces include declining population growth and rapidly aging societies in advanced economies, declining productivity growth, rising inequality, and increasing market concentration. The downward trend in real interest rates would pose a challenge for monetary policymakers because central banks would be constrained more often by the zero lower bound (ZLB) on interest rates (ibid.). Summers later went on to argue that "Secular Stagnation—a prolonged period in which satisfactory growth can only be achieved by unsustainable financial conditions—may be the defining macro-economic challenge of our times" (Summers 2017). While Summers's theory of secular stagnation essentially refers to a nominal problem, a prolonged period of insufficient aggregate demand, the supply-side factors mentioned above contribute to the phenomenon by making it more difficult for central banks to maintain an adequate level of nominal GDP growth in the long run (Summers 2014).

In this essay, I argue that Summers deserves to win the Nobel Prize in economics, both for his theoretical and empirical contributions to the secular stagnation theory and for his contributions to New Keynesian economics in general. Following his consequential speech at the IMF, a large macroeconomic literature in New Keynesian economics has emerged on the secular stagnation debate. Many contributions have been made to incorpoate the theory into modern macroeconomic models, such as overlapping generations (OLG) models (e.g., Eggertson et al. 2017). Furthermore, a large number of empirical papers have confirmed some of the key components of the secular stagnation theory, such as the long-term decline in global real interest rates (Haldane 2015; Lu and Teulings 2016; Probst 2019a), increasing monopolization and market power within the economy (Barkai 2016; Autor et al. 2017), rising inequality (Piketty 2014), and declining productivty growth (Clark 2016; Gordon 2017). Summers therefore deserves the Prize not only on the grounds of his particular contributions, but also by kicking off the most consequential macroeconomic debate and research agenda of our times.

Relevance

Lawrence Summers's initial speech at the IMF turned out to be both extremely influential and controversial. Some prominent economists like Paul Krugman (2014) and Brad DeLong (2015) recognized right away that Summers was onto something by suggesting that the global economy might have fallen into a permanent demand-side induced macroeconomic slump. Other economists, however, were more dismissive of the idea. Kenneth Rogoff, for example, has suggested on numerous occasions that secular stagnation frames the issue incorrectly. According to him, it would be more accurate to speak of a debt super-cycle (Rogoff 2015; 2016). Sluggish economic growth can be attributed to a period of substantial deleveraging as both the public sector and especially the private sector are trying to repair their balance sheets in the aftermath of the crisis. However, the economy should recover once the deleveraging cycle is complete and the headwinds from paying off the debts subside (Rogoff 2016). Ricardo Caballero, on the other hand, has suggested that the global economy suffers from a safe asset shortage and that it is this safety trap, which induces a semi-permanent macroeconomic slump based on insuffficient aggregate demand (Caballero and Farhi 2014; 2017; Caballero et al. 2016).

These alternative propositions might well have some truth to them, but it seems to me that Summers's secular stagnation theory is more inclusive because it incorporates a number of other macroeconomic factors that are missing both from Rogoff's debt super-cycle theory and Caballero's safe asset shortage. Moreover, some six years after Summers has first exposited this new macroeconomic paradigm, global macroeconomic trends have supported the secular stagnation view (Probst 2019b). Even a full decade after the outbreak of the financial crisis in 2008, real interest rates remain in deeply negative territory across most advanced economies (Rachel and Smith 2015). Central banks in some countries, including the Eurozone, Japan, Sweden, and Switzerland, even have imposed negative nominal interest rates. Moreover, any interest rate 'normalization' has remained elusive. Both the ECB and the Swedish Riksbank have attempted to hike interest rates a few years ago, only to find out that it comes at a huge macroeconomic cost. Consequently, both central banks have had to reverse course in order to avoid a deep economic downturn and therefore found themselves constrained again by the effective lower bound (ELB) on interest rates. Even in the U.S. where the Fed has managed to lift its short-term interest rate to about 2.25 percent as of 2019, an inflation rate of just under two percent implies that the real interest rate is barely positive. Moreover, long-term interest rates have recently declined yet again,

leading to an inversion of the yield curve (Probst 2019d), which historically has been a relatively good indicator of an upcoming economic recession (Estrella and Trubin 2006). As of summer 2019, financial markets appear to be pricing a move by the Fed toward cutting rather than hiking the federal funds rate.

The severe output gaps that have emerged as a result of the global economic downturn one decade ago now seem to have finally closed, but this has come about mostly by substantial downward revisions in the estimate of long-run potential output (Fatás and Summers 2016). Even the U.S. economy, which has fared relatively well compared to most of the Eurozone, had a real GDP in 2015 that is some 10 percent below the CBO's estimate of the economy's potential from 10 years earlier (Fernald 2015). Downward revisions in potential have been even more severe in some Eurozone member states, mostly Southern European countries like Greece, Spain, and Portugal that were strongly affected by the Eurozone crisis (Fatás and Summers 2016; Heimberger and Kapeller 2017).

To top things off, productivity growth has also been abysmal in the aftermath of the financial crisis, and this seems to be a global phenomenon. While the period after the Great Depression was actually one of rapid technological progress and very high labor productivity growth (Gordon 2017), we certainly do not seem to be as lucky this time around. Growth estimates for the UK economy show that the decade 2007–2017 has been the worst 10-year period since the early 1800s in terms of labor productivity growth (Lewis 2018). Other countries also have experienced similar declines in productivity numbers, suggesting that Tyler Cowen's and Robert Gordon's stories about technological pessimism, at least for the time being, might be vindicated (Clark 2016; Cowen 2011; 2016; Gordon 2017). Besides reducing the economy's long-run potential, the decline in productivity growth also puts additional downward pressure on real interest rates and therefore makes it more difficult for central banks to stay clear of the ELB. Supply-side stagnation can therefore indirectly lead to nominal demand insufficiency if central banks must increasingly rely on alternative monetary policies, such as asset purchase programs and forward guidance. Although many studies have shown that these policies have been somewhat effective in increasing aggregate demand (Gagnon 2016), they do rely on channels other than conventional interest rate changes, such as the portfolio balance channel (Thornton 2012), wealth effects, changes in the risk premium (Summers 2016a), and affecting expectations using forward guidance (Svensson 2014). Unless central banks implement the proverbial helicopter drop of money (Friedman 1969), there might be some limit to how effective these aforementioned policies truly are in restoring aggregate demand, thus potentially giving fiscal policy a bigger role in restoring full employment (Summers 2015b). The need to turn to unconventional means might be acute during times when the gap between the nominal rate of interest on government

debt and nominal GDP growth is negative, as it has been the case for many advanced economies over the last decade (Jordà et al. 2017b). Olivier Blanchard (2019) therefore suggests that the burden of public debt will therefore be substantially lower than what is commonly acknowledged by mainstream macroeconomic analysis. Ironically, running larger fiscal deficits and higher public debt, in general, might therefore be the more prudent courses of action for advanced economies that suffer from secular stagnation (Summers 2015b).

