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Changing role of neoliberalism across the stages of economic development[1]

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Abstract
Neoliberal tenets will produce positive outcomes when the private sector has cool heads and maximizing profits, but not when 1) the economy is in an asset bubble, 2) the private sector is in balance sheet repair mode, or 3) investments in emerging economies offer higher returns than those made at home. All of the advanced economies are currently experiencing at least one of the last two conditions, which often cause the private sector to become a net saver in spite of extremely low interest rates. In such circumstances, the government must act as borrower and spender of last resort to keep the economy running at the macro level, even though neoliberal supply-side reforms may be still required at the micro level to encourage more investment to take place at home.

Keywords: neoliberalism, stages of economic development, pursued economies, small government, debt minimization, balance sheet recession, monetary and fiscal policy

The collapse of the housing bubble on both sides of the Atlantic in 2008 has led to prolonged economic stagnation despite zero or negative interest rates and astronomical amounts of quantitative easing, indicating that monetary easing and market forces are not sufficient to turn the economies around. The onslaught of the pandemic recession of 2020 also showed that government intervention is indispensable to maintaining public health and economic wellbeing. The advanced countries have consequently lost much of their enthusiasm for the free markets, small government, and monetary policy championed by neoliberal economists. This paper attempts to identify the conditions under which neoliberal ideas produce positive outcomes along with those that lead to unfavorable results.

Neoliberalism, a philosophy that prefers small government and free markets over big, interventionist government, had a pervasive influence on the discipline of economics for several decades leading up to 2008. Milton Friedman, a Nobel laureate and one of neoliberalism's most famous proponents, argued forcefully in favor of free and open markets. He also favored the use of central bank-led monetary policy to deal with economic fluctuations instead of state-led fiscal policy, which he equated with big, intrusive government. The trend toward neoliberalism and a greater reliance on monetary policy gained tremendous momentum in the 1970s as inflation became a serious problem across most of the developed world.

Neoliberalism inseparable from assumption of profit maximization

This paper argues that the relevance of neoliberal tenets is closely tied to at least two assumptions. The first is that the private sector is always seeking to maximize profits, an

[1] This paper draws heavily from Chapters 2, 3, 4 and 7 of the author's *The Other Half of Macroeconomics and the Fate of Globalization* (John Wiley, 2018), but has been reorganized with a focus on neoliberalism.
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assumption that also lies at the foundation of modern economics. The second is that the economy never experiences an asset bubble, that is, most people continue to maintain cool heads. If these two conditions are satisfied, neoliberal policies are likely to produce positive results, but if not, they are likely to result in highly unfortunate consequences.

For the private sector to be maximizing profits, two other conditions must also be fulfilled. The first is that it has a clean balance sheet with no debt overhang. The second is that there is a wealth of attractive investment opportunities.

The first condition is required because if a company's balance sheet is underwater and its liabilities exceed its assets, it must deleverage as quickly as possible if it hopes to survive. This is because suppliers will demand payment in cash, refusing to extend trade credit to a borrower who might seek bankruptcy protection at any time. Banks are also not allowed to lend money to – or even roll over existing loans to – bankrupt borrowers. A business in such a predicament must therefore place first priority on eliminating the debt overhang as quickly as possible. Such companies are thus forced to focus on *minimizing debt* instead of maximizing profits regardless of the level of interest rates or the existence of other business opportunities.

The iron law of macroeconomics, however, is that one person's expenditure is another's income. If someone is paying down debt or increasing savings, someone else must borrow and spend those funds to keep the national economy running. If everyone is saving and no one is borrowing, the economy will fall into a deflationary spiral.

In a textbook economy, it is assumed that the financial sector will ensure that all saved funds, including money used to repay debt, are borrowed and spent. It does so using the mechanism of interest rates, which move higher when there are too many borrowers and lower when there are too many savers. When market-driven interest rate adjustments are not enough, the central bank is expected to adjust its policy rate to help stabilize the economy by equating savings and borrowings.

The borrowed money that matters here is that which goes into the real economy and not that which is used to finance purchases of existing assets. This is because the acquisition of an existing asset represents just a change in ownership and does not add to GDP. A bank loan officer may not care whether the money it lends is spent on real investments or on purchases of existing assets as long as it is repaid in full at the end, but the distinction (for which, unfortunately, no data exist) is critical for economists seeking to understand where the economy is going.

When a company is faced with an insolvency constraint – i.e., if its balance sheet is underwater – it must eliminate its debt overhang as quickly as possible regardless of the level of interest rates. In other words, it must minimize debt and shun borrowings until assets once again equal or exceed liabilities. Firms go bankrupt or are forced to minimize debt even in the best of times due to poor business decisions they made earlier, but that seldom becomes a major problem as long as the number of deleveraging companies is small relative to the total size of the economy.

But when a nationwide debt-financed asset bubble bursts, asset prices collapse while liabilities remain at their original values, leaving millions of private-sector balance sheets underwater. Affected households and businesses are then forced to repair their balance sheets by minimizing debt even if interest rates are zero or negative. While that is the correct

and honorable thing to do for individual companies and households, the entire private sector may become a net saver if many of them do so at the same time. And if the entire private sector becomes a net saver, the resulting leakage from the income stream will plunge the economy into a deflationary spiral, otherwise known as a balance sheet recession.

In a balance sheet recession, the private sector cannot stop minimizing debt, and only the government is able to borrow and spend the surplus of private savings. By doing so, it not only stabilizes the economy but also provides income to affected households and businesses, thereby enabling them to repair their balance sheets. Government must continue functioning as borrower of last resort until the private sector finishes repairing its balance sheet and resumes borrowing, a process that can take several years, or even a decade, depending on the extent of the balance sheet damage.

Accordingly, if the private sector is minimizing debt to restore its financial health, small government, a key element of neoliberal thinking, must be abandoned in favor of a government that will actively fulfill its role as borrower and spender of last resort. The size of the excess savings problem in advanced countries today, and the reasons why fiscal policy and not monetary policy is required to address this problem, are discussed in greater detail below.

“Pursued economies” and neoliberalism do not mix

The other key assumption that must be satisfied for the private sector to maximize profit is the existence of attractive domestic investment opportunities. When such opportunities are plentiful, businesses will be eager to borrow savings generated by the household sector. But if there are no investment opportunities able to generate a risk-adjusted return well in excess of businesses’ borrowing costs, they will no longer borrow money to invest. There is also no guarantee that such opportunities will always be available as they often depend on hard-to-predict inventions and technological innovations.

Households, on the other hand, have been saving for a rainy day or old age for centuries. If borrowings by businesses for real expenditures are insufficient to absorb household savings even at very low interest rates, the savings surplus will become a leakage from the income stream, and the economy will enter a deflationary spiral like the balance sheet recession described above. The economic stagnation that characterized both East and West for centuries until the Industrial Revolution in 1760 was probably due to the dearth of borrowers stemming from the slow pace of technological innovation.

In advanced countries today, the hurdle that must be overcome for businesses to borrow and invest at home has now grown even higher because many emerging economies are offering higher returns on capital than those available at home. They are attracting investment from advanced economies with lower wages, younger and more willing workers, and an increasingly modern infrastructure. This has made it even more difficult for businesses to justify domestic investments, especially when shareholders are demanding ever higher returns on capital.

The author has labeled the stage of economic development where emerging economies offer a higher return on capital the “pursued phase”. The economy is pursued in the sense that many industries struggle to compete with lower-cost, more profitable competitors from the

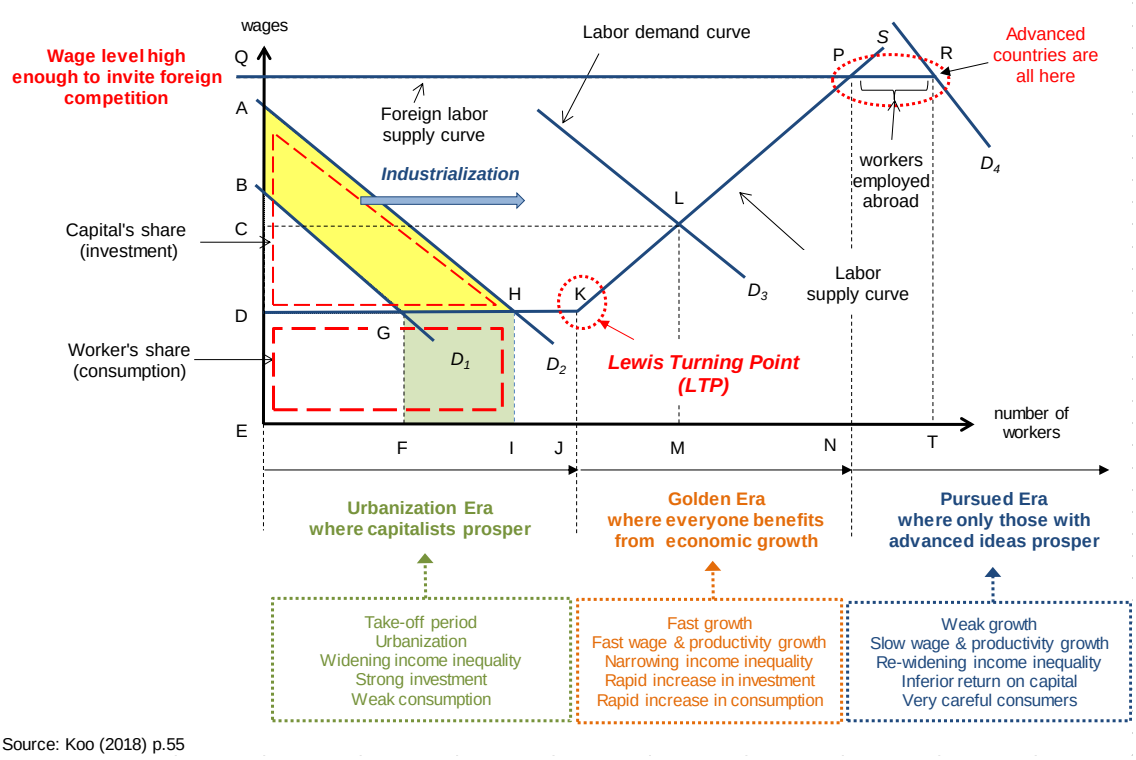
emerging world. Western countries first entered this phase when Japan started chasing them in the 1970s, and Japan first experienced this stage in the 1990s when the Asian Tigers began chasing it. The Tigers then found themselves being pursued by China in the first decade of the 21st century. Today, even China is worried about competition from countries in South and Southeast Asia. Many East European countries and Mexico are also transforming themselves into attractive destinations for foreign investment.

