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A CENTURY OF UNRIVALLED PROSPERITY

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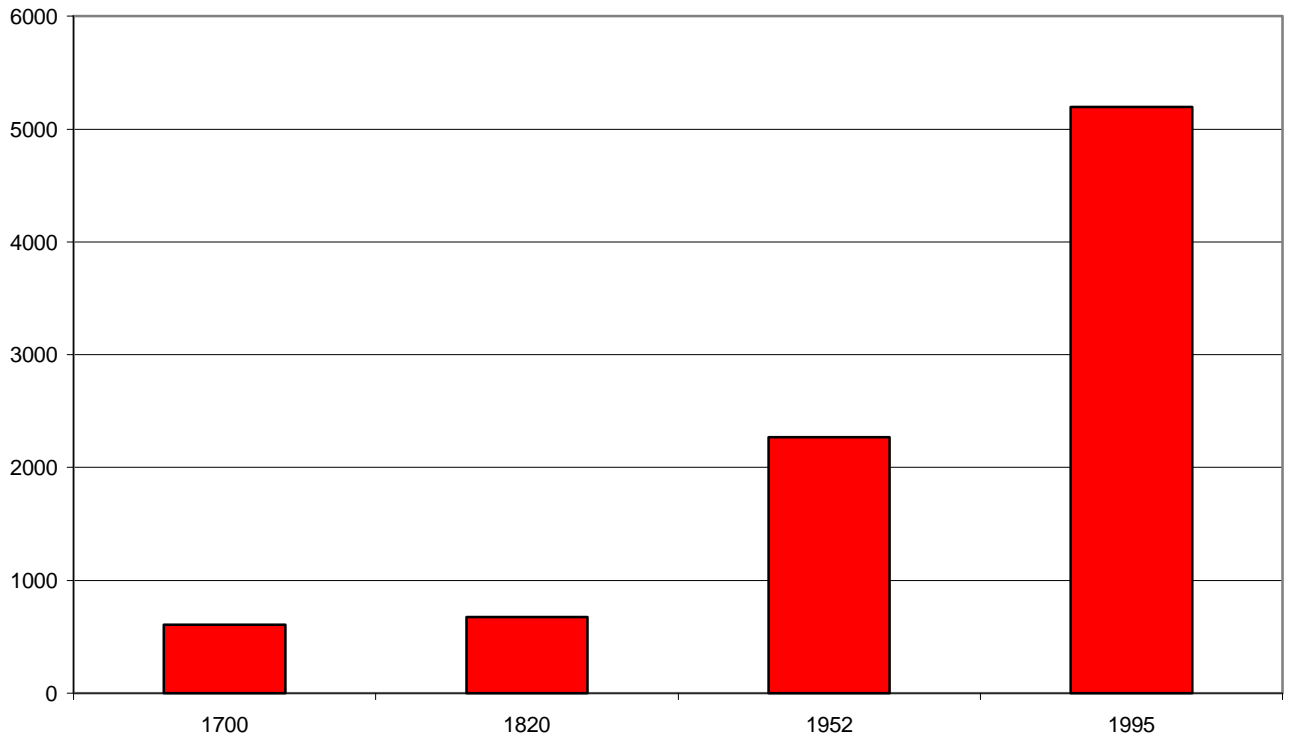
On the verge of world deflation, Japan bankrupt and Europe moving at near-stalling speed only, the emerging markets battered and the US beholding a glorious bubble—how can this mark the end of a great century of prosperity? And yet, this has been the best century ever, never mind the great depression, a momentary setback from communism and socialism, and two great wars. Mankind today is far and further ahead of where it has ever been and there are the seeds of innovation from biology to the Internet for better and richer lives even beyond our wildest dreams.

This century, and in particular the last 3 decades, have witnessed just that as the nation state has been dismantled in favor of a global economy, state enterprise and economic repression give way to and free enterprise, and breathtaking innovation and greedy capitalism break down government and corporate bureaucracies. . Anyone who says *impossible* finds himself interrupted by someone who just did it. The process is far from complete; innovation and free enterprise spread the mindset, the success and the acceptance of this model to the horror of status quo politicians and the sheer exuberance of all those who are willing to embrace a can-do attitude. If this century taught anything it is surely this: even daunting setbacks like depression and war are only momentary tragedies—buying opportunities, if you like-- in a relentless advance of the standard of living and the scope for enjoying better lives. One of the great economists of this century, Joseph Schumpeter – Austrian finance minister of the 1920s and Harvard professor at the end—wrote of creative destruction as the dramatic mechanism of economic progress. That process is at work.

A Century of Unprecedented Growth

For centuries human progress was limited by low productivity. Estimates of per capita GDP in 1700 that we owe to the creative work of Angus Maddison show every region in the world with much the same income per capita and minimal differences between the US, China and India. From 1700 to 1820 almost nothing happened to world per capita GDP. (See Figure) True, Europe then was somewhat ahead, but less than twenty percent. A century later, by 1820, the differences had widened to give Europe and the US twice the income per head enjoyed China and Japan or Russia where near-stagnation had been the rule. Yet, at the time India and China combined accounted for one half of world GDP! And then comes the first burst of dramatic growth that triples Europe's standard of living in the 19th century while quadrupling that in the United States. After centuries of virtually no progress, rapid advances in the standard of living changed both the fact and the aspiration of what could be achieved. The driving forces were capital accumulation and technical innovation, the division of labor and the spread of skills and capital around the world.