Theoretical contributions

Before secular stagnation was ever an issue, some macroeconomists had already suggested that an economy can encounter a prolonged period of insufficient aggregate demand and excess unemployment (Blanchard and Summers 1986). Such thinking dates back at least to John Maynard Keynes (1936), whose *General Theory* held that economies are not always self-equilibrating and that prolonged downturns are to be expected, especially when interest rates are approaching zero. The modern version of the liquidity trap was exposited by Krugman's analysis of the Japanese experience (Krugman 1998). Krugman showed in a simple New Keynesian model that it was possible for central banks to get stuck at the ZLB. Any conventional open-market operation would have no effect on the economy because the central bank simply swaps one zero-interest bearing asset for another (base money for government bonds). In this particular case, monetary policy becomes ineffective; large increases in base money yield no inflationary impulse, and even increases in broader monetary aggregates might not affect nominal GDP. Any central bank that would find itself in this particular situation would have to "credibly promise to be irresponsible," in the words of Krugman (ibid.). Only if the expansion of the monetary base were perceived to be permanent instead of temporary would monetary policymakers be able to escape the liquidity trap.

While the Japanese case was for a long time dismissed as special, or the fault of Japanese policymakers (Bernanke 2000), Krugman warned early on that Western economies might eventually face a similar challenge (Krugman 2000). Soon his views would turn out to be vindicated on several grounds. First, all major advanced economies would be constrained by the ZLB in the aftermath of 2008. Second, large increases in base money turned out to be quite inconsequential in terms of the stimulative impulse generated. However, even in Krugman's analysis the liquidity trap was supposed to be a tempororary state of affairs, basically a consequence of the baseline New Keynesian model with one representative agent that cannnot generate permanently negative real interest rates. Eventually, both

prices and wages would adjust in the long run and the economy would return to its normal equilibrium state (Krugman 1998).

Summers's contribution was to expose the fact that a macroeconomy could potentially suffer from a permanent economic slump as a result of insufficient aggregate demand. The liquidity trap and the associated downturn would thus not be simply a temporary state of affairs, but rather a macroeconomic feature that might stick with us for a long time (Summers 2014). Summers has argued that the U.S. economy was merely getting along even in the two decades prior to the financial crisis even though financial conditions could be described as extremely accomodative. The late 1990s were chracterized by the dot-com stock price bubble, which was subsequently replaced by the housing bubble in the early 2000s. Moreover, the U.S. started to run sizeable fiscal deficits, partially a result of the war efforts in the Middle East. And yet, despite the fiscal impulse and extraordinarily easy financial conditions with two subsequent bubbles, the U.S. economy was merely performing adequately. While economic growth from the late 1990s to the mid-2000s was not bad, it certainly was not reaching growth rates achieved in previous decades, such as the immediate postwar period (Jones 2016). With all of these factors in view, Summers has come to believe that the period of secular stagnation already started a couple of decades ago, and that the U.S. economy has only performed reasonably well during that period because of two financial bubbles combined with loose fiscal policies and low interest rate policies (Summers 2015a; b).

The reason that secular stagnation can become a permanent feature of the economy is that central banks simply might be unable to achieve a sufficiently negative real interest to restore full employment. If the natural rate has fallen significantly below zero for structural reasons, the economy can get stuck in a permanent aggregate demand slump. Even wage and price adjustment in the medium run might not turn out to be the cure since expectations of deflation lead to an increase in the real interest rate. More importantly, any decline in nominal incomes will aggravate the burden of debt since debt contracts are written in nominal terms (Sheedy 2014).

Certainly one key cause of secular stagnation, the long-run downward trend in real interest rates, already started in the 1990s (Haldane 2015; Rachel and Smith 2015; Probst 2019a). Summers's contribution was to show that an economy might feature negative real interest rates for prolonged periods and that such an outcome could be a long-run equilibrium in certain circumstances (Summers 2015b). While earlier New Keynesian models would not allow for negative real interest rates, a number of recent contributions have been made on the theoretical side to show that some models actually can generate such a result. Gauti Eggertson et al. (2017) have shown that an OLG model with many different cohorts can under some

circumstances yield a persistently negative equilibrium interest rate. In their life-cycle model, aging population, low fertility, and low productivity growth are the ultimate drivers of the declining and negative natural interest rate. Similarly, Jason Lu and Coen Teulings (2016) show within the OLG framework that the decline in real interest rates is related to shrinking cohort sizes. More recently, Summers himself has contributed to this growing literature by incorporating open-economy dynamics into the model. His paper with Eggertson et al. (2016) demonstrates that the secular stagnation equilibrium can be exported across the globe, using a simple two-country open-economy model. More specifically, an economy that experiences secular stagnation will find itself exporting capital to the rest of the world. While this alleviates the secular stagnation equilibrium at home, the foreign economy must now deal with the resulting capital inflow. At the extreme, this will reduce the natural interest rate to such an extent that the foreign economy will now also display a negative equilibrium interest rate in the long run (Eggertson et al. 2016). The underlying problem is that the ZLB is binding, which prevents the central banks from achieving a sufficiently large negative real interest rate to restore full employment.

Ironically, capital flows might therefore transmit the secular stagnation equilibrium from one country to another (Eggertson et al. 2016). And in recent decades most advanced economies have experienced simultaneous declines in real interest rates. Furthermore, some research shows that the impact of global factors on the determination of national real interest rates has been increasing (Probst 2019a), meaning that domestic monetary policymakers might have much less influence on domestic financial variables than previously assumed. It therefore stands to reason that fiscal policy must be the line of first resort in a world in which all economies are simultaneously constrained by the ZLB (Summers 2015b; Eggertson et al. 2016).

Empirical contributions

On the empirical side, Summers's 2013 remarks have kicked off a significant macroeconomic research agenda. In the following section, I distinguish between the main macroeconomic causes and consequences of secular stagnation. For some macroeconomic phenomena the categorization is clear, but some others such as declining real interest rates and falling productivity growth can be thought of as both causes and consequences of secular stagnation.

Causes of secular stagnation

1. Declining productivity growth
2. The falling price of investment goods and the growing digital economy
3. Aging societies
4. Increasing monopolization

The economic literature on declining productivity levels has grown significantly in recent years, with Cowen's *The Great Stagnation* (2011) and Gordon's *The Rise and Fall of American Economic Growth* (2017) being maybe the most notable contributions. While there is still a debate on whether low productivity is simply a scarring effect from the financial crisis and the subsequent economic recession (Rogoff 2016; Bergeaud et al. 2018), a number of researchers have established that the decline in productivity growth had already occurred in the decade prior to the financial crisis (Cowen 2011; Gordon 2017; 2018). It therefore stands to reason that the U.S. and other advanced economies switched to a low-growth regime prior to the burst of the housing bubble (Fernald 2015), which seems to be in accordance with Summers's secular stagnation theory. Furthermore, the decline in productivity growth is not only a U.S.-specific phenomenon but can be observed on a global scale (Erber et al. 2017).