Exhibit 1 illustrates this from the perspective of labor supply and demand. At the beginning of industrialization the labor supply curve is almost horizontal (from 'D' to 'K' in Exhibit 1) until the economy reaches the Lewis turning point (LTP) ('K') because there is an essentially unlimited supply of rural laborers seeking to work in the cities. During this phase, a business owner can attract any number of such laborers simply by paying the going wage ('D').

As business owners continue to generate profits and expand investment, the economy eventually reaches the LTP. Once that happens, urbanization is largely complete and the total wages of labor – which had grown only linearly until then – start to increase much faster because any additional demand for labor pushes wages higher along the upward sloping labor supply curve (from 'K' to 'P').

Once the economy reaches the LTP and wages begin rising rapidly, workers start to utilize their newfound bargaining power. The frequent strikes seen in advanced economies from the 1950s to the 1970s are a reflection of this.

Exhibit 1. Three phases of industrialization/globalization



Source: Koo (2018) p.55

The explosive increase in the purchasing power of workers being paid ever-higher wages also prompts businesses to invest, for two reasons. First, they seek to increase worker productivity

so they can pay those rising wages. Second, they want to expand capacity to take advantage of workers' increased purchasing power. Both productivity- and capacity-enhancing investments increase demand for labor, which bolsters economic growth. Business demand for loans to finance these investments also expands rapidly.

This post-LTP era, where wages, consumption and investment are all increasing rapidly and people are hopeful for the future, can be called the "golden era" of economic development. The only drawback of this phase is that it is inflationary and requires a vigilant central bank to contain price increases.

But the golden age does not last forever. At some point, wages reach a level ('Q') where foreign competition can gain a foothold. For those companies that are willing to invest abroad, QR becomes the new labor supply curve. Once a country is being chased by a technologically savvy competitor, often with a younger and cheaper labor force, it has entered the "pursued phase" of economic development (starting from 'P' in Exhibit 1).

In this stage, it becomes far more challenging for businesses to find attractive investment opportunities at home – it often makes more sense for them to buy directly from the "chaser" or to invest in that country themselves. In other words, the return on capital is higher in emerging economies than at home. Even though companies investing abroad instead of at home are still maximizing profits, the macroeconomic impact of their *domestic* operations is similar to that of companies that are minimizing debt.

When Friedman and other proponents of neoliberalism were writing in the 1960s and 1970s, this problem of inferior domestic returns on capital did not exist. The advanced economies of the West were all in the midst of a golden era, and businesses in these countries were global leaders. Moreover, when macroeconomics was established as a separate academic discipline in the late 1940s, most industrialized countries were in their golden era, and most economic theory assumed – and still assumes – that the economy is in this stage of development. In other words, these theories are all assuming that firms have their factories *only* at home.

And until the end of 1970s, most developing countries in Latin America and elsewhere were pursuing the import substitution model of economic growth and were not interested in attracting foreign direct investment. It was only after Asian "Tigers" such as Taiwan and South Korea had proven the superiority of the export-led growth model that emerging economies underwent a wholesale shift and began promoting exports and welcoming foreign direct investment.

All advanced countries today are in the pursued stage (the phase at the far right of Exhibit 1). Households are saving money for a rainy day, just as they have always done, but businesses cannot find sufficient domestic investment opportunities to absorb the household sector's savings. As a result, the private sector in aggregate is often a net saver in spite of extremely low interest rates. When that happens, the government must borrow the private sector's excess savings and return those funds to the economy's income stream to keep the economy running. Here as well, the neoliberal preference for a small government must be renounced, and government must actively fulfill its role as borrower and spender of last resort.

How to run a large government in the pursued era

Budget deficits increase when a government functions as borrower and spender of last resort, as does the public debt. During the golden era, that often leads to rising interest rates, inflation, and a general misallocation of resources as government borrowings crowd out (purportedly more efficient) private investment.

While that may be the case during the golden era, the massive growth in fiscal deficits and national debt in post-1990 Japan and the post-2008 Western economies actually brought about *lower* government bond yields. Japan's public debt reached 105 percent of GDP in 1997,[3] when its ten-year government bond was yielding 1.7 percent. By the time debt had reached 230 percent of GDP in April 2013,[4] just before the Bank of Japan began its massive quantitative easing program, the ten-year yield had fallen to 0.7 percent. Similar negative correlations between public debt levels and government bond yields can be observed in most Western economies after 2008.

This happened because the private sector became a large net saver since the bubble burst in 1990 in Japan and in 2008 in the West. And they became net savers because both were in the pursued phase and were suffering from balance sheet recessions. Fund managers tasked with investing the private sector's savings surplus therefore had no choice but to lend to the government since it was the last borrower standing.

These capital inflows into government bonds are augmented by the fact that many life insurers and other institutional investors are prohibited from taking on too much principle or foreign exchange risk. Investors who have exhausted their risk limits on equity or foreign currency holdings are forced to invest in government bonds because they are the highest-rated fixed-income assets denominated in the local currency. (This is not always the case in the Eurozone, where the same currency is used by 19 different government bond markets. The resulting complications are described in Koo (2018).)

The lower bond yields brought about by this mechanism are effectively a bond market invitation for the government to serve as borrower of last resort. As bond yields fall to levels that would have been unthinkable during the golden era, the government may be able to identify public works projects with social rates of return in excess of government bond yields. Such self-financing projects will not place a burden on future taxpayers even if they result in a higher budget deficit and public debt on paper.

Instead of wasting time worrying about the sustainability of public finances, the best and brightest in a pursued economy should be looking for public works projects with social rates of return that are equal to or higher than government bond yields. Such projects will not only prop up the economy by absorbing the private sector's savings surplus, but will also provide necessary infrastructure for future generations at the lowest possible cost. This policy option was not available during the golden era, when private- and public-sector borrowers pushed interest rates higher as they competed for a limited pool of savings.

Both of the assumptions needed for the private sector to maximize profits are being violated in almost all advanced countries today, and it is no coincidence that the audience for

[3] International Monetary Fund, *World Economic Outlook Database April 2021*, cited on April 30, 2021.
[4] *op. cit.* This figure is for CY 2013.

neoliberal arguments is growing ever smaller. When Covid-19 struck in 2020, the private sector shifted its priorities further away from profit maximization and towards survival. Government actions to limit personal movement, bolster medical services, and supplement the income of affected persons all became essential in containing a public health crisis with massive negative externalities. This stood in sharp contrast to the popularity of neoliberal ideas in the golden era, when private-sector balance sheets were clean, loan demand for real investments was plentiful, and there were no public health crises of comparable magnitude.