**WORLD PER CAPITA GDP
(1990 Int. Dollars)**

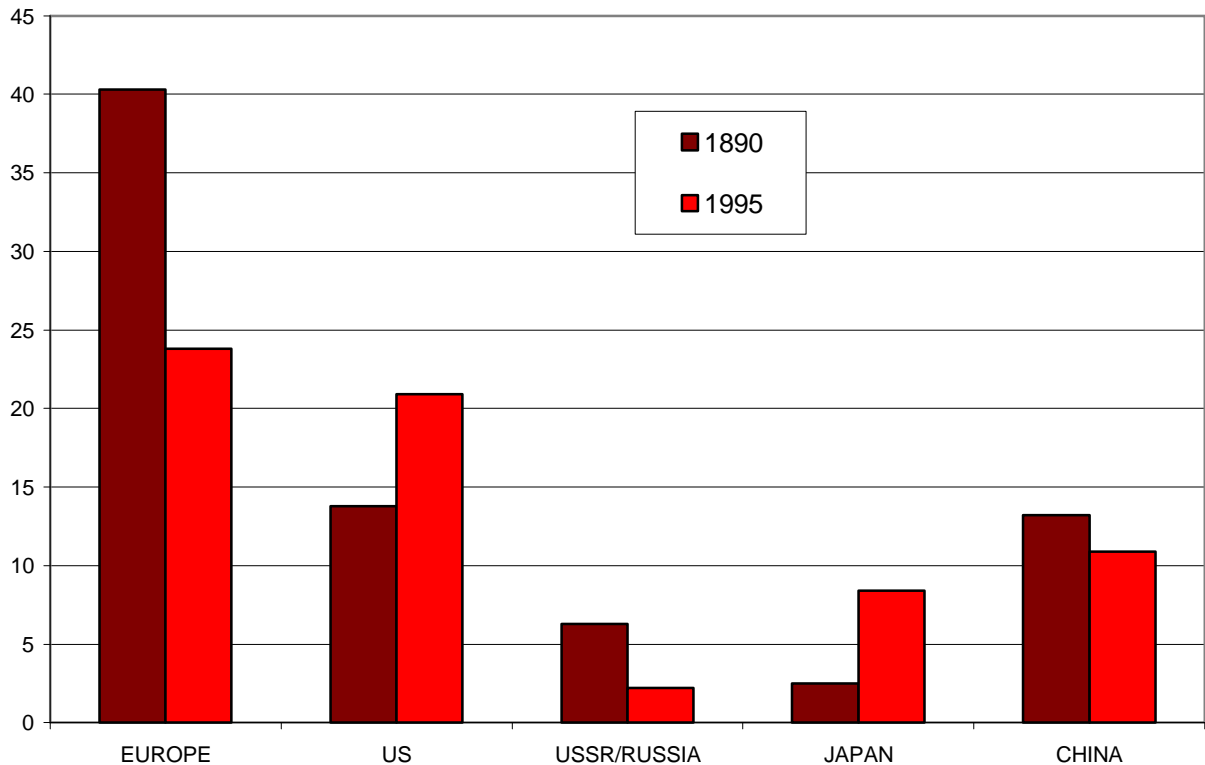


But what seemed dramatic progress in the 19th century does not hold up to the achievements of this century. The 20th century has seen the most rapid advance in living standards on record, much of it concentrated in the second part. Just since the 1950s, Japan has increased its standard of living 8-fold; China has raised more than 7-fold its per capita income in that period. And emerging market Asia has done much the same. An opening world economy, high savings almost everywhere (except in the United States), and the implementation of ever better technologies and economic structures have done much to provide the engine. And a half century of peace (and super power competition) has helped not divert attention from economic growth. Whether progress is measured by automobiles and TV sets per head, the decline in the cost of phone calls around the world, exploding capacity of an ever smaller computer, the increasing perfection of a CD recording, or the laser surgery that yields a new life—by any of these measures, 1900 was the stone age compared to where we stand today. Long distance learning live and on the screen is far leap from black and white still photography.

The record pace of growth in per capita GDP in the second half of this century naturally invites the question of what is behind it and whether there is a common explanation that is useful everywhere? Economics identify two elements: first, and quite obviously, a high pace of saving and capital formation in the world. This equips the labor force with increasing amounts of machinery and structures and thus makes labor more productive. No less obvious is the other factor, technological progress that means that we learn to do

things better so that the same amount of labor and machinery produces increasing amounts of output. In the same vein, technical progress also means that over time new ideas and improved technologies are embodied in better machinery and hence improved productivity. And so does better ways of organizing production and institutions that are more conducive to specialization and productivity. Some highlight creative destruction and others view stable accumulation as the trick —have war and ideological clashes held back progress compared to what it might have been without? Or is it possible, on the contrary, that they have been drivers of progress by destroying inherited crusty structures and obsolete technologies. The case has been made by observing Japan’s progress and that of Germany after World War II, putting them far ahead of the rest of the crowd. But then why did it not work in France?

SHARE OF WORLD GDP : 1890 AND 1995
(Source: A.Maddison)