Declines in the prices of investment goods have also received increasing attention from economists. Loukas Karabarbounis and Brent Neiman (2013) have emphasized that this specific factor might have contributed to increasing capital shares around the world. Gregory Thwaites (2015) has confirmed this result within an OLG framework and shows that it has contributed to both declining real interest rates and a lower labor share. Similarly, Carl Frey (2015) has emphasized that the digital economy requires much less investment in capital goods. As Summers has outlined himself, companies like Facebook, Netflix, and Twitter have now achieved greater stock market valuations than General Electric, General Motors, and other companies that have hundreds of thousands of employees (Summers 2014). While General Motors is a very capital-intensive company with factories all over North America, Facebook and Twitter have needed only their IT equipment plus office space for their several thousand employees to create stock market valuations larger than former giants like GE and GM. The rise of the digital economy and the associated decline in capital-intensive investments has led to an inward shift of the investment demand schedule, thus contributing to the decline in real interest rates (Summers 2014).

Undoubtedly, another key factor leading to secular stagnation is adverse demographics in industrial nations. All major advanced economies have experienced significant declines in birth rates in recent decades. This trend combined

with increases in life expectancy have led to rapidly aging societies, with Japan affected the most. Krugman (1998) already suggested in the late 1990s that adverse demographic trends might have helped push the Japanese economy into a liquidity trap because they caused the natural rate of interest to fall. Now, some two decades later, several research papers have established the link between demographics and falling real interest rates (Rachel and Smith 2015; Lu and Teulings 2016).

Last but not least, a number of papers have discussed the issue of increasing monopolization. Erik Grenestam and Julius Probst (2014) estimate markups for all U.S. industries and show that rising markups have contributed to the decline in the U.S. labor share. Simcha Barkai (2016) comes to the same conclusion. David Dorn et al. (2017) argue that the fall of the labor share has been caused by the rise of superstar firms, which tend to be more capital-intensive in general. Jan De Loecker and Jan Eckhout (2017) have found evidence for increasing market power across all U.S. industries, and they say that this phenomenon can explain some of the secular trends linked with the secular stagnation debate, such as the declining labor share and decreased labor market dynamism, which in turn could explain part of the declining productivity growth that has occurred in recent decades.

Consequences of secular stagnation

1. The global decline in real interest rates
2. The increase in asset prices and private sector debt
3. Rising inequality

As outlined above, a very large number of macroeconomic research papers have documented the decline in real interest rates across the globe. Some contributions have focused on the secular decline in actual real interest rates in recent decades (Rachel and Smith 2015; 2017; Carvalho et al. 2016; Probst 2019a). And many of these papers have identified adverse demographics, primarily aging populations in advanced economies, as the key factor driving this trend (Gagnon et al. 2016). Other economists have taken a super-long-run approach and documented that interest rates have *never* been as low before as they are today, back to the Middle Ages or even Babylonian times (Haldane 2015; Schmelzing 2017). Separately, a different strand of literature has estimated the natural rate of interest, the rate that balances aggregate demand and aggregate supply at full employment, and has come to the conclusion that it has fallen quite significantly (Laubach and Williams 2016; Williams 2016). Obviously these two phenomena are linked, given that actual interest rates eventually have to adjust to the natural rate or vice versa.

The long-term decline in real interest rates has also coincided with a significant increase in asset prices. Economic historians have documented that

the significant increase in inflation-adjusted real estate prices is a relatively novel phenomenon that started after the end of Bretton Woods. The increase in real housing prices has been supported by an enormous amount of private sector debt creation (Turner 2017), with mortgage to GDP ratios now approaching 100 percent in some Western economies (Jordà et al. 2011a; 2017a).

In terms of rising inequality, many economists have recently focused on the increase in the capital share and the increase in top income shares across advanced economies (Karabarbounis and Neiman 2013; Piketty 2005), with Thomas Piketty's *Capital in the Twenty-First Century* (2014) being the most famous contribution to this literature. Economic historians have established that in advanced economies the capital share is approaching values not seen since the early 20th century (Bengtsson and Waldenström 2018). Lower equilibrium real interest rates have exacerbated the rise in asset prices, including real estate. Consequently, both imputed rents and the depreciation share of GDP have risen too. All of these factors, in turn, contributed to the decrease of the gross labor share (Probst 2017a; 2017b; 2019c).

A unifying framework

All seven macroeconomic phenomena mentioned above are linked to the secular stagnation debate: four causes and three consequences. While many empirical research papers have focused on one of these macroeconomic effects in isolation, there is now increasing evidence that they are all interrelated. Adverse demographics undoubtedly had an effect on real interest rates, and maybe even productivity trends (Summers 2015b). The decline in interest rates has led to elevated asset prices while at the same time decreasing the opportunity cost of debt and therefore allowing for higher debt levels, in general (Turner 2017). Some authors have argued that the decline in real interest rates, combined with elevated asset prices, has also affected the capital share of GDP and therefore contributed to rising inequality (Probst 2017b; 2019c).

Summers's contribution therefore was to link all of these factors within the unifying framework of secular stagnation. Most notably, Summers himself has contributed significantly to the growing research on some of the topics mentioned above. Some of the previous economic literature has argued that aging societies and GDP per capita growth are positively correlated (Cutler et al. 1990; Acemoglu and Restrepo 2017). As Summers and co-authors determined, this result is plausible because such economies might have to rely to a greater extent on automation and labor-saving technologies as a result of labor scarcity (Cutler et al. 1990). However, in a new research paper, Summers and co-authors now show that this mechanism breaks down when countries are stuck at the ZLB, simply because savings and

capital accumulation, virtuous during normal economic times, become a vice in the secular stagnation condition (Eggertson et al. 2018). Lukasz Rachel and Summers (2019) argue that the private sector neutral rate might have fallen by some 700 basis points since the late 1970s. This secular trend was offset by a massive expansion of public sector debt across advanced economies, meaning that the overall neutral rate has fallen by only 300 basis points. Fiscal policy has therefore operated to raise neutral rates, all else equal. Rachel and Summers (2019) therefore argue that, going forward, fiscal policy will need to remain expansionary in order for the neutral rate not to fall into deeper negative territory, which would complicate monetary policy even further, given that many advanced economies still struggle with the ZLB.