Magnitude of the problem

Exhibit 2. Private-sector[1] savings behavior changed dramatically after 2008[5]

Average Annual Private Sector Financial Surplus(+) or Deficit(-)

(% of GDP)

	5 years to Q3 2008	**from Q4 2008 to present[4]**	latest 4 quarters
UK	-0.19	**2.02**	7.87
US	3.14	**6.53**	13.82
Canada	-0.03	**-1.30**[5]	7.23
Japan	7.50[2]	**8.34**	12.21
Korea	-1.80	**3.47**	5.75
Australia	-7.47	**1.58**	16.58
Eurozone	1.28	**4.82**	9.44

(% of GDP)

	5 years to Q3 2008	**from Q4 2008 to present[4]**	latest 4 quarters
Germany	8.43[3]	**6.44**	9.01
France	2.83	**3.75**	6.88
Italy	1.11	**3.77**	10.54
Spain	-7.93	**7.66**	12.16
Greece	0.33	**0.43**	0.62
Ireland	-4.94	**1.52**	0.43
Portugal	-3.79	**4.35**	5.81

1. private sector = household + corporate + financial sectors
2. Entered balance sheet recession in 1990
3. Entered balance sheet recession in 2000
4. Until Q4 2020. Only for Italy and Greece, until Q3 2020.
5. Except Canada

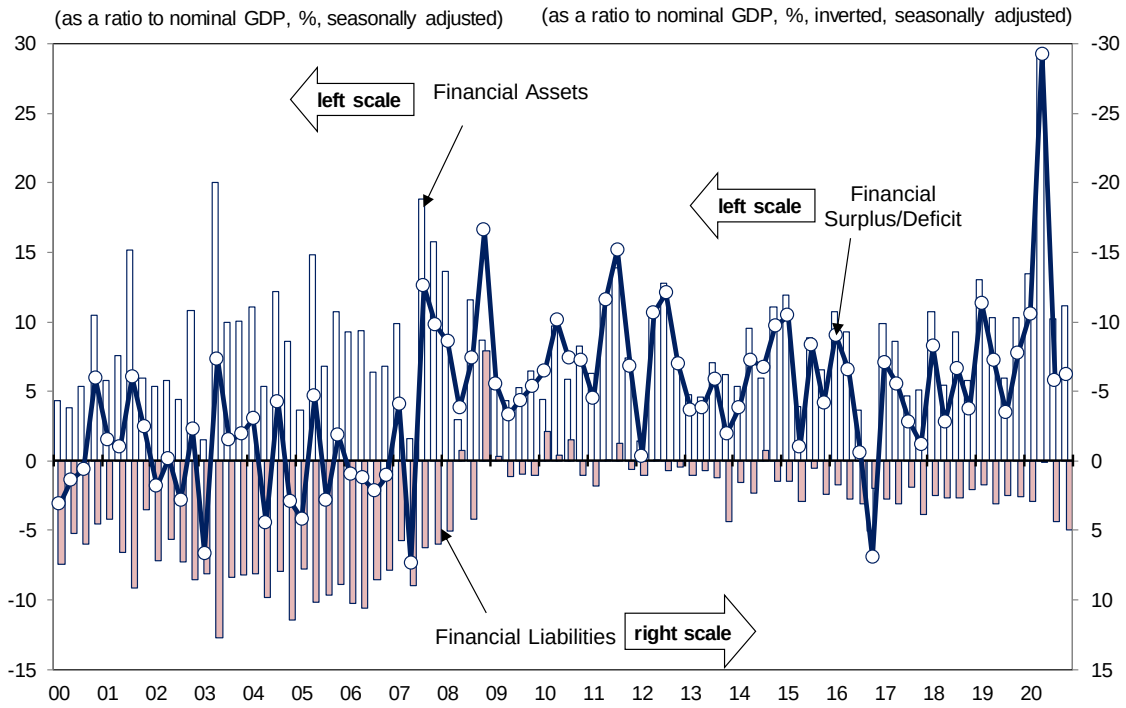
Source: Nomura Research Institute, based on these countries' flow of funds and national accounts data

Exhibit 2 shows the net financial position of the private sector in various economies as indicated by flow-of-funds data. These data divide the economy into five sectors – household, corporate, financial, government, and the rest of the world – and look at what each sector has done with its financial assets and liabilities. In Exhibit 2, the private sector is defined as the sum of the household, corporate and financial sectors. A positive number means the increase in financial assets was larger than the increase in financial liabilities, indicating the sector was running a financial surplus – i.e., was a net saver – during that period.

The middle column in Exhibit 2 shows that since the Lehman crisis of September 2008, which was triggered by the collapse of housing bubbles on both sides of the Atlantic, the private sectors of all advanced countries except Canada have been running a massive financial surplus. That this happened at a time when interest rates were at record low levels indicates

that a large portion of the private sector in these countries has not been "maximizing profits" in the traditional sense.

Exhibit 3. US households rushed to deleverage after 2008



Notes: Latest figures are for 2020 Q4.
Sources: Nomura Research Institute, based on flow of funds data from FRB and US Department of Commerce

The US private sector, for example, has been running a financial surplus averaging 6.5 percent of GDP since Q3 2008. The corresponding figures for Japan and the Eurozone are 8.3 percent and 4.8 percent, respectively. These are almost incomprehensible numbers: with zero or negative interest rates, the private sectors of these economies should all be borrowing, not saving. The fact that these figures all jumped after Lehman Brothers collapsed in Q3 2008, triggering the global financial crisis (GFC), suggests the financial surpluses were driven primarily by balance sheet concerns following the housing bubble collapse. This is also consistent with the fact that Canada's private sector continues to run a financial deficit and is a net borrower: it is the one country whose housing bubble has yet to burst.

The shift to a financial surplus is more pronounced in the household sectors of those economies because the bubble was in housing. Exhibit 3 shows US household-sector financial assets and liabilities separately. In this chart, a white bar stretching above the zero centerline means the household sector increased its financial assets, i.e., added to its savings. A white bar below zero means the household sector reduced its financial assets, i.e., drew down its savings. Similarly, a shaded bar below zero means the sector took on more financial liabilities, i.e., expanded its borrowings, while a shaded bar above zero means it trimmed its financial liabilities, i.e., paid down debt. The net position of the private sector is shown by the broken line.

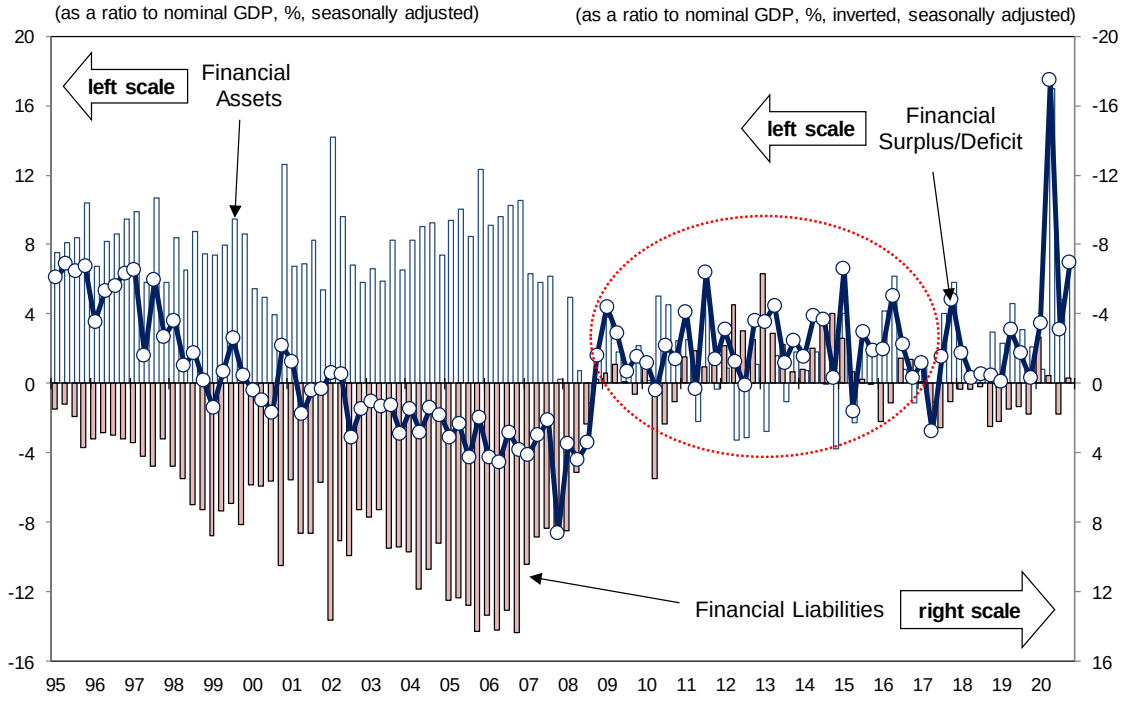
Economics textbooks tell us that the household sector saves and the corporate sector borrows. But the US household sector was often a large net borrower during the bubble, shown by the broken line slipping below zero in Exhibit 3. In effect, the entire sector was leveraging up to speculate in the housing market.

Once the bubble burst, the sector suddenly became a huge net saver even though interest rates had fallen to zero. The fact that the shaded bars spent a number of quarters above zero means the sector was not only increasing savings but also paying down debt to restore its financial health. In other words, US households were minimizing debt at a time of zero interest rates.

Although some US households have recently resumed borrowing, the sector as a whole continues to run a financial surplus. That the US household sector is not borrowing more in spite of zero interest rates shows that conditions have not fully returned to "normal".

Spain also experienced a large housing bubble. The Spanish household sector, shown in Exhibit 4, behaved very conservatively until the bubble but then went on a borrowing binge. When the bubble burst in 2007, not only did households stop borrowing despite zero or negative interest rates, but the whole sector began paying down debt (shaded bars above the centerline) in a trend that continued for a full eight years.