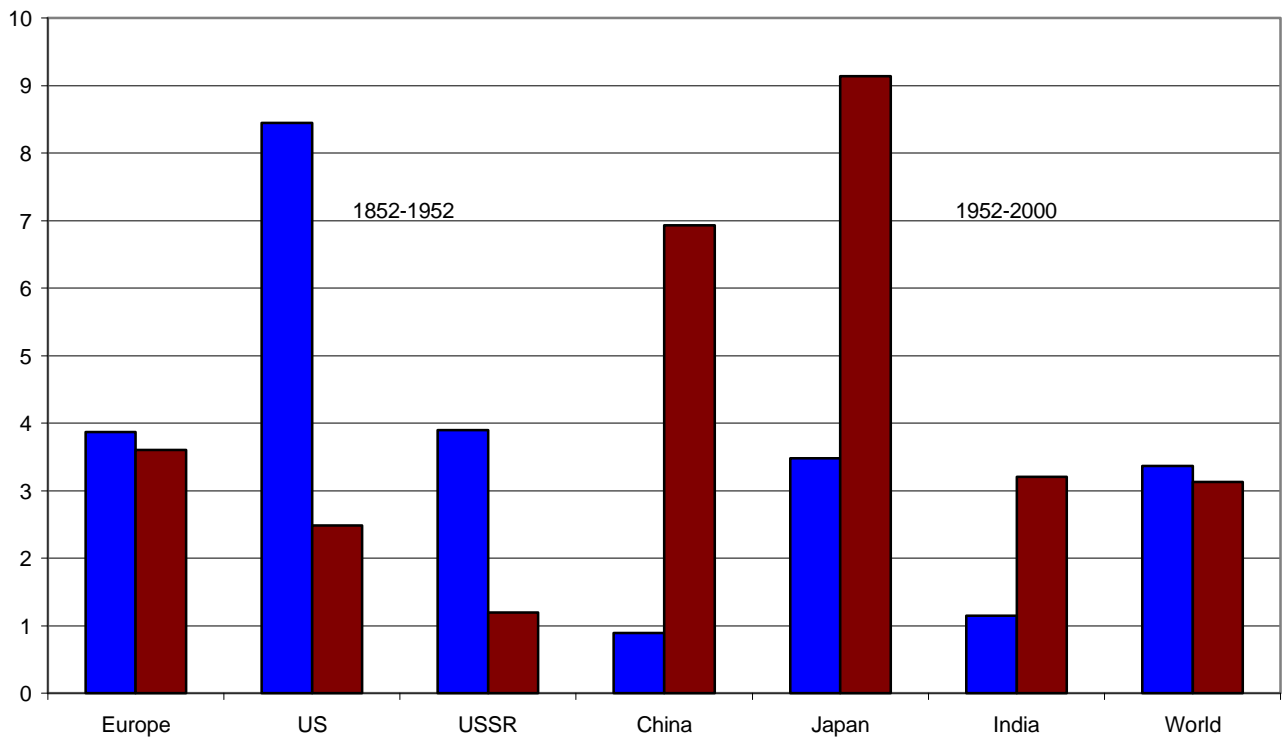


Economics Nobel laureate Robert Solow was the first to ask just how much of growth derives from capital formation and how much to attribute to the “residual” aptly named technical progress but really a bag for everything else. His stunning conclusion gave capital formation credit for just one-third of per capita growth and unidentified technical progress was responsible for the rest. That conclusion remains dramatic because it does suggest that the emphasis on saving and investment— as popular among communists, in Japan and in Europe—is perhaps overdone. After all, the economic game is about

consumption, and if it is possible to both consume and get ahead, so much the better. But that is probably the wrong conclusion to draw.

The right focuses is on what makes up the mysterious technical progress. Is it good financial institutions, is it an economic setting that fosters efficient allocation, is it political stability and property rights, and is it Japanese-style of obedience training in schools and on the job? Is it copying other countries' best technologies or is that hard and unrelenting pressure of stock markets to extract yet better cost performance from CEOs and workers? Disappointingly, the empirical evidence does not give us a short list of factors enhancing technical progress; the evidence remains open except in a few respects: instability, inflation, mindless bureaucracies, closed and repressed economies—all these are environments where progress is possible but only by working and saving extra hard. But when it comes to corporate governance, US style versus Japan, or labor market characteristics with European long term relations or a US-style high turnover, it is hard to show that one or the other has the better influence on how to get ahead. Japanese governance and German labor markets once seemed to hold out the prospect for much better performance; today one is identified with the bankruptcy of Japan and the other with the sclerosis of Europe. The search for lasting good answers continues.

Economic Progress
(Increase in the Per Capita GDP)



Both the 19th and 20th century saw the rapid progress of the advanced countries and there is no surprise in that we identify them with innovation and sustained high rates of capital formation. But the surprise is surely that in just a span of 50 years developing countries have shaken off century-old backwardness. Japan was the first to embark on this path, starting with the reform waves in the last decades of the past century. (See Figure) But it was in particular the last 3 decades of this century that witnessed the dramatic performance of emerging economies throughout Asia but also, off and on, in other parts of the world. In this period, India near-tripled its standard of living. From endemic near-starvation it moved far in the direction of sustained rates of per capita GDP growth. Singapore came from nowhere to overtake Great Britain, China accomplished a phenomenal six-fold increase in the living standard starting from a situation in 1950 that was no different from what it had been in 1700! There must be no mistake in reading the Asian performance: it does involve very hard work—more hours and more days—and it involves formidable sacrifices of current consumption in favor of capital accumulation and economic advance. There is no indication at all that with equal effort Asia would have made the big leap forward. But yes, it has done so and they have covered the path of centuries elsewhere in just a few decades. Only very authoritarian regimes can accomplish such progress since in open societies sacrificing a few generations is not a viable option.

One is tempted to ask which major country is the great winner of this century. Clearly, Russia is not since there has been more suffering and deprivation and less progress than almost anywhere else is. That was not obvious by the mid-1970s when Russian per capita GDP peaked but it is beyond discussion today and it is increasingly the case. Europe, Japan, the US and China are among the finalists; on the sheer numbers Japan is the winner, the Great Depression and a drastic defeat notwithstanding. China is next with awesome growth of the past 3 decades. Europe and the US did well enough by historical standards—quintupling income per head in a century had no precedent, but just that and not the pace of Japan or China. That is quite in line with what modern growth economics teaches: the ones who come from behind move faster and tend, ultimately, to converge. But that pace of convergence is still very unequal and its continuation is not even a foregone conclusion: Russia and Africa are moving backwards, India is advancing but not at the gallop pace of Emerging Asia. For those who lead the pack, growth tapers off to moderate rates.

Globalization

The late second part of the 19th century had seen the steamship, railroads and telegraph as the major breakthroughs in joining the periphery to the world's center economies. Globalization was the rule in trade, in migration and in the free flow of capital. The gold standard was but part of what made the open world economy function. The rich countries write the rules, they had the gunboats to collect debts and they had all the interest in keeping open the world economy even as they collected colonies, spreading the benefits of free trade. This was the period where the US had risen rapidly to prosperity and where Australia and Argentina came to top rank in the world economy. Migration to the New

World, and the migration of capital, rapidly developed the world's periphery. If there were concerns about globalization then, they were not memorable enough to be remembered.

The dramatic event of the century was the Great Depression—the total collapse of trade flows, belief in open trade, belief in free market economics. In a handful of years the lessons of a century were discredited. In just 3 years, from 1929 to 1932, world trade fell by 70 percent in value terms and 25 percent in real terms. Prices in world trade collapsed, and trade restrictions were mounted around the world, as “beggar-thy-neighbor” policies became the rule. Tariffs were escalated, quantitative restrictions and selected preferences became the rule, exchange control soon followed. The open economy had given way to protection of national markets and an overwhelming presumption that economics stops at the border. If these were the policies at the center, the periphery responded in kind. Debt default was common and industrialization behind protective barriers became the rule in those countries where commodity collapses no longer afforded a living. Latin America is a case in point.

But already by 1934, driven by the all-important US Reciprocal Trade Agreements the attempt to reopen world trade got underway. But it would take decades to gradually break down the fortresses. A key part of that reconstruction was the Marshall Plan, which rewarded European restoration of trade. An attempt at a World Trade Organization failed, but the General Agreement on Tariffs and Trade (GATT) became a pragmatic way of negotiating reciprocal, nondiscriminatory opening of trade. At the end of the 1950s gradually exchange controls were dismantled, for trade first and increasingly for all cross-border transactions. But all this was only the case for the advanced countries; the world's periphery and Japan had firmly accepted protection and currency controls as the only way to go. For them, opening up had to wait for the 1980s.