Policy analysis and policy recommendations

Summers's most important work in recent years has offered macroeconomic policy analysis as well as policy recommendations within the framework of the secular stagnation debate. Before reviving that neglected theory in 2013, Summers had already outlined that, going forward, fiscal policy might have a bigger role to play for macroeconomic stabilization policies. The macroeconomic consensus before the crisis was more or less that monetary policy was both effective and sufficient in keeping aggregate demand stable and maintaining full employment. This viewpoint, however, broke down after the financial crisis. Using a simple New Keynesian model, DeLong and Summers (2012) have examined the efficacy of fiscal policy when monetary policy is constrained by the ZLB. Their theoretical results show that in such a case, fiscal multipliers are potentially very large, with the "net of monetary offset fiscal multiplier" most likely exceeding one. Moreover, and somewhat surprising, using reasonable parameter values for hysteresis effects, any fiscal expansion might actually be self-financing (ibid.). This result also helps to explain why austerity policies were so harmful and basically self-defeating in Southern Europe (Blanchard and Leigh 2013); any fiscal consolidation led to a severe contraction in nominal GDP, which therefore increased rather than decreased the actual debt burden.

In the same spirit, Summers and co-authors have pointed out that fiscal policy might become more relevant in an environment where the natural rate of interest is low and falling, thus increasing the likelihood of prolonged ZLB episodes (Ball et al. 2014). With plausible hysteresis effects, expansionary fiscal policy is self-financing. Furthermore, a substantial fiscal expansion might close the output gap by pushing actual GDP back up to its potential instead of the gap by potential GDP shifting downward over time (ibid.). Subsequent contributions (Summers 2015b; 2016b) further outline the need for fiscal stimulus based on his analysis of the

secular stagnation debate. If the real interest rate required to reach full employment is indeed negative for a prolonged period of time, economies might require a more or less permanent fiscal expansion in order to avoid demand-induced recessions that will last for many years. Moreover, demand-side management becomes extremely relevant, especially in the case of hysteresis effects, which could scar the economy's long-run capacity and lead to substantial downward revisions in potential GDP (Fatás and Summers 2016).

In earlier work Blanchard and Summers outlined the European unemployment problem in the 1980s, when a large number of workers became disenfranchised from the labor market after European economies were hit by a series of adverse macroeconomic shocks (Blanchard and Summers 1986). However, notably, DeLong and Summers (1988) rejected earlier studies that found a unit root in the national U.S. GDP series. Contradicting Charles Nelson and Charles Plosser (1982), DeLong and Summers (1988) found that permanent economic shocks have been largely absent from the U.S. business cycle during the postwar period. This evidence, in their view, supports a New Keynesian model of the business cycle because it implies that most macroeconomic shocks were of transitory nature. Whether this implies that Keynesian macroeconomic stabilization policies have therefore mostly done their job during the postwar period they leave open to debate. Furthermore, it stands to reason that the DeLong and Summers conclusion might be somewhat outdated, for as argued above, the nature of the business cycle seems to have changed in the early 2000s. More recent work has suggested that financial crises might be much more damaging to the economy than what standard macroeconomic analysis has previously assumed (Reinhart and Rogoff 2009; Jordà et al. 2011a; b). Antonio Fatás and Summers (2016; 2018) have confirmed the presence of significant hysteresis effects in the aftermath of the global financial crisis. The persistence of output shocks might be a natural result of the pro-cyclical nature of investment activities and research and development expenditures, thus leading to endogenous growth cycles. A substantial demand-side shock can be aggravated on the supply side, thus further strengthening the case for countercyclical demand management, including expansionary fiscal policy (ibid.).

In terms of monetary policy, Summers and co-authors have recently determined that the correlation between output gaps and inflation rates—the so-called 'divine coincidence,' a core feature of many New Keynesian models—has weakened substantially in the aftermath of the crisis (Blanchard et al. 2015). One of the mysteries of the Great Depression is why inflation did not decline by more despite the significant shortfall in aggregate demand. Ironically, inflation targeting might have become the victim of its own success. Central banks managed to keep both inflation expectations as well as actual inflation fairly stable even in the face of

massive output gaps. Summers and co-authors therefore emphasize that monetary policy should put a larger weight on stabilizing output instead of stabilizing inflation (ibid.).

Given these considerations, a number of economists have suggested that central banks should target nominal GDP, which would automatically put a higher weight on output fluctuations than what the standard Taylor rule suggests. More importantly, such a target has the desirable property of minimizing aggregate demand fluctuations by keeping nominal incomes growing at a stable rate (Sumner 2012; Sheedy 2014; Selgin et al. 2015). While Summers (2016a) has been relatively skeptical about the efficacy of monetary policy going forward in an environment where the natural interest rate might be persistently negative, he has recently conceded that a nominal GDP growth target of 5 to 6 percent might be more optimal than the current inflation targeting regime (Summers 2018). More specifically, a nominal GDP target has, by design, the desired effect that the expected rate of inflation rises if the real growth rate declines, therefore making monetary policy respond to macroeconomic conditions in a more countercyclical way (ibid.). The adoption of such a target is relevant because other monetary policy tools might have run into diminishing returns. This is especially true for interest rates, given the ELB constraint. While some central banks like the European Central Bank and the Swedish Riksbank have implemented slightly negative nominal interest rates on bank reserves, there is a natural limit to this policy because banks would ultimately substitute reserves for cash if the negative tax becomes excessive. Furthermore, as Summers and co-authors have emphasized more recently, negative interest rates might not be as stimulative as previously assumed for two reasons (Eggertson et al. 2019). First, the pass-through effect to deposit and lending rates breaks down once the benchmark interest rate turns negative. Second, negative rates might reduce bank profitability and therefore turn out to be contractionary. While more evidence seems to be required, their paper further speaks to the fact that under secular stagnation, policymakers increasingly may have to substitute monetary policy with fiscal policy for effective demand management and macroeconomic stabilization policies.

Arguing against secular stagnation: A healthy dose of skepticism

A number of economists have rejected Summers's claims on the grounds that he has revived an old-Keynesian fallacy that was rebutted a long time ago. Rogoff (2015; 2016) has outlined his objections with his debt super-cycle theory.

His theory is similar to arguments made by Richard Koo (2014) and Bernanke (2018) who both believe that the underlying problem is a severe balance-sheet recession, like the one Japan experienced in the aftermath of its bursting stock and real estate bubble in the late 1980s. However, if this was the case, we should have seen a swifter economic recovery by now, given that private sector agents have had an entire decade to deleverage and repair their balance sheets.

Caballero and Emmanuel Farhi (2014; 2017), on the other hand, have argued that the global economic woes are caused by a global safe asset shortage, which keeps the economy stuck in a safety trap. However, the supply of safe assets has actually expanded, especially in the U.S. with the trillion-dollar tax cut, while interest rates have continued their downward trend. It therefore seems that the fundamental problem is on the demand side and not the supply side.