Exhibit 4. Spanish household sector was net borrower during bubble, but is large net saver now



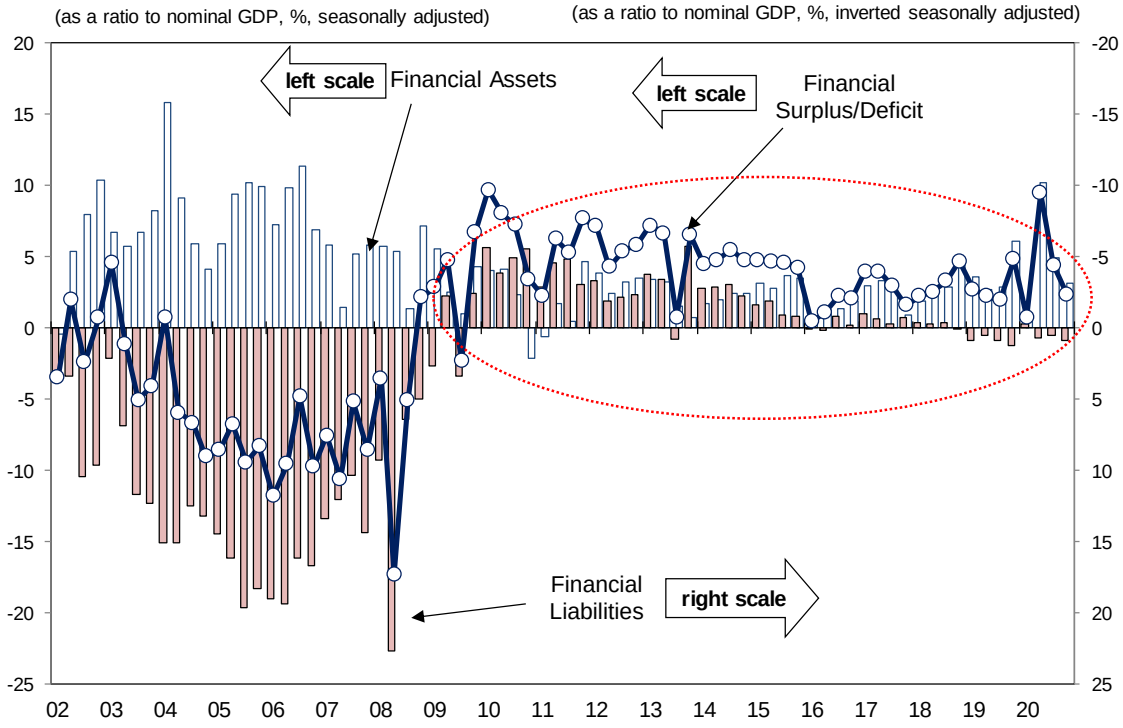
Notes: Seasonal adjustments by Nomura Research Institute. Latest figures are for 2020 Q4.
Sources: Nomura Research Institute, based on flow of funds data from Banco de España and National Statistics Institute, Spain

Exhibit 5 shows that the household sector of Ireland, which had a particularly large housing bubble, underwent even more dramatic changes. Starting from a very conservative position around 2000, Irish households went deeply into debt during the bubble. After the bubble

collapsed, borrowing stopped completely and debt repayment (shaded bars above the centerline) continued almost every quarter for over ten years, meaning that Irish households were minimizing debt for more than a decade in spite of zero or negative interest rates.

In such cases, when the private sector is minimizing debt despite zero or negative interest rates, the government must serve as borrower of last resort to keep the economy running. In the US, policymakers such as Ben Bernanke at the Federal Reserve and Lawrence Summers at the National Economic Commission in the White House realized early on that the country was in a balance sheet recession and pushed for fiscal stimulus to prop up the economy. Even though they could not do much after the Republicans took control of the House of Representatives in 2010, they succeeded in fending off arguments for austerity by warning of the dangers of falling off the "fiscal cliff".

Exhibit 5. Irish household sector was net borrower during bubble, but is big net saver now



Notes: Seasonal adjustments by Nomura Research Institute. Latest figures are for 2020 Q4.
Sources: Nomura Research Institute, based on flow of funds data from ECB and Central Statistics Office, Ireland

Unfortunately, no such understanding emerged in the Eurozone, where neoliberal economists and policy makers pushed for austerity. The Maastricht Treaty that created the euro also made no provision for balance sheet recessions and restricted budget deficits to 3 percent of GDP regardless of the amount of private-sector savings. The subsequent Fiscal Compact adopted in 2012 made it even more difficult for member countries to use fiscal stimulus until the pandemic recession hit in 2020.

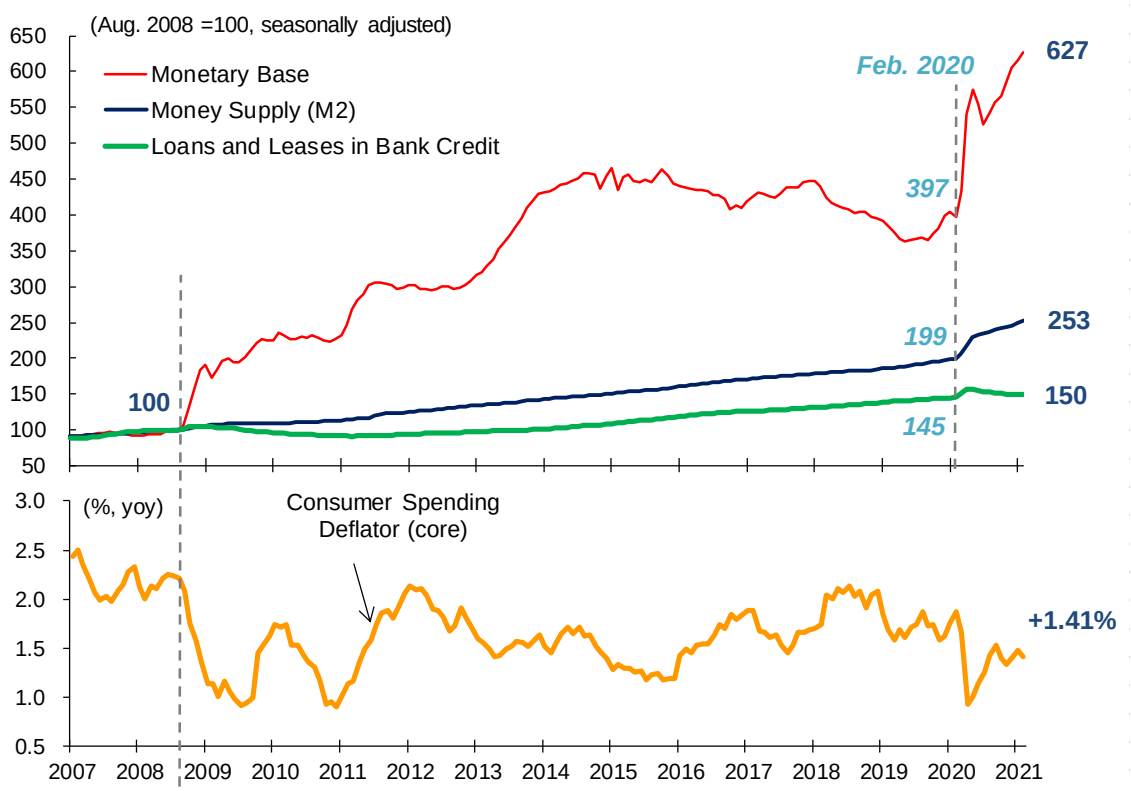
After 2008, when the Spanish private sector was saving an average of 7.7 percent of GDP (Exhibit 2), the Spanish government was allowed to borrow only 3 percent of GDP, and the remaining 4.7 percent leaked out of the income stream. The result was a horrendous deflationary spiral that lifted Spain's unemployment rate to 26 percent. This offers an example

of how the neoliberal approach can devastate an economy when the private sector is minimizing debt instead of maximizing profits.

Monetary policy first casualty when borrowers disappear

When private sector borrowers absent themselves because of either balance sheet problems or a lack of attractive domestic investment opportunities, monetary policy – neoliberal economists' favorite policy option – becomes largely ineffective. This is because there is little the monetary authorities can do to address the two borrower-side issues noted above with lower interest rates, forward guidance, inflation targets, or quantitative easing. This was amply demonstrated after 2008 when all the major central banks failed to meet their inflation targets despite vast amounts of quantitative easing and zero or even negative interest rates.