By the 1980s the world was basically back to where it had been before the collapse in the Great Depression. Of course, communications had improved radically and that made for more openness and trade and so did dramatic improvements in transport. But at the time, fully in the midst of an open world economy, it would have been a rarity to find sharp skepticism of globalization. That seems to be an issue of far more recent vintage, fostered predominantly by five factors: First, corporations learned to operate globally in the pursuit of markets and cost reductions. The recipe was easy, capital was mobile and in no time workers anywhere felt the competition from workers everywhere. Second, because of the mobility of capital, more financial accidents occurred, inevitably or not. Their large fall-out costs evidently cast a deep suspicion on globalization that had allowed the money to come in.

The third reason the global economy has a bad name is that competitive pressure forced governments to retreat from their statist policies. That left workers with a reduced sense of protection; standard responses of trade protection were ruled out by international agreements; there was no way to leave the ring. Fourth, with leverage and integrated world capital markets, a disturbance anywhere immediately becomes a problem everywhere. With more volatile economies and markets, no day passes without reminders

of the precariously small control people have over their economic lives. Lastly, the sheer pace of change in technology and finance, innovation, products, winners and losers outstripped people's ability to cope: Their reaction is to opt out simply because things were happening too fast. They see predominantly the threat and very little of the vast benefits. They certainly fail to recognize that when jobs are threatened it is mostly better technology, which in itself is a blessing, rather than cross border competition that puts people out of their job.

Globalization is the great challenge of the end of the century because, unlike in 1900, the pace of integration of the world economy has become phenomenally large. Competitors like China can in a decade or two move from entry level technologies well into the middle, threatening not only emerging markets but even established industries at the center. Workers believe that globalization is responsible for poor real wages and governments feel that their ability to control events, or at least give the appearance, is sharply diminished by the impact of world shocks on the domestic scene. The wish to opt out, or at least limit the interdependence, is heard all too often.

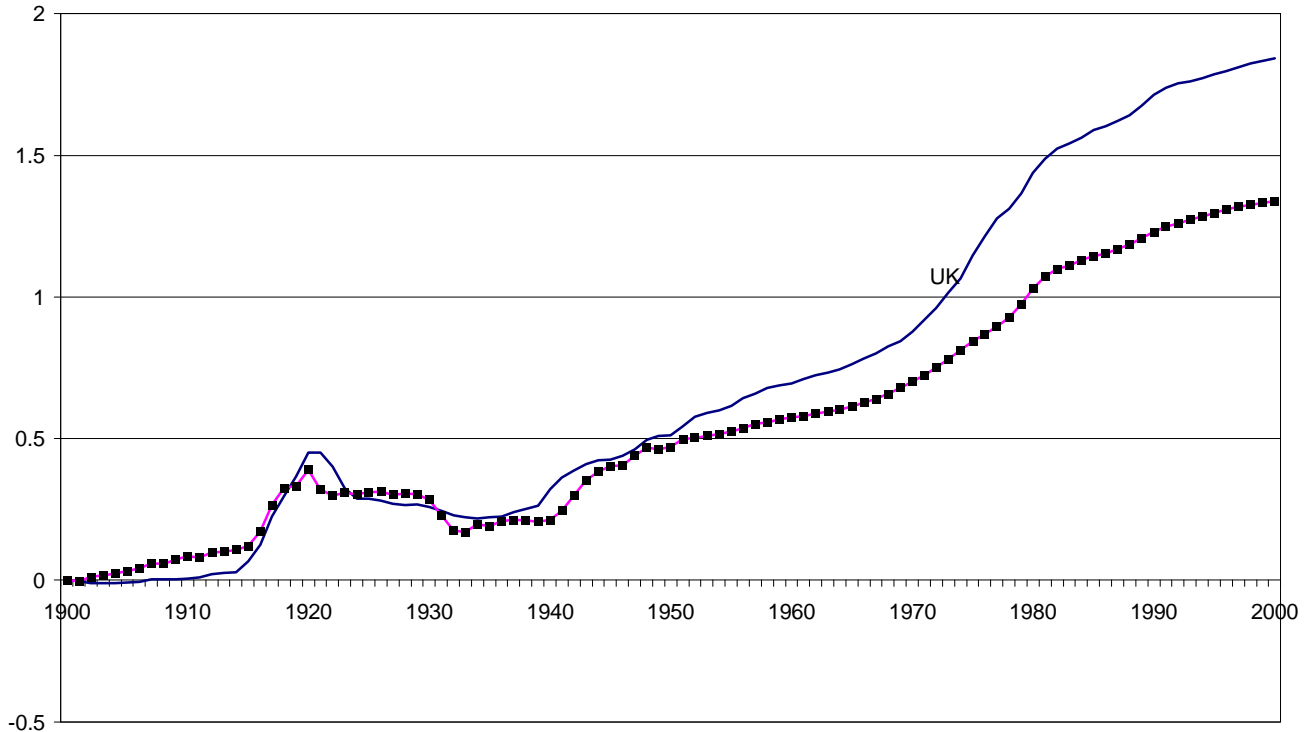
The openness and interdependence of the world economy is not going to be sacrificed. Nor can we be sure that volatility of financial markets declines or the pace of innovation and implementation of techniques slows down. Globalization will cease to be a concern in a generation or so when the young who have known no other world and are attuned to less stability come to be representative. But globalization will be controversial and will be challenged for quite a while and with a sympathetic hearing. It puts the burden on policy makers to keep the world economy open and to deal with unnecessary instability in a sound way.

The Fate of Good Money

Throughout the century, major changes in the value of money have been a prime economic and social issue. As the century draws to a close, the circle is complete: we are back to good money and to institutions that promise to keep it just that way. For most of the century we had inflation, interrupted briefly in the interwar period. The postwar II period in particular raised the issue of intolerably high inflation as the result of irresponsible monetary policy. (See Figure) The price paid for instability has been steep; both while it lasted and in the aftermath as good money had to be restored.

The century started with the gold standard: Britain had been there for a century, the US joined after the civil war, Germany after the Franco-German war; by 1900 every major country from Japan to Europe and Argentina was on gold. Very few countries were on paper standards and even fewer were hanging on to silver. The gold standard meant fixed exchange rates around the world, moderate inflation because gold discoveries were not plentiful and central banks or politicians had not yet discovered the printing press. Public finance as for the most part conservative and economic horizons were long—British perpetuities yielded 3 percent for much of the second part of the 19th century and onto World War I. Pax Britannica was a good monetary regime.

PRICE LEVEL IN THE US AND UK
(LOG SCALE, Index 1900=1)



World War I ended all that in the most dramatic fashion: Along with revolution and social upheaval, good money and the emperor all landed on the garbage dump. Governments who could do virtually nothing could do that one thing, printing money. And that is what marked the early 1920s: phenomenal money creation and even more extreme inflation throughout central Europe and Eastern Europe. from Germany to Russia, from Austria to Greece. France, to its own surprise did not go quite as far, Britain and the US not at all.