More recently, Barry Eichengreen (2015) has summarized four different theories of secular stagnation: a rise in global savings, adverse demographics that make investment opportunities less desirable, a slowdown in productivity growth, and finally a fall in the relative price of investment goods. Taking a long-run economic history view, Eichengreen (2015) rejects the first three explanations and comes out in favor of proposition number four. Given the amount of evidence we now have on how real interest rates are determined by demographic factors, it is somewhat puzzling to see Eichengreen being so dismissive of that factor.

Similarly, Joel Mokyr (2014) is extremely dismissive of the idea that we have entered a period of technological stagnation. While his optimism might be somewhat unfounded given the recent productivity data, Mokyr is correct in arguing that long-term productivity trends are impossible to forecast. Regardless, supply-side pessimism is just one of several factors that can contribute to secular stagnation, and Summers's arguments focus to a big extent, although not exclusively, on the demand side of the economy.

Stefan Homburg (2014) argues that the secular stagnation debate misses the importance of land. Including land as a factor of production, Homburg shows within a simple model that interest rates must remain strictly positive. However, this result only holds true for the risky rate of interest. As outlined above, a substantial literature has now documented that the natural real rate of interest has been persistently negative across advanced economies in recent years. A negative rate on safe assets is not inconsistent with the fact that more risky types of capital, such as stocks and real estate, still yield substantial positive returns. It simply implies that the wedge between the two, the macroeconomic risk premium, might be higher in secular stagnation than during normal economic conditions (Jordà et al. 2017b).

While all of these authors mentioned above address and focus on one particular aspect of the secular stagnation debate, it seems to me that, in general,

they neglect many of the key factors of Summers's theory and therefore also miss the bigger picture.

Can the theory of secular stagnation be falsified, and does it matter?

According to Karl Popper, the most important attribute of a hypothesis is falsifiability (Lakatos 1976), especially in the realms of social sciences where we do not encounter any universal laws. Macroeconomics can therefore only progress if we reject theories for which we cannot find sufficient empirical evidence, real business cycle theory being one such example (Farmer 2017), as I will argue below. However, it is not clear whether the proposition of secular stagnation can ever be verified with certainty. First, it is not self-evident how many years of data we need to validate Summers's hypothesis. The financial crisis and global recession occurred almost exactly one decade ago. As Nicholas Crafts argued back in 2014, the verdict is still out whether the world has indeed entered secular stagnation. He also conceded that Europe is more prone to secular stagnation because of adverse demographics and unfavorable macroeconomic policies. However, ever since Crafts (2014) put forward his arguments, economic growth has continued to disappoint, especially in the Eurozone, and interest rates have continued their secular downward trend instead of edging upwards as one would expect with an ongoing economic recovery.

The question though remains whether one decade of depressed interest rates and subdued global economic activity is enough to confirm Summers's hypothesis. And if not, how many more years and how many additional data points do we need? Furthermore, the absence of observed secular stagnation does not necessarily invalidate Summers's theory either. As he has repeatedly pointed out, his hypothesis does not call for policy inaction, but rather the contrary. The right combination of expansionary fiscal and monetary policies can certainly cure the underlying economic malaise (Summers 2016b). If we escape the secular stagnation regime in the near future, it thus might simply be because policymakers at the Fed and elsewhere have embraced the underlying theory and implemented policies that have successfully acted against it. Conditional on policymakers' inaction, secular stagnation might well be a reality. But sufficiently expansionary fiscal and monetary could greatly reduce the threat of an advanced economies being trapped in a low-growth regime. While central banks theoretically can only address the weakness of aggregate demand, there is some reason to believe that a full-employment policy might also have benefits for productivity growth and the supply side of the

economy, particularly in light of Verdoorn's law (Rowthorn 1979).

Seeing that an absence of observed secular stagnation does not necessarily invalidate Summers's theory, I will in this case argue against Popper and claim that falsifiability of this grand theory might not be that important. Some five years after Summers first outlined his thoughts, we should have much more confidence in the secular stagnation theory. Since 2013, macroeconomists have found increasing empirical evidence for many of the aspects of his theory, ranging from declining real interest rates and lower productivity growth to increasing capital shares and increasing monopolization across advanced economies. Given that some of the core hypotheses of the secular stagnation theory have now found increasing empirical support, macroeconomic theorists should update their priors accordingly. And policymakers would do well to embrace the secular stagnation theory simply from a risk-management point of view, since the costs of slightly too expansionary policies largely seem to be outweighed by the costs from getting stuck in a more or less permanently low-growth equilibrium.

Other notable contributions to the field of macroeconomics

During his career, Summers has generated one of the most substantial research outputs within macroeconomics, in fact one too extensive for me to do justice to all his contributions in a few paragraphs. After Summers was awarded the John Bates Clark medal, James Poterba (1995) outlined some of Summers's earlier work. Here I treat only some of the more notable research papers. Table 1 in this article includes 40 works I deem especially important.

Some economists now entertain the idea that real business cycle theory (RBC) was a somewhat costly detour within macroeconomics that has not been able to add substantial value to the field (Farmer 2017). The theoretical contributions, however, were certainly much more important, since the microfoundations provided the necessary tools and the entire core on which modern New Keynesian macroeconomic theory is based (Obstfeld and Rogoff 1996). The empirical research, on the other hand, has found very little evidence to support the RBC theory that economic fluctuations are driven by technology or productivity shocks. Summers himself has made several skeptical observations. He observed that RBC theory does not seem to be in accordance with any of the stylized facts on business cycles (Manuelli 1986; Summers 1986b). First, other than the oil price shock it is unclear which technology shocks should be responsible for the macroeconomic fluctuations that the U.S. economy has experienced during the

postwar period. Second, microeconomic evidence does not much support RBC models either, since the models imply implausible parameter values for the intertemporal substitution of labor supply (Summers 1986b). It is obviously problematic if a model can only fit the aggregate data by using parameter values that have been rejected in many empirical microeconomic studies. Unfortunately, this critique applies not only to the now out-of-fashion RBC models but also to more state-of-the-art New Keynesian dynamic stochastic general equilibrium models (Chetty et al. 2011), thus casting some doubt on whether modern macroeconomic theory has actually made sufficient progress (Farmer 2017).

Following the 'rational expectations revolution' initiated by Robert Lucas and Edward Prescott, neoclassical macroeconomics took on board the assumption that economic agents are solving dynamic optimization problems, involving decisions on present and future consumption as well as leisure choices (Obstfeld and Rogoff 1996). Summers and co-authors already showed a while ago, however, that the U.S. business cycle facts are hard to reconcile with the representative agent model because they would require extremely unrealistic assumptions about the utility function (Mankiw et al. 1985). This work therefore was a very early rejection of the standard Euler equation, which has unfortunately remained one of the key equations in modern macroeconomic models despite being rejected by empirical data (Canzoneri et al. 2007).