Exhibit 6. Drastic liquidity injections resulted in minimal increases in money supply and credit (I): US



Note: Commercial bank loans and leases, adjustments for discontinuities made by Nomura Research Institute.
Sources: Federal Reserve Board; US Department of Commerce

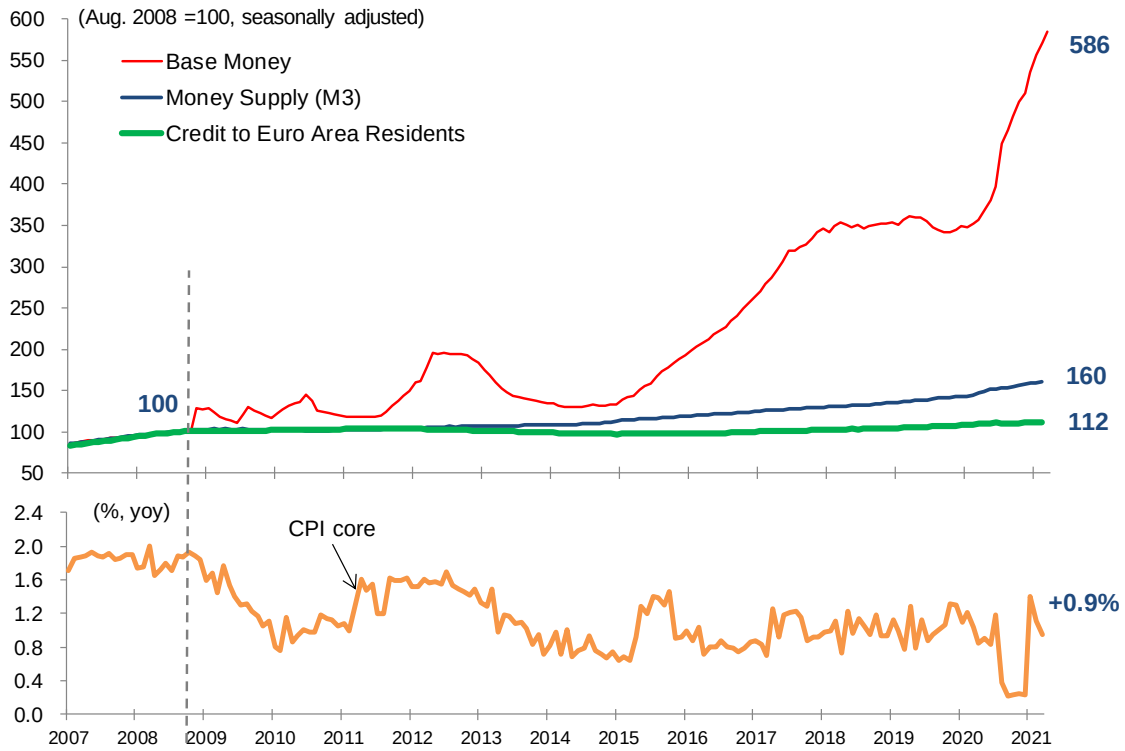
For monetary accommodation to stimulate GDP, someone must be willing to borrow money from financial institutions and spend or invest it in the real economy. But in all of these economies, borrowers hardly responded to the monetary stimulus. Exhibits 6 to 10 show that the close relationship observed prior to 2008 between central-bank-supplied liquidity (the monetary base) and the money supply (M2) and private-sector credit (=borrowings) broke down completely after the bubble burst and private sectors began minimizing debt.

These graphs make it clear that the monetary base, money supply, and private-sector credit were closely correlated in textbook fashion prior to 2008. In this world, a 10-percent increase in central bank liquidity would increase both the money supply and credit by 10 percent because there were enough private-sector borrowers to borrow all the funds supplied by the central bank.

But after the bubble burst forced the private sector to repair its damaged balance sheet by minimizing debt, no amount of central bank accommodation was able to increase private-sector borrowings. The US Federal Reserve expanded the monetary base by 297 percent from the time that Lehman Brothers failed until just before the pandemic struck. But the money supply grew by only 99 percent – and credit by only 45 percent – during that twelve-year period. A 45-percent increase in private-sector credit over twelve years represents an insignificant average annual increase of just 3.3 percent.

A central bank can always add liquidity to the banking system by purchasing assets from financial institutions. But for that liquidity to enter the real economy, banks must lend out those funds: they cannot give them away because the funds are ultimately owned by depositors. A 45-percent increase in lending since 2008 means new money entering the real economy from the financial sector has grown only 45 percent. In other words, most of the 297 percent increase in liquidity supplied by the central bank remains trapped in the financial sector due to a lack of borrowers. Similar outcomes have been observed in all the post-bubble economies, including the Eurozone (Exhibit 7) and the UK (Exhibit 8).

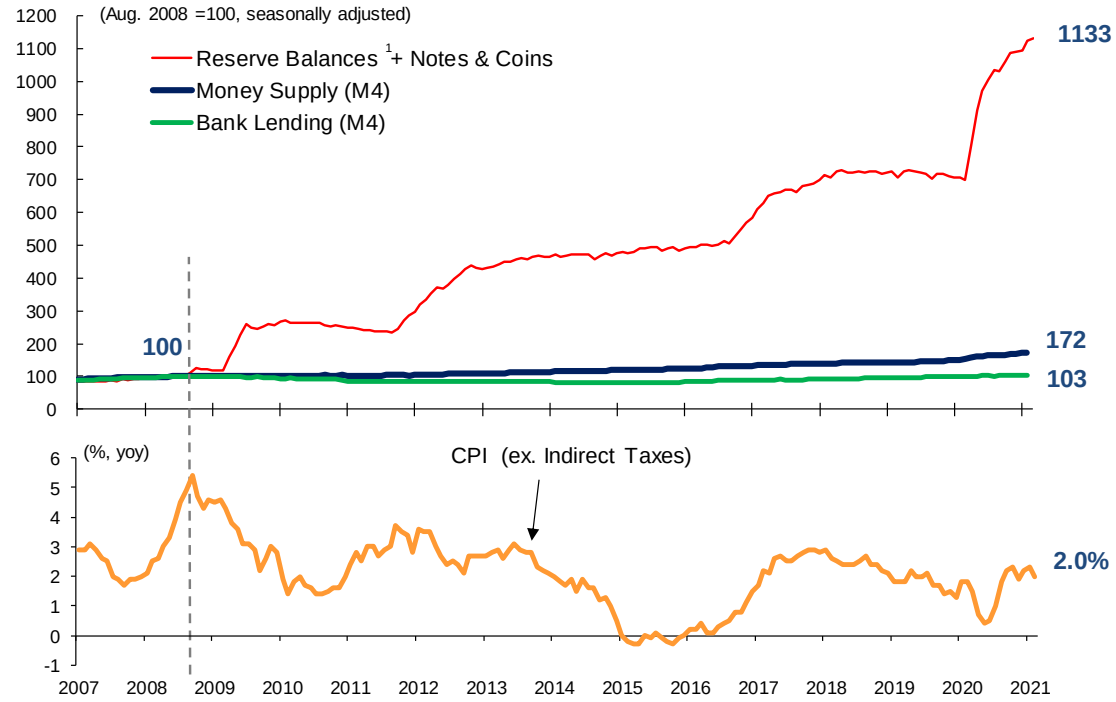
Exhibit 7. Drastic liquidity injections resulted in minimal increases in money supply and credit (II): Eurozone



Note: Base money's figures are seasonally adjusted by Nomura Research Institute.
Sources: European Central Bank; Eurostat

This explains why inflation and growth rates in the advanced economies have all refused to respond to zero interest rates and massive injections of central bank liquidity since 2008. The central banks consistently failed to meet their inflation targets because an absence of borrowers prevented the actual money circulating in the real economy from increasing. Milton Friedman and his disciples have argued that inflation is always and everywhere a monetary phenomenon, and that a central bank in charge of monetary policy can therefore create inflation at will. If that were the case, the 297-percent growth in the monetary base should have led to similar increases in the money supply and credit, driving a corresponding surge in inflation. But nothing of the sort happened after 2008 because the private sector began minimizing debt.

Exhibit 8. Drastic liquidity injections resulted in minimal increases in money supply and credit (III): UK



Notes: 1. Reserve balances data are seasonally unadjusted.
2. Money supply and bank lending data exclude intermediate financial institutions.
Sources: Bank of England; Office for National Statistics, UK

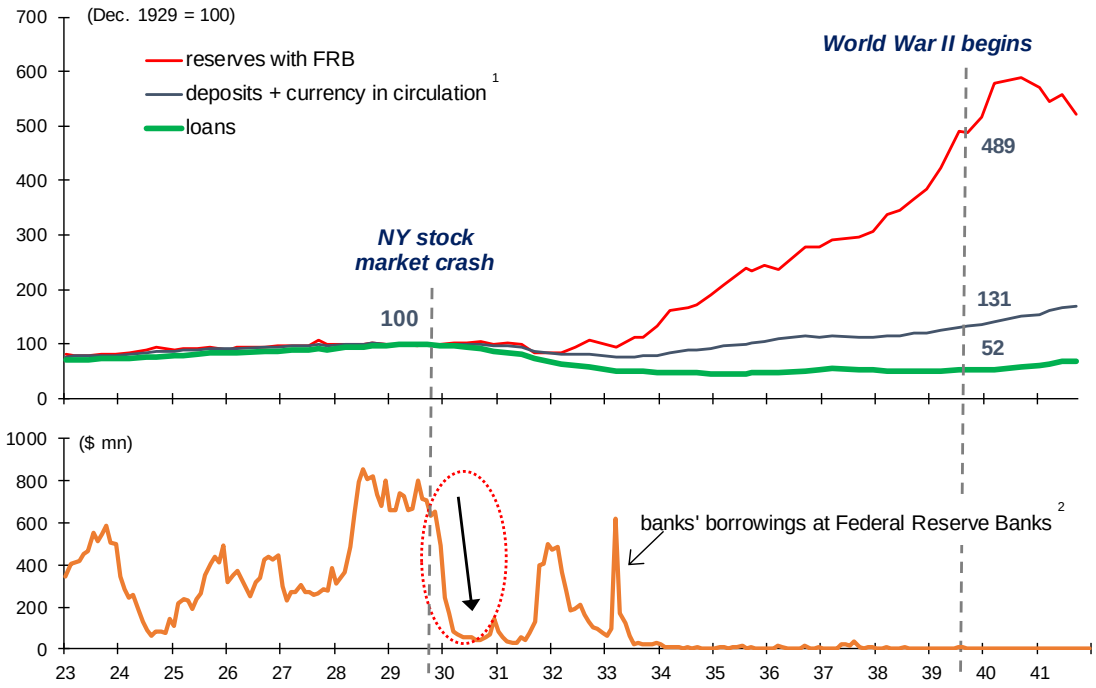
Great Depression as balance sheet recession

Not surprisingly, a similar decoupling of monetary aggregates was observed in the US after the Great Crash of 1929, which led to the Great Depression, and in Japan after its asset bubble burst in 1990. Exhibit 9 illustrates the monetary base, the money supply, and credit supplied to the private sector before and after the October 1929 stock market crash. It shows the three were moving in tandem until the crash, just as textbooks predict, but then decoupled in exactly the same way as they did in the post-2008 economies. The credit line, representing lending to the private sector, fell as much as 54.7 percent from its 1929 peak as US businesses and households sought to pay down debt and repair their battered balance sheets.