The hyperinflation of the early 1930s, was the first to be witnessed in recorded history. True, the gold discoveries in earlier centuries had led to a trend of rising prices, but ever so moderately. There had also been sporadic episodes of paper money inflation in France during the period of the assignats, in Russia in the 19th century and a bit in Austria, and in Latin America. But they were after all insignificant compared to the vast destruction of stability and wealth in the 1920s. Lenin said “if you want to destroy a country, destroy its money” and that is, of course, what happened. There could be no more convincing and lasting undoing of the established order and the middle class. Hyperinflation was surely the prime reason for extremism to come.

The brief restoration of hard money in the 1920s did not last. Britain that had championed the return to gold around the world, and had in fact returned at the prewar parity locked itself into a desperately uncompetitive situation. From there it was just a few years to the next bout of instability as, following Britain, country after country went off gold, competitive devaluation became the rule along with exchange control and a collapse of world trade. But going off gold was neither easy nor obvious. It was a deeply counter-cultural move, going against the grain of everything Britain and the City stood for. In fact, Winston Churchill said at the time “nobody told me you could do that” – famous last words for the end of Victorian finance. Where in the 1920s hyperinflation was the rule, the Great Depression brought deep deflation, which was just as unsettling to stable finance or public confidence. Those who tried to stay on gold did terribly; those who printed more money and debased their currency most aggressively did best. The world had turned upside down. Internationalism and capitalism were discredited, nationalism and ever more pervasive government took their place.

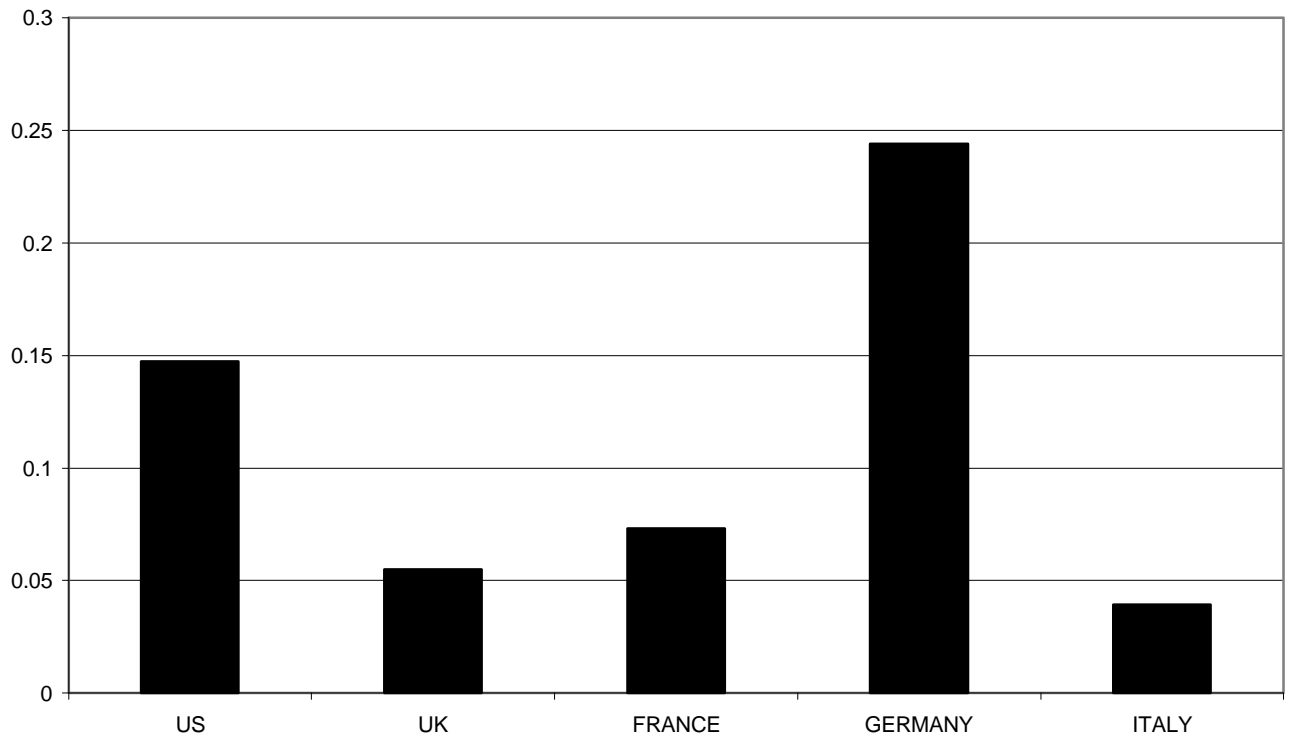
Postwar monetary reconstruction did not come easy. Huge debts, private and public, had been accumulated everywhere and many of the assets, including the tax base, had been devastated. Price controls everywhere held off the confrontation between a vast monetary overhang and a shortage of goods; black markets were the rule, from foreign exchange to sausages. Monetary reform and reconstruction, including drastic write-down of private claims and public debts were the rule throughout Europe. Monetary reform paved the way for price liberalization and the extraordinary resumption of economic activity thought by many impossible. The audacity of reform in Germany, in particular, stands out as notable: US General Cassius Clay told the great reformer Ludwig Erhard “Mr. Erhard, my advisers tell me your boldness is crazy” and Erhard replies “General, my advisers say the same.” Still, Erhard proved right, without functioning money, economic activity could not possibly start, with good money it could flourish.

On the domestic front, sound money was restored rapidly almost everywhere. With a brief interruption during the Korean War, inflation was not an issue. But on the external side it took to the end of the 1950s to restore convertibility and even then it was not general. France had recurrent lapses and Britain got there only in 1980 as one of Mrs. Thatcher’s first moves in office. Japan got there almost a decade later and increasingly the entire world. Among major players, only India and China remain with inconvertibility as a vestige of government control.