Another core feature of New Keynesian macroeconomics is the natural rate hypothesis, originally a monetarist idea (Friedman 1969). New Keynesian macroeconomics has taken on board the assumption that both real interest rates as well as unemployment rates are independent of monetary policy and determined by structural factors in the economy. For that reason, according to DeLong (2000), New Keynesian models should rather be labelled New Monetarist, and Farmer goes so far as to call it "bastardized Keynesianism" (Farmer 2017). Blanchard (2018) has recently put forward some strong arguments against the natural rate hypothesis, which if accepted would be a powerful blow to New Keynesianism given that the natural rate is one of the standard building blocks of most modern macroeconomic models. The work relies on earlier research in which Blanchard and Summers (1986) suggest that the natural rate hypothesis is actually not a useful framework for analyzing the European excess unemployment problem of the 1980s.

Blanchard and Summers (1987) also developed the notion of fiscal increasing returns. The European unemployment problem was historically explained by excessive real wages. Tax cuts might be self-financing when output expands, obviating the need for a real wage decline in order to restore equilibrium in the high unemployment economy (Blanchard and Summers 1986; Poterba 1995). Moreover, DeLong and Summers (1988) put forward some additional arguments

for Keynesian demand management. The authors argue that recessions might simply be temporary lapses from full employment, similar to Friedman's plucking model (Friedman 1993), rather than being cycles about a trend as most New Keynesian models assume. In the first case, recession prevention can arguably affect the not only the variance but also the average level of output and therefore be greatly welfare-improving (DeLong and Summers 1988).

While in the simple New Keynesian model, output fluctuations are the result of price and wage rigidities, Farmer (2017) has recently argued that this is a misrepresentation of Keynes's original writings. While nominal rigidities certainly can contribute to output shocks, Keynes never assumed that they are the only source of negative demand shocks (ibid.). In this spirit, DeLong and Summers (1985) show that moving an economy towards more price flexibility can actually be destabilizing. Their work focuses on the negative aggregate demand effects when higher price flexibility increases inflation and therefore reduces the real wealth of some households (see also Poterba 1995). In a subsequent paper, Julio Rotemberg and Summers (1990) show that nominal price rigidities lead to a procyclical pattern in productivity, resulting from the need to set prices before demand is known. The authors show that the procyclical productivity patterns is more pronounced in industries with labor hoarding and higher price rigidities (Rotemberg and Summers 1990; Poterba 1995).

In another research paper, DeLong and Summers also examine the nature of the U.S. business cycle in more detail. Using data for the U.S. and five other OECD countries, the authors establish that there is very little evidence for asymmetry in the business cycle, as some previous research has argued (DeLong and Summers 1984). Contractions therefore do not seem to be of shorter duration nor more violent than economic expansions (ibid.). However, there is reason to believe that this earlier conclusion might now have been overturned within secular stagnation.

Other notable contributions to the field of macroeconomics and financial economics include Summers's work on stock markets and the economy. According to the efficient market hypothesis, stock market movements should be explained by incoming new data on future cash flows and discount rates. However, Summers and co-authors show that only part of the stock volatility can be explained by new macroeconomic news (Cutler et al. 1989). Furthermore, stock markets often seem to move without the occurrence of any major identifiable macroeconomic news (ibid.), thus casting some doubt on the efficient market hypothesis, as proposed by Eugene Fama and others (Malkiel and Fama 1970). The stock market, more likely than not, does not reflect fundamental value (Summers 1986a). Moreover, Poterba and Summers find evidence for positive autocorrelation in stock returns in the very short run, and negative autocorrelation over longer time horizons (Poterba and Summers 1988). Mean reversion in stock prices therefore contradicts the random

walk hypothesis suggested by Burton Malkiel (1999).

In later contributions, DeLong, Andrei Shleifer, Summers, and Robert Waldman demonstrate that the existence of noise traders can explain why asset prices might significantly diverge from fundamentals at times (DeLong et al. 1988; 1990a). Moreover, the authors (Delong et al. 1990a; b) show in an OLG model how noise traders can contribute to a number of financial market anomalies, including excess volatility as well as the famous equity risk premium puzzle raised by Rajnish Mehra and Prescott (1985). DeLong et al. (1990a; b), as well as Andrei Shleifer and Summers (1990), have outlined that some investors are not fully rational. Furthermore, because of risk, arbitrageurs might not always fully counter mispricing in financial markets. Combining these two facts, Shleifer and Summers (1990) argue that what they call the "noise trader approach" to finance might be more fruitful than the efficient market hypothesis for explaining some of the key characteristics of financial markets.

Summers has also contributed to the field of development economics and health economics. In his function as Chief Economist at the World Bank, Summers (1994) elaborates that educating women in low-income countries might yield substantial economic returns. Increasing educational opportunities for girls offers the best prospect of reducing female deprivation in low-income countries. Furthermore, it also has the long-run potential to transform societies for the better (ibid.).

In a different paper, Summers and coauthors (Easterly et al. 1993) determine that country growth spurts are most often not the result of good policy. While country characteristics are highly persistent, output growth per capita is not. Given that macroeconomic shocks seem to explain a significant fraction of the variance in growth rates over 10-year periods, one must therefore be very cautious in attributing high growth rates to good policy rather than mere random variation, i.e., luck.

Summers contributed recently to the Global Health Report, which establishes that the macroeconomic returns on investing in global health are impressive (Jamison et al. 2013). Given that health improvements have accounted for some 11 percent of economic growth in low-income and middle-income countries, the authors argue for greater action by both national governments and the international community. Global investments in health might contribute to economic convergence, which has remained elusive for some low-income countries (ibid.). Moreover, Lant Pritchett and Summers (1993) estimate that the income elasticity of child mortality lies between −0.2 and −0.4. The authors therefore argue that about half a million child deaths in 1990 alone can be attributed to the poor economic performance of the 1980s.

Besides his notable earlier contributions to public finance, labor economics,

financial economics, and macroeconomics, which are summarized by Poterba (1995), Summers has therefore also advanced the literature in development and health economics.