The money supply, which consists mainly of bank deposits, contracted by as much as 33 percent during the first three years as people withdrew money from their bank accounts to pay down loans, which declined by the above mentioned 54.7 percent. When the private sector is maximizing profits and there is an abundance of private-sector borrowers, any money received by banks as repayment for existing loans will quickly be lent out again, leaving total deposits and credit in the banking system unchanged. But when the entire private sector becomes a net saver or re-payer of debt, both credit and the money supply contract.

Milton Friedman and other monetary policy "believers" argued that the Great Depression in the 1930s was so severe because the Fed did not expand the supply of reserves quickly enough following the New York stock market crash (unlike its actions following the Lehman failure, shown in Exhibit 6). However, it should be noted that reserves consist of both funds supplied by the central bank and funds borrowed by commercial banks from the central bank. A close look at the borrowed reserve data at the bottom of Exhibit 9 indicates that US commercial banks were *paying back* huge amounts of borrowed reserves to the Fed immediately after the stock market crash. Prior to the crash, they were borrowing heavily from the Fed because their own reserves were insufficient to meet private-sector demand for loans during the bubble.

Exhibit 9. Same decoupling of monetary aggregates observed in 1930s



Notes: 1. deposits = demand deposits adjusted + other time deposits
2. Only this data series is based on member banks in 101 leading cities. All other data series are for all membr banks.
Source: Nomura Research Institute, based on the data from Board of Governors of the Federal Reserve System (1976), *Banking and Monetary Statistics 1914-1941*, pp.72-75 pp.138-163 and pp.409-413

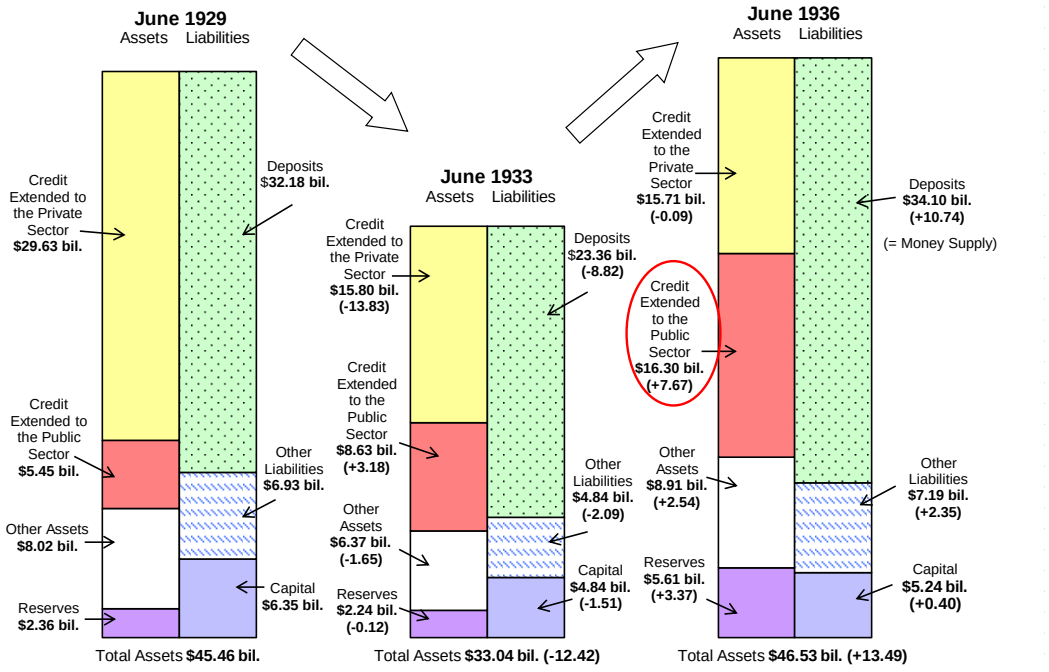
After the stock market collapse, bank borrowings from the Fed plunged from $801 million to just $43 million between June 1929 and March 1930, a decline of 95 percent (circled area in lower graph). This was most likely in response to the post-crash collapse in loan demand,

which left banks with no reason to hold borrowed reserves. With bankers so eager to return borrowed reserves, there was no reason for the Fed to supply *more* reserves.

Proponents of monetary policy also argued that the post-1933 US recovery was made possible not by President Roosevelt's New Deal policies but rather by the Fed's monetary easing, which started in the same year. They pointed out that while the deficit-to-GDP ratio did not grow substantially after 1933, the money supply and bank reserves did. However, as noted by the author in his book *The Holy Grail of Macroeconomics* (2008), the money supply is a liability of the banking system and can only grow if banks' assets also increase.[5] A look at the asset side of US banks' post-1933 balance sheets (Exhibit 10) clearly indicates that it was only lending to the government that expanded from 1933 to 36 (the circled entry in Exhibit 10): the lending to the private sector did not increase at all. And that was a direct result of President Roosevelt's New Deal policies, which finally allowed the US government to act as borrower of last resort.

Lending to the private sector actually continued to shrink until 1936. The gap between money supply growth (=deposits) and private-sector credit growth in Exhibit 9 was made up by growth in lending to the government. The correct interpretation of the post-1933 US recovery, therefore, is that government borrowing and spending driven by the New Deal boosted *both* GDP and the money supply. The US money supply expanded after 1933 because government presented itself as borrower of last resort. With government willing to borrow the excess savings of the private sector, the economy was finally able to emerge from its deflationary spiral.

Exhibit 10. Reflationists failed to notice that government's new deal borrowings enabled post-1933 growth in US money supply



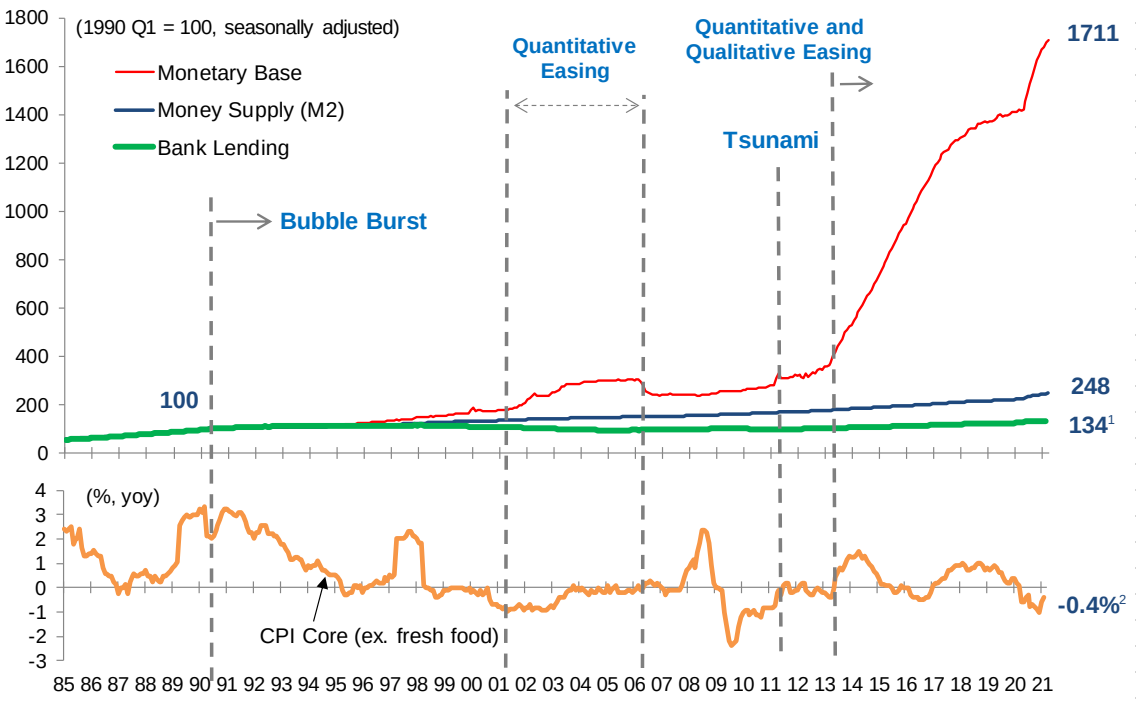
Source: From Richard C. Koo, *The Holy Grail of Macroeconomics: Lessons from Japans Great Recession* (John Wiley, 2008), p.112, based on data from The Board of Governors of the Federal Reserve System (1976) *Banking and Monetary Statistics 1914-1941* pp.72-78

[5] Chapter 3 in Koo (2008) discusses this mechanism in detail.