The century’s monetary history would not be complete without one more attack of instability and the fierce reaction to restore hard money at any price. US overexpansion of the 1960s, oil shocks of the 1970s and, above all, an unwillingness to confront slow growth or even recession to maintain good money are behind the Great inflation of this period. True, by the standards of the 1920s, this was serious inflation, but double-digit rates of price inflation alarmed the electorate and became an even more pressing issue than unemployment. In hindsight, a half-century of inflation has shrunk the purchasing power of money drastically in every advanced country. Germany fared best— of a 1950 Deutsche Mark there is almost 25 percent left in real terms; in France, the UK or Italy it is only around 5 percent. (See Figure) Clearly it is time to return to stable money and that

was the battle of the past decade. The mandate for much better money emerged in a strong fashion and turned central banks deaf to the pleas for accommodation. A new order, dating from the early 1980s, increasingly took hold as inflation was pushed down hard and harder. It took a decade and another decade to make credible and lasting.

**WHAT IS LEFT OF 1950 PURCHASING POWER ?
(INDEX 1950=1)**



Today the world has no more inflation and, if it comes back it will soon hit a concrete wall. Central banks, in Europe and in the United States, are independent and committed to the idea that needs to be killed at its very inception. Surely that proposition still needs to be tested, surely bond market yields do not quite reflect that lasting regime change quite yet but skeptics are sure to be proven wrong.

Thus monetary and financial troubles prevailed basically from World War I to the late 1960s, that is for half a century. The world we know today is pretty recent even if it is a return to where we were a century ago. The fight for hard money that has marked the past two decades has brought important changes in finance. Governments had to retreat and formally give up their authority over central banks. In Europe that has gone furthest with the disarmament of central banks in the soft money belt of Europe, from France to Italy and Spain. Debate about whether the ECB is a bit too stingy with interest rate cuts must not obscure the central achievement, money has been taken out of the hands of politicians who have mismanaged it for the better part of this century. The ECB is a monument to

the proposition that money is too serious to be left to politicians: in these matters there is no such thing as a responsible politician, *democratic money is bad money*.

The quest for hard money is also taking over the periphery: country after country has suffered the clash between bad central banking and fixed currencies. In the aftermath of defeat and collapse, a simple lesson is becoming quite apparent. Countries with poor political and financial institutions cannot afford their own money. They will do far better with unconditional surrender to the ECB or the Federal Reserve. They should adopt the Euro or the US dollar as the national money, get the benefit of sound money and low interest rates, avoid crises and thus enjoy a better prospect of economic development. Surely, 20 years from now there will be very few currencies left in the world—just as at the beginning of the century. Perhaps there will be Chinese money in Asia, the Dollar for the Americas and the Euro for everything else. And perhaps the Swiss Franc as a collectors' item. The vast change in public understanding of hard money, and the resulting stability and lengthening of horizons is a great accomplishment at the tailend of a century of monetary turmoil.

The State

In response to both the trauma of the Great Depression and a deep skepticism of free enterprise, the State has become a dominant part of economic life. At the outset of the century, outside periods of war, the state was minimal and so were levels of taxation, government employment or public outlays. Where before business and finance were substantially unregulated, now the State moved to the center in repressing free enterprise and initiative. Where before trade and finance flowed freely across borders, now it became national and regulated? Even in the area of production, state enterprise emerged as a response to bankruptcy or private economic power judged excessive. For some the rise of the State was an ideological response to a loss of confidence in capitalism, for others it was a pragmatic answer to a collapse of the world economy and of economic activity.

Whatever justification there may have been for big government in the Depression years and wartime, it was clearly gone by the late 1940s. And yet, big government had become the accepted paradigm and growing government the rule. But for whatever reason the State took center place in economic life, in the post-war years it has been awfully difficult to roll back the large advance the State made in every dimension. In fact, once the State played a key role in economic life, it was natural to look for ways of expanding its functions and powers to deal with an ever wider range of “problems”, substituting government employment, subsidies or spending for adjustment. The government grew; the private sector shrank in freedom, size and initiative.

It is interesting to consider just a few numbers marking the case of Germany. (See Figure) By 1960, government employment accounted for 8 percent of the labor force. By 1997 it was 16 percent. And that number does not completely measure the government's largesse since there is in addition the large group of unemployed who are paid not to

work and thus keep the status quo and social peace. Government outlays in 1960 amounted to 33 percent of GDP and by 1997 they had almost reached 50 percent. Surely it is not exaggerated to say that much of the spending is devoted to stop people from working and that much of the state apparatus does little but to slow down private initiative and success. Just what was the problem the government was solving that the private sector could not deal with? The answer is obviously that society rejected adjustment and free market responses as a solution—why accept hardship if the government commands purse and power to sustain the status quo. People were paid not to work or firms were subsidized to keep producing as if reality had not changed. Regulation completes the picture in the product market by barring initiative and competition.