TABLE 1. 40 selected contributions by Lawrence Summers

Secular stagnation:
1. **Blanchard, Olivier J., Eugenio Cerutti, and Lawrence H. Summers**. 2015. Inflation and Activity—Two Explorations and Their Monetary Policy Implications. *NBER Working Paper* 21726. National Bureau of Economic Research (Cambridge, Mass.). {273 citations, according to Google Scholar, as of September 2019}
2. **Eggertsson, Gauti B., Neil R. Mehrotra, and Lawrence H. Summers**. 2016. Secular Stagnation in the Open Economy. *American Economic Review Papers and Proceedings* 106(5): 503–507. {64}
3. **Eggertsson, Gauti B., Manuel Lancastre, and Lawrence H. Summers**. 2018. Aging, Output Per Capita and Secular Stagnation. *NBER Working Paper* 24902. National Bureau of Economic Research (Cambridge, Mass.). {8}
4. **Eggertsson, Gauti B., Ragnar E. Juelsrud, Lawrence H. Summers, and Ella Getz Wold**. 2019. Negative Nominal Interest Rates and the Bank Lending Channel. *NBER Working Paper* 25416. National Bureau of Economic Research (Cambridge, Mass.). {16}
5. **Fatás, Antonio, and Lawrence H. Summers**. 2016. Hysteresis and Fiscal Policy During the Global Crisis. *VoxEU.org* (Centre for Economic Policy Research, London), October 12. {8}
6. **Fatás, Antonio, and Lawrence H. Summers**. 2018. The Permanent Effects of Fiscal Consolidations. *Journal of International Economics* 112: 238–250. {132}
7. **Rachel, Łukasz, and Lawrence H. Summers**. 2019. On Falling Neutral Real Rates, Fiscal Policy, and the Risk of Secular Stagnation. *Brookings Papers on Economic Activity*, Spring. {20}
8. **Summers, Lawrence H**. 2014. U.S. Economic Prospects: Secular Stagnation, Hysteresis, and the Zero Lower Bound. *Business Economics* 49(2): 65–73. {871}
9. **Summers, Lawrence H**. 2015. Demand Side Secular Stagnation. *American Economic Review Papers and Proceedings* 105(5): 60–65. {248}
10. **Summers, Lawrence H**. 2016. Secular Stagnation and Monetary Policy. *Federal Reserve Bank of St. Louis Review* 98(2): 93–110. {40}
11. **Summers, Lawrence H**. 2016. The Age of Secular Stagnation: What It Is and What to Do About It. *Foreign Affairs* 95(March–April): 2–9. {274}
12. **Summers, Lawrence H**. 2018. Why the Fed Needs a New Monetary Policy Framework. In *Rethinking the Fed's 2 Percent Inflation Target*, by Lawrence H. Summers, David Wessel, and John David Murray, 1–9. Hutchins Center on Fiscal and Monetary Policy, Brookings Institution (Washington, D.C.). {5}
Financial economics:
13. **Cutler, David M., James M. Poterba, and Lawrence H. Summers**. 1989. What Moves Stock Prices? *Journal of Portfolio Management* 15(3): 4–12. {1,527}
14. **DeLong, J. Bradford, Andrei Shleifer, Lawrence H. Summers, and Robert J. Waldmann**. 1988. The Survival of Noise Traders in Financial Markets. *Journal of Business* 64(1): 1–19. {947}
15. **DeLong, J. Bradford, Andrei Shleifer, Lawrence H. Summers, and Robert J. Waldmann**. 1990. Positive Feedback Investment Strategies and Destabilizing Rational Speculation. *Journal of Finance* 45(2): 379–395. {3,039}
16. **DeLong, J. Bradford, Andrei Shleifer, Lawrence H. Summers, and Robert J. Waldmann**. 1990. Noise Trader Risk in Financial Markets. *Journal of Political Economy* 98(4): 703–738. {6,429}
17. **Poterba, James M., and Lawrence H. Summers**. 1988. Mean Reversion in Stock Prices: Evidence and Implications. *Journal of Financial Economics* 22(1): 27–59. {3,294}
18. **Shleifer, Andrei, and Lawrence H. Summers**. 1990. The Noise Trader Approach to Finance. *Journal of Economic Perspectives* 4(2): 19–33. {1,945}
19. **Summers, Lawrence H**. 1986. Does the Stock Market Rationally Reflect Fundamental Values? *Journal of Finance* 41(3): 591–601. {1,566}

Other (macro-)economic contributions:
20. **Blanchard, Olivier J., and Lawrence H. Summers**. 1986. Hysteresis and the European Unemployment Problem. *NBER Macroeconomics Annual* 1: 15–78. {2,566}
21. **Blanchard, Olivier J., and Lawrence H. Summers**. 1987. Fiscal Increasing Returns, Hysteresis, Real Wages and Unemployment. *European Economic Review* 31(3): 543–560. {152}
22. **Blanchard, Olivier J., and Lawrence H. Summers**. 1988. Beyond the Natural Rate Hypothesis. *American Economic Review* 78(2): 182–187. {264}
23. **Cutler, David M., James M. Poterba, Louise M. Sheiner, and Lawrence H. Summers**. 1990. An Aging Society: Challenge or Opportunity? *Brookings Papers on Economic Activity* 1990(1): 1–73. {11}
24. **DeLong, J. Bradford, and Lawrence H. Summers**. 1984. Are Business Cycles Symmetric? *NBER Working Paper* 1444. National Bureau of Economic Research (Cambridge, Mass.). {304}
25. **DeLong, J. Bradford, and Lawrence H. Summers**. 1985. Is Increased Price Flexibility Stabilizing? *American Economic Review* 76(5): 1031–1044. {307}
26. **DeLong, J. Bradford, and Lawrence H. Summers**. 1988. On the Existence and Interpretation of a "Unit Root" in U.S. GNP. *NBER Working Paper* 2716. National Bureau of Economic Research (Cambridge, Mass.). {24}
27. **DeLong, J. Bradford, and Lawrence H. Summers**. 1988. How Does Macroeconomic Policy Affect Output? *Brookings Papers on Economic Activity* 1988(2): 433–480. {486}
28. **DeLong, J. Bradford, and Lawrence H. Summers**. 2012. Fiscal Policy in a Depressed Economy. *Brookings Papers on Economic Activity*, Spring: 233–274. {830}
29. **Easterly, William, Michael Kremer, Lant Pritchett, and Lawrence H. Summers**. 1993. Good Policy or Good Luck? *Journal of Monetary Economics* 32(3): 459–483. {1,224}
30. **Jamison, Dean T., Lawrence H. Summers, George Alleyne, Kenneth J. Arrow, Seth Berkley, Agnes Binagwaho, et al**. 2013. Global Health 2035: A World Converging Within a Generation. *The Lancet* 382(9908): 1898–1955. {948}
31. **Mankiw, N. Gregory, Julio J. Rotemberg, and Lawrence H. Summers**. 1985. Intertemporal Substitution in Macroeconomics. *Quarterly Journal of Economics* 100(1): 225–251. {600}
32. **Pritchett, Lant, and Lawrence H. Summers**. 1993. Wealthier Is Healthier. *Research Working Papers* WP1150. World Bank (Washington, D.C.). {1,503}
33. **Rotemberg, Julio J., and Lawrence H. Summers**. 1990. Inflexible Prices and Procyclical Productivity. *Quarterly Journal of Economics* 105(4): 851–874. {135}
34. **Summers, Lawrence H**. 1986. Some Skeptical Observations on Real Business Cycle Theory. *Quarterly Review* (Federal Reserve Bank of Minneapolis), Fall: 23–27. {471}
35. **Summers, Lawrence H**. 1994. *Investing in All the People: Educating Women in Developing Countries*. Washington, D.C.: World Bank. {464}
A few selected papers not mentioned in this essay, based on Poterba's (1995) summary of Summers's earlier contributions:
36. **Barsky, Robert B., and Lawrence H. Summers**. 1988. Gibson's Paradox and the Gold Standard. *Journal of Political Economy* 96(3): 528–550. {144}
37. **Bernheim, B. Douglas, Andrei Shleifer, and Lawrence H. Summers**. 1986. The Strategic Bequest Motive. *Journal of Labor Economics* 4(3, Part 2): S151–S182. {1,862}
38. **Krueger, Alan B., and Lawrence H. Summers**. 1988. Efficiency Wages and the Inter-Industry Wage Structure. *Econometrica* 56(2): 259–293. {2,195}
39. **Summers, Lawrence H**. 1982. The Nonadjustment of Nominal Interest Rates: A Study of the Fisher Effect. *NBER Working Paper* 836. National Bureau of Economic Research (Cambridge, Mass.). {370}
40. **Summers, Lawrence H., Barry P. Bosworth, James Tobin, and Philip M. White**. 1981. Taxation and Corporate Investment: A Q-Theory Approach. *Brookings Papers on Economic Activity* 1981(1): 67–140. {1,076}
Notes: Numbers in braces are counts of citations according to Google Scholar as of September 2019. The total counts for each grouping of contributions listed are: Secular stagnation, 1,959; Financial economics, 18,747; Other (macro-)economic contributions, 10,289; A few selected papers…, 5,647.