The same decoupling of monetary aggregates was also observed in Japan after its asset bubble burst in 1990, as shown in Exhibit 11. Here, too, the Bank of Japan's massive injections of reserves to the banking system, especially after 2013, failed to increase lending to the private sector or boost inflation (shown at the bottom of Exhibit 11) because there were no borrowers.

Central banks have continued to miss their inflation targets since 2008 because the private sectors have impaired balance sheets and are minimizing debt. These economies are also in the pursued phase, when there is relatively little loan demand for real investments. The insistences of several central bank governors that additional monetary easing will enable them to meet their inflation targets suggest they do not understand why their models and forecasts have failed. They have failed because they are based on the assumption of the golden era: that the private sector is always maximizing profits.

Exhibit 11. Drastic liquidity injections produced minimal increases in money supply and credit (IV): Japan



Notes: 1. Figures for bank lending are seasonally adjusted by Nomura Research Institute.
2. Excluding the impact of consumption tax.
Source: Bank of Japan

Neoliberal reliance on monetary policy in pursued economies leads to bubbles

The other condition required for neoliberal tenets to be effective – that the economy is not in the throes of an asset bubble – should require no additional elaboration. What is new and worrisome, however, is that an economy is more prone to bubbles during the pursued era than during the golden era. The dotcom bubble of 2000 was followed only a few years later by massive housing bubbles on both sides of the Atlantic. Today, asset prices are increasing rapidly even in the midst of a pandemic. This tendency for bubbles to form in pursued economies appears to be aided by the neoliberal reliance on monetary policy.

Fed Chair Jerome Powell said in a pre-pandemic speech[6] on June 20, 2018 that the last two recessions in the US were caused by financial imbalances and not by central bank tightening aimed at stamping out inflation. The emergence of these imbalances has much to do with the fact that the US and all other developed economies are now in the pursued era, yet the policy responses in these countries are still characterized by a golden-era reliance on monetary policy.

Once companies start investing overseas and the economy enters a pursued phase, their need to borrow household savings drops sharply. That creates difficulties for the fund managers and financial institution loan officers who used to lend household savings to businesses. With businesses no longer borrowing for capacity- or productivity- increasing investments, fund managers must instead invest in *existing* assets, which is conducive to the formation of asset bubbles.

Moreover, when borrowed funds are used to acquire existing assets the only change that results is a transfer of ownership: the funds themselves remain in the financial markets. For example, if one investor purchases equities from another, the seller must then invest the proceeds in stocks or other assets. The fact that the money stays in the financial sector contributes to the practice of "flipping" assets observed during bubbles. In contrast, funds lent to businesses for productivity- or capacity-enhancing investment are typically used to buy plant or equipment, causing money to flow from the financial sector to the real economy.

Interest rates also fall sharply once loan demand from businesses shrinks significantly. The problem is that fund managers are still expected to produce the kinds of high returns seen during the golden era even though such returns are no longer possible in a pursued economy. That puts pressure on the managers to participate in asset bubbles in search of high returns. Even those who are aware they are in a bubble may still join the party if they are confident they can leave before the music stops playing. If everybody thinks that way, of course, no one will be able to get out when the crash comes because everyone will be a seller of assets and no one will be a buyer.

In pre-LTV eras, when the rich were the only players in financial markets, an absence of borrowers typically prompted wealthy lenders to stop lending altogether instead of accepting interest rates too low to be justified on a risk-adjusted basis. This is what Keynes called the liquidity preference and is probably why historical records do not show interest rates falling to extremes even when economic growth was stagnant – lending ceased long before rates could fall that far.

In the modern world, however, salaried fund managers are under pressure from their employers to produce a return and do not have the option of sitting on cash. That was not a problem during the golden era, when there was strong demand for funds from businesses and interest rates were high. Indeed, the golden era was a lender's market.

In the pursued era, however, corporate demand for funds shrinks while households continue to save for an uncertain future, pushing interest rates down to very low levels. But many of today's fund managers, employed by financial institutions, are under pressure to produce

[6] Powell, Jerome H., "Monetary Policy at a Time of Uncertainty and Tight Labor Markets," June 20, 2018, at "Price and Wage-Setting in Advanced Economies," an ECB Forum on Central Banking, Sintra, Portugal. https://www.federalreserve.gov/newsevents/speech/powell20180620a.htm.

returns at all times, unlike the wealthy lenders in the pre-modern era who could simply sit on cash. Furthermore, many are now competing against market indexes. In such a world, any fund manager who outperforms the index will be praised even if he or she has a low absolute return. Thus, the concept of risk-adjusted return is often pushed aside in order to beat the index in a low interest rate environment.

Central banks often part of the problem, not part of the solution

Central banks' willingness to espouse negative interest rates also reduces the attention investors pay on risk adjusted returns. One wonders how it is possible for a central bank that supervises commercial banks and demands they charge appropriate risk-adjusted interest rates on loans to embrace negative interest rates, which can never be justified on a risk-adjusted basis.

Central banks may also contribute to this problem in pursued economies by responding to economic weakness with lower interest rates and additional liquidity. Such monetary easing policies effectively increase the number of lenders in the economy. But when the economy is suffering from a lack of borrowers and interest rates are already very low, those newly added funds have no place to go. All they do is push prices of existing assets higher through the portfolio rebalancing effect, which is a prelude to bubbles.

This effect is augmented when central banks attempt to achieve a 2-percent inflation target in pursued economies, which are fundamentally disinflationary. With no borrowers in the real economy, central bank liquidity has no way of leaving the financial sector, which means neither inflation nor GDP growth will increase. But the lack of results convinces central bankers that they have not done enough and prompts them to do even more QE, thereby increasing the funds that fund managers must invest in existing assets and contributing to the growth of bubbles.

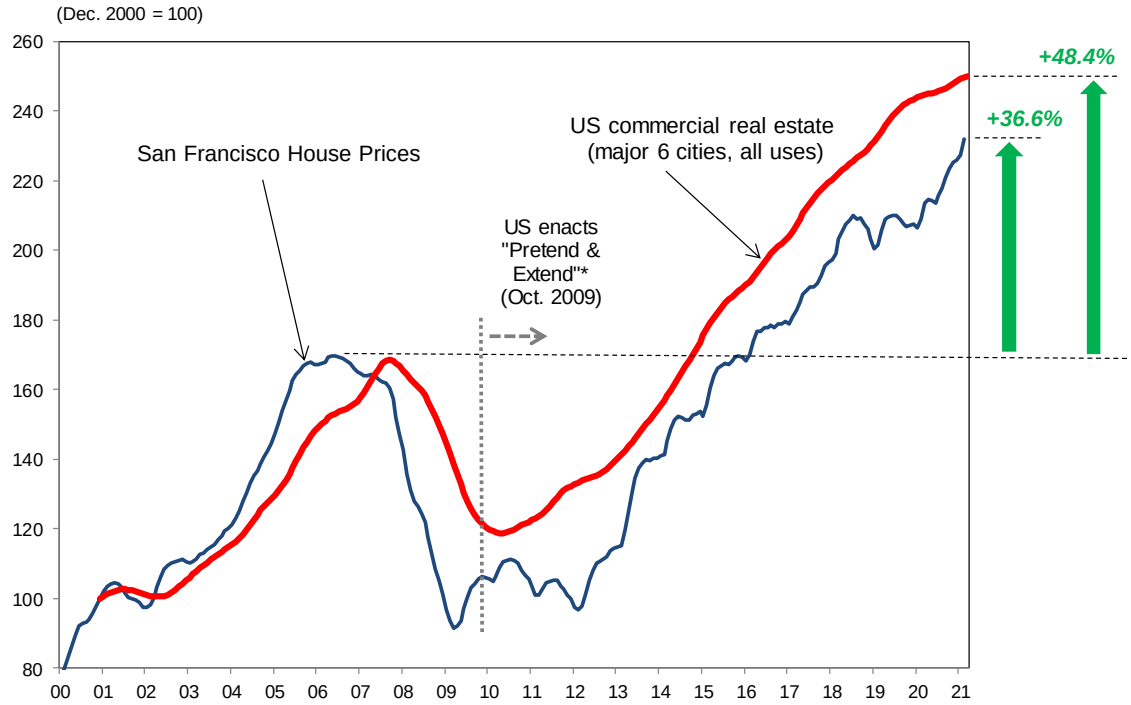
The above factors suggest that bubbles are more likely to form in a pursued economy, which is a borrower's market, than in the golden era. As of this writing, share prices are at all-time highs in many countries despite the pandemic, and in the US both commercial real estate and some residential real estate markets have far exceeded their previous bubble-era highs (Exhibit 12). The point is that an excessive reliance on monetary policy to create inflation in a pursued economy will not create inflation, but it *will* exacerbate existing financial imbalances by creating unproductive cycles of bubbles and balance sheet recessions.