Share of Government



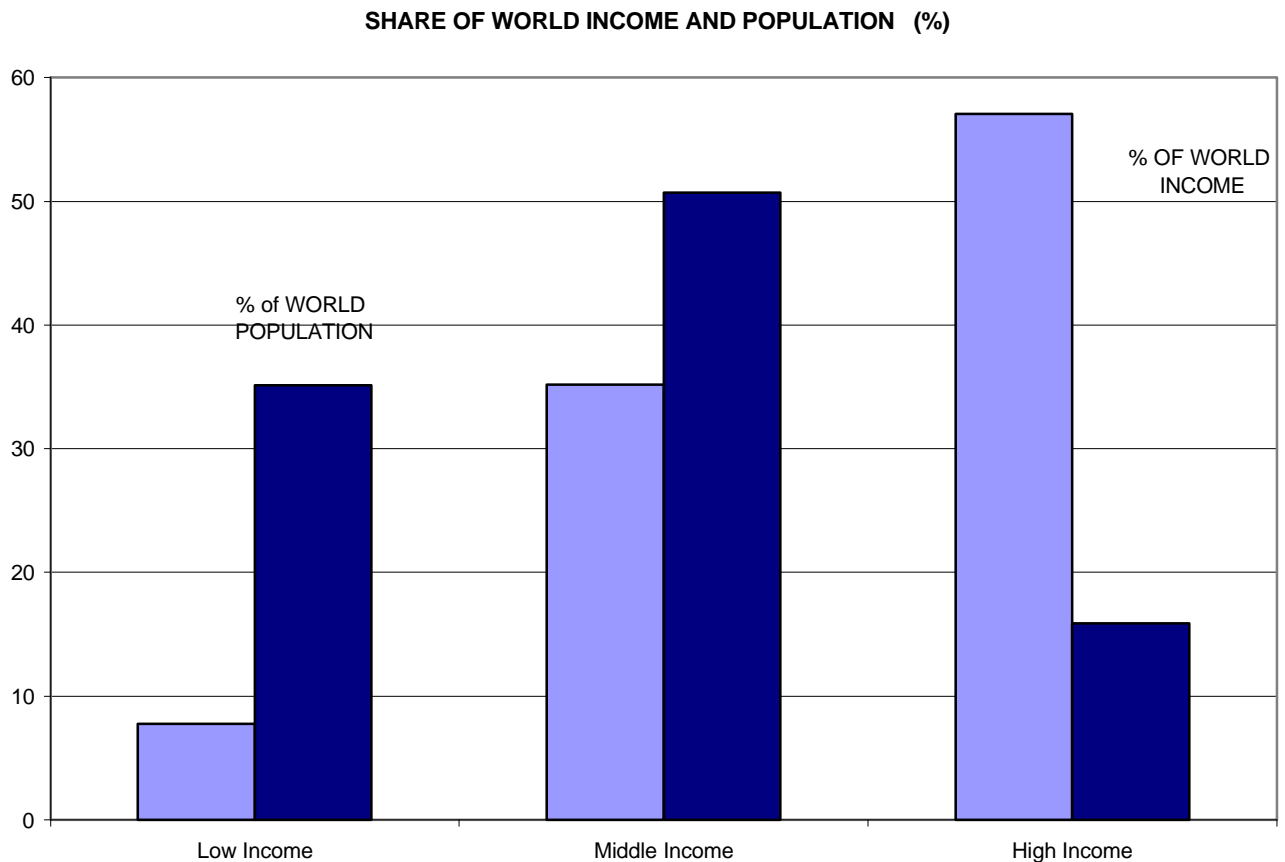
The fight to restore stable money was much easier to win, particularly in Germany, (See Figure) than the battle for a more productive and financially responsible economy. The reason is obvious: inflation is an immediate threat to the current generation’s assets and their sense of stability. They react immediately and give policy makers a mandate to fight for stable prices. But when it comes to government spending and jobs, the choice runs the other way: borrow from the future and support current waste. Never mind that resources are wasted today and create huge tax burdens for future generations, stick with the status quo. It is apparent now that it is unlikely that a major boom resolves these problems and affords an easy adjustment. Communism has fallen, but capitalism is still not accepted in large parts of the world, notably in Europe, where statism keeps being entertained as a third way. It is not a third way in fact; it simply amounts to shifting burdens to future

generations. The reality is that the bad habit of bloated public sectors and bloated unemployment rolls, the lack of individual initiative and responsibility are a dramatic mortgage on future generations and the next century.

Inequality

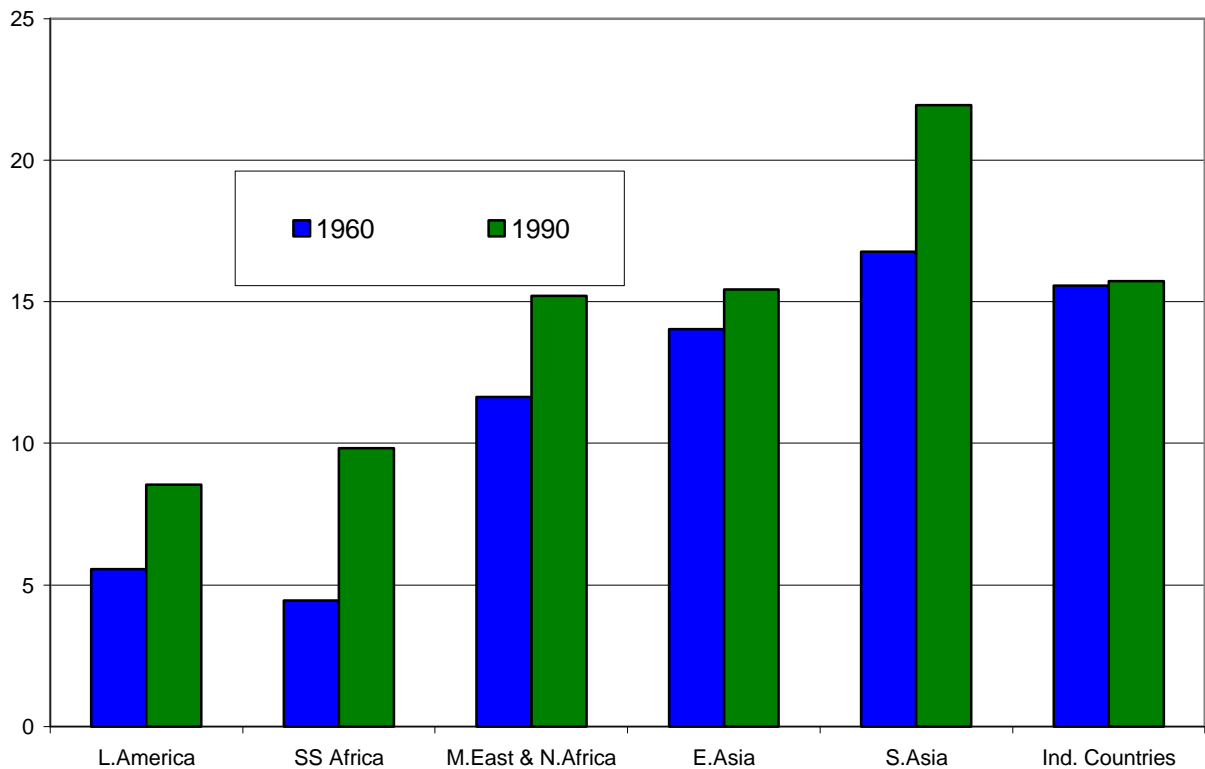
Inequality in the world economy is real. It is there across countries, between the rich center and the poor periphery. And it is there within countries where wages are often highly dispersed. Inequality, of course, must not be confused with poverty even though at the bottom they feel the same.

The most immediate pass at this issue is to look at the distribution of world income and population (See Figure). Not surprisingly, high-income countries have the overwhelming share of world income, nearly 60 percent, but have barely 15 percent of world population. By contrast, the poorest countries in the world have 35 percent of world population but less than 10 percent of world income. And even these averages disguise the even more striking differences between the upper income groups in rich countries and the poorest in poor countries, day and night. Clearly, there is nothing remotely resembling equality nor is there a trend in that direction.



Within countries, comparisons of poor and rich the story is actually more favorable, at least in the past 30 years. Of course, the poor have a far smaller income share than the rich, but everywhere the discrepancy has declined. In Latin America where the poor used to have 5 percent of the income of the rich they are now up to nearly 8 percent. In the far more equal Asian region, the poor have moved from 16 to 22 percent of the incomes accruing to the rich.