Shortcomings and controversies regarding Summers as a potential Nobel laureate

Summers the liberalizer

There are very few certainties in life, but one of them is that nobody is perfect. What is important is that we acknowledge errors and strive to improve. As Keynes (or at least Paul Samuelson) once said: "When my information changes, I change my mind. What do you do?" (quoted in Clark 1978).

One concern about Summers as a candidate is that he was directly involved in the liberalization of financial markets that took place in the U.S. in the early 1990s (Hirai 2015). In an article in *The New Yorker*, Ryan Lizza summarizes how the Clinton administration initiated a series of steps toward financial deregulation that would ultimately contribute to the global financial crisis of 2008. More specifically, the Rubin-Summers Treasury Department was influential in repealing the Glass-Steagall Act, therefore ending the separation between investment banks and commercial banks that was a cornerstone of the legislation enacted during the Great Depression in 1933. Summers was also wary of regulating hedge funds and the derivatives market. However, it seems that Summers has shifted his position and now feels that some of the decisions that were taken back then might have contributed to the financial instability that the U.S. and global economy experienced in the late 2000s (Lizza 2009).

What about post-Keynesian economics?

Summers's work is generally in the fold of the mainstream. Even his secular stagnation debate can be outlined within the New Keynesian framework. The OLG models put forward by Eggertson et al. (2016) and Eggertson et al. (2018) are certainly mainstream macroeconomic models. In all of Summers's work, we find little acknowledgment of post-Keynesian contributions or any other heterodox approaches to macroeconomic theory. This is problematic insofar as it strengthens the argument that the mainstream leaves little room for alternative thinking. The post-Keynesian literature has certainly made some powerful contributions to the field of economics and the lack of acknowledgment thereof is somewhat concerning. For example, some post-Keynesian economists examined fluctuations in the functional distribution of income long before hot in the mainstream

literature. Engelbert Stockhammer (2013), Stockhammer and Stefan Ederer (2008), and Petra Dünhaupt (2013) all argued several years ago that increasing financialization has depressed wage shares in advanced economies. While the term 'financialization' is not always clearly defined, it broadly encompasses the process of rising debt levels and the increasing importance of financial institutions in the economy. Many mainstream economists still seem to dismiss the importance or even existence of the phenomenon. The post-Keynesian literature also includes several contributions on wage-led versus profit-led growth. This discussion would seem to be highly relevant in the current macroeconomic context. The period of wage stagnation in the aftermath of the global financial crisis has to some extent continued, even as unemployment rates came down, especially in the U.S. but also in the Eurozone (Onaran and Galanis 2012; Lavoie and Stockhammer 2013).

A different strand of the post-Keynesian literature touches on the topic of long-run economic stagnation (Kalecki 1965; Steindl 1976/1952; 1979). Josef Steindl already outlined in 1979 how the subsequent period was expected to have lower growth rates than the postwar economic boom: Part of the low-growth regime could be explained as a self-fulfilling prophecy, as governments by and large simply accepted the high unemployment rates of the late 1970s. Stagnation policies therefore helped to contribute to the economic slowdown (Steindl 1979). More recently, Eckhard Hein (2015) outlines how the post-Keynesian literature on stagnation does not rely on the equilibrium real interest rate to be negative. Instead, it is based on the notion that modern capitalist economies face aggregate demand constraints. It also allows for potential growth to become endogenous to actual demand-driven growth, a concept similar to what can be found in some of the more novel Schumpeterian growth models (Aghion and Howitt 1997).

But it should be noted that Summers's most recent contribution does acknowledge the work of post-Keynesian economists. Summers and Anna Stansbury (2019) reflect on a research article by Thomas Palley (2019) that discusses the natural rate assumption. Summers and Stansbury (2019) argue that further reductions in interest rates might not help alleviate the problem of insufficient aggregate demand during secular stagnation simply because the share of interest-rate-sensitive goods in GDP has decreased significantly over time. Moreover, the authors say that New Keynesian economics now should assign a smaller role to frictions and rigidities in underpinning macroeconomic fluctuations, and instead should point to a fundamental lack of aggregate demand. That is an argument that has been made by post-Keynesians and original Keynesians repeatedly; Palley (2019), for example, provides an extensive critique of the natural-rate-of-interest paradigm. Palley stresses that negative rates might not provide additional stimulus in the current macroeconomic environment, simply because investment has become unresponsive to further reductions in interest rates.

Conclusion

Summers's attempt to revive the theory of secular stagnation first outlined by Hansen in the late 1930s has turned out to be one of the most influential contributions within the field of macroeconomics in recent years. Many economists are still extremely skeptical of the proposition at large, but the debate on secular stagnation will shape the macroeconomic discourse for years to come. And it is on this ground as well as many other substantial contributions that Summers should be seriously considered for the Nobel Prize. Although it is extremely difficult to verify or falsify the secular stagnation theory in its entirety, that does not lessen Summers's contributions but rather speaks to the large frame of the theory and to the limitations of establishing scientific certitude. We cannot expect agreement among interpretations of economic phenomena, even after the fact, but we should look for debate and intellectual enrichment. Here Summers has been controversial and innovative, sometimes so much as to get him into a bit of trouble.

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