When an economy is in the pursued phase or is facing a balance sheet recession, the correct policy response is for the government to borrow and spend the private savings surplus on infrastructure projects, thereby supporting the economy without QE. Since fund managers can lend to the government, it obviates the need for them to invest in bubbles. It also reduces the likelihood of the private sector squandering its savings in asset bubbles.

The main policy challenge when Milton Friedman was writing in the golden era was containing inflation, and his preference for monetary policy and disdain for fiscal policy were warranted. But advanced countries today are all in the pursued stage of development and are suffering from balance sheet recessions. At such times, the key policy challenge is what to do with the emergence of private-sector savings surplus in spite of historically low interest rates. Here the government must function as borrower and spender of last resort using fiscal policy.

Overreliance on monetary policy in this era will not help the economy and will in fact exacerbate financial imbalances by triggering undesirable cycles of bubbles and balance sheet recessions. In the pursued economy, central bank cannot be part of the solution, but it can well become part of the problem.

Exhibit 12. Some asset prices already far above previous bubble highs



Note*: "Policy Statement on Prudent Commercial Real Estate Loan Workouts" (October 30, 2009)
Sources: Nomura Research Institute, based on the data from Real Capital Analytics; "REAL CPPI," and S&P Dow Jones Indices; "S&P CoreLogic Case-Shiller Home Price Indices"

Pursued economies still need neoliberal ideas at micro level

This is not to say that neoliberal ideas are totally irrelevant for pursued economies. Because slow growth in the pursued era is the result of inferior domestic returns on capital, policymakers need to encourage businesses to invest at home by adopting policies that boost the return on capital – i.e., lowering taxes and deregulating the economy, as dictated by neoliberal tenets. Pursued economies must also keep their labor markets flexible enough to allow businesses to take evasive action to fend off pursuers.

President Ronald Reagan was the first head of state to take the challenges of a pursued economy seriously (the US was being pursued by Japan at that time). He lowered taxes, deregulated the economy, and took strong action against labor unions. Labor unions at the time were still trying to extend gains made during the golden era, not realizing that the US had already entered the pursued stage of development when the Japanese arrived. Reagan's actions, symbolized by his decision to fire the civil air-traffic controllers who staged an illegal strike and replace them with military controllers, finally broke the unions' back and made it easier for businesses to respond to competition from foreign rivals. These neoliberal supply-side reforms allowed the US to restructure its economy and regain its growth momentum after struggling for nearly two decades to fend off the Japanese.

In contrast, both Japan and Europe have been slow to implement supply-side reforms such as lower taxes, deregulation, and greater labor market flexibility. This is one reason why the US is doing comparatively well while they continue to struggle with slow growth.

At the macroeconomic level, governments in the pursued economies must be allowed to operate as borrowers of last resort, but at the microeconomic level they need to pursue a neoliberal agenda to make their economies more attractive for businesses. If structural reforms succeed in attracting domestic investment, the private-sector savings surplus may eventually disappear, at which point the government will no longer need to serve as borrower of last resort.

The problem is that it can take a decade or more for microeconomic structural reforms to make a difference at the macroeconomic level. For example, the tax cuts and deregulation measures implemented by President Reagan in the early 1980s took nearly fifteen years to bear fruit, and it was President Bill Clinton who reaped the benefits. The US economy continued to perform poorly in the meantime, which is why President George H.W. Bush, whose foreign policy achievements included ending the Soviet Union and victory in the Cold War and the first Gulf War, lost his re-election campaign to a young governor from Arkansas whose only election slogan was “It’s the economy, stupid!”

In both post-1990 Japan and post-2008 Europe, it has been argued that structural reform, not fiscal stimulus, is needed to turn the economy around. But these economies have been suffering from severe balance sheet recessions requiring immediate fiscal stimulus, not structural reforms that take 15 years or more to produce results. Not surprisingly, they have been stagnant for years, demonstrating that micro-level neoliberal reforms are no substitute for macro-level fiscal stimulus. The government must also act as borrower of last resort until the private sector has resumed borrowing and investing at home.

During the golden era, small government and freer markets are often identified with conservative politicians, while bigger and more involved government is associated with progressives. In the pursued era, a larger and more involved government is needed at the macro level to ensure that all saved funds are borrowed and spent. But at the micro-level, freer markets with lower taxes are needed to encourage domestic investment. A flexible labor market is also required to allow businesses to take evasive action to defend themselves from foreign pursuers

This means new political groupings will have to emerge if pursued countries are to be governed effectively. If the same two parties are to continue governing the US in this new era, the Republicans will need to jettison their opposition to the government serving as borrower of last resort, while the Democrats must distance themselves from the labor market rigidities introduced by unions to enable more investment and job creation at home. These challenges are entirely new to the pursued era.

Three problems with Milton Friedman’s call for free markets

When Milton Friedman visited Japan in the 1950s and spoke to economist Kazushi Nagasu, he had strong things to say about the plight of his people: “I am a Jew…I do not think I need to tell you what kind of horrible deaths Jewish people had to face. The real drive behind my argument for free markets is the bloodied cries of Jewish people who perished under Hitler’s

and Stalin's regimes, and their message is that the best way to happiness is to have a mechanism that brings people together where states, races and political systems have no influence."[7]

Although many would agree with Friedman that the free market is the necessary mechanism, he is wrong on at least three counts. The first is his assumption that markets driven by a profit-maximizing private sector can never go wrong. Every so often the private sector loses its head in a bubble, something observed most recently in the late-1990s dotcom bubble and the housing boom that followed a few years later. During a bubble, the private sector engages in a frenzy of speculation and ends up misallocating trillions of dollars of resources, something no government could ever hope to match. Markets work well when businesses and households have cool heads, but not when a bubble has formed.

Unfortunately, the pursued era is more conducive to the formation of asset bubbles than the golden era, when Friedman was formulating his theories. This is because a shortage of borrowers in the real sectors forces fund managers entrusted with the private sector's excess savings to invest in existing assets such as stocks and real estate. With the low interest rates typical of the pursued era and central banks trying to hit their inflation targets with ever larger injections of liquidity, fund managers must take more risks to generate adequate returns.

When the bubble eventually bursts, the private sector comes to its senses and realizes it must work to restore its financial health by shifting its priorities from maximizing profits to minimizing debt. Even though that is the right thing to do at the individual level, when pursued collectively it causes the entire private sector to begin running a financial surplus and tip the economy into a devastating balance sheet recession.

This is where Friedman made his second mistake. He argued that monetary easing – whereby the central bank supplies liquidity and lowers interest rates – should be the primary remedy for recessions. This was the right answer when he was developing his theories in the 1950s and 1960s, as the US was in the golden era and businesses had ample domestic investment opportunities. But the effectiveness of monetary policy is drastically reduced once the economy enters the pursued phase, which is characterized by dwindling borrowers. The problem gets worse when the economy enters a balance sheet recession with its private sector minimizing debt. Monetary policy stops working because the absence of borrowers means funds supplied by the central bank to the financial sector have no way of entering the real economy even if interest rates are lowered to zero.

Friedman's third mistake was to oppose fiscal stimulus based on a preference for small government. To him, fiscal stimulus represented big, intrusive government. But in a balance sheet recession, the government *must* use fiscal stimulus and serve as borrower and spender of last resort. There is no other way to keep the economy out of a deflationary spiral and give the private sector the income it needs to pay down debt and rebuild its balance sheet. The same applies when the economy is in a pursued phase with insufficient domestic investment opportunities.

[7] Uchihashi, Katsuto (2009), *Shinpan Akumu-no Saikuru: Neo-riberarizumu Junkan ("The cycle of nightmares: the recurrence of neoliberalism")*, updated version, in Japanese, Bunshun Bunko, Japan, pp. 88-89.

Friedman's overriding emphasis on the supremacy of markets, monetary policy, and small government allows no room for government to act as borrower of last resort. But it was the inability of Germany's Brüning government – due in no small part to pressure from the Allied Command – to use fiscal stimulus to prevent the post-1929 economic collapse that allowed the country's unemployment rate to reach 28 percent and paved the way for Adolf Hitler's rise to power in 1933.

For better or for worse, Hitler implemented the speedy, sufficient and sustained fiscal stimulus needed to tackle the nation's balance sheet recession – the construction of the autobahn expressway system was among the many public works projects undertaken by the Nazi government. By 1938, just five years later, Germany's unemployment rate had fallen to 2% when the US unemployment was 19%.

This was viewed as a great success by people both inside and outside Germany. In contrast, the democracies of the United States, France and the UK continued to suffer from high unemployment as policymakers were unable to think outside the box of balanced budgets and small government. The failure of the French, UK and US governments to act as borrowers of last resort not only enhanced Hitler's reputation, but also prevented them from presenting a credible deterrent to Germany's rapidly expanding military.

To prevent the possibility of another Holocaust, it is essential that the public be taught what a balance sheet recession is and how to fight it with fiscal stimulus. People must also realize that neoliberal ideas that were relevant in the golden era are often counter-productive in the pursued era. Although pursued economies need to reform themselves along neoliberal lines at the micro-level to encourage more domestic investment, there is simply no room for neoliberalism at the macro level when the economy is in the pursued phase or is suffering from a balance sheet recession.

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