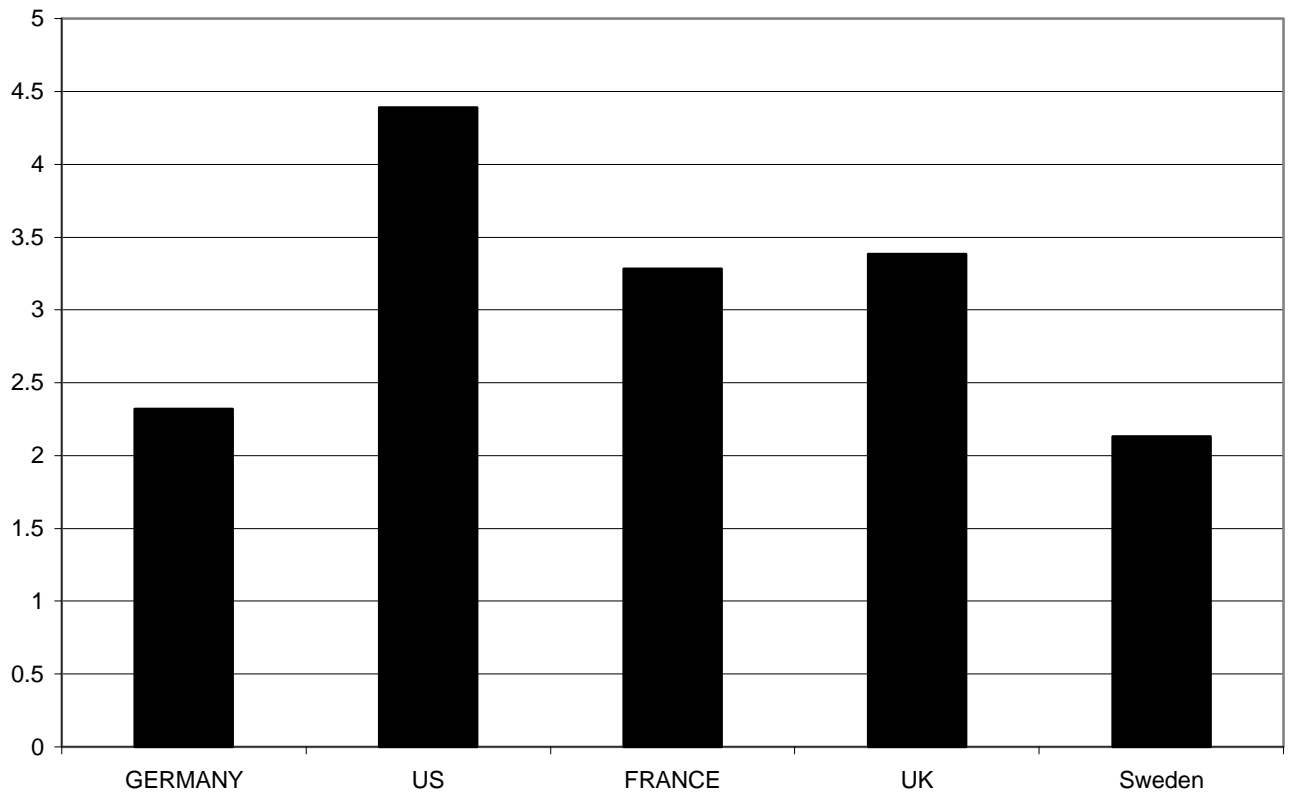
POOREST-RICHEST INCOME COMPARISON (%)



And there is a third dimension of inequality, this one on the job. How do the top and bottom groups (deciles) of the labor force compare in earnings? Are wages highly compressed by custom or unions or the fact that one worker is just like any other in skills and motivation or anything else that counts? Or are wages dispersed with stars and losers. (See Figure) Across industrial countries we see dramatic differences: as expected, the US has the largest dispersion, almost twice that of Germany. Not surprisingly, German workers resist the American model because pessimistically they believe that somehow they will wind up at the bottom even though not everybody can be at the bottom.

What is wrong with inequality? Poverty is bad, but inequality is not. Surely this is one of the battles of the end of the century. In open and competitive markets, wages in any year or for any person may have a large good luck/bad luck component. But surely on average they reflect energy and talent, motivation and investment in human skills. Any society that limits rewards to accomplishment will achieve equality, but it will come on a low common denominator. Rewards to excellence, or inequality if one wants to call it that, are the great driving force of progress. Public policy should be concerned to give broad access to strong education and pay less attention to the outcomes of the economic race. Three cheers for inequality; it is good for growth and growth is the best way of rooting out poverty.

Earnings Dispersion: Top To Bottom Decile



The Economist in the 20th Century

A century of dramatic economic events can be viewed in terms of its great economic controversies and the leaders that have emerged in the profession. In this perspective, the century started with Victorian calm— everything was known, Alfred Marshall of Cambridge had codified it and there only remained the details to be filled in. Free enterprise, stable money and an open world economy were the playing ground for prosperity. There was not much in terms of policy other than the gold standard.

The interwar period with growing depression in England, the collapse of financial markets and the ensuing Great Depression, was a dramatic challenge to the profession. This was not supposed to happen, at least not cumulatively and ever for the worse. By 1930 the classics were on the garbage dump and a new generation was brought revolutionary new ideas to cope with the greatest threat to prosperity in memory. They were all rather special: Schumpeter who as finance minister failed to stop hyperinflation in Austria, ruined a bank and then became a professor. He said he had three hopes—to be the best horseman in Austria, the greatest lover in Europe and the best economist in the world— and claimed to have succeeded at two of them. John Maynard Keynes who was as much an intellectual and brilliant writer, a financial wizard (he lost two fortunes and made 3, mostly in the German hyperinflation) as a deep economist and an acute policy maker. And then there was Irving Fisher of Yale, gone bankrupt 3 times (his own, Yale's money and that of his wife) in misjudging the stock market, famous inventor of the Rolodeck and live healthily and the answer involved sleeping outside, in particular in winter.

While Keynes comes away as the winner in the context for dramatic and practical ideas, Schumpeter and Fisher left important legacies in the way we think today about business cycles, growth processes and the interaction of deflation and economic activity. Keynes clearly dominated the scene: his focus on inflexibility of wages and prices and the limits to monetary policy in a depression (now rediscovered in Japan) brought fiscal spending to the foreground. Leave gold and start spending. Governments should pay people to dig holes, never mind that nobody needs the holes, pay them to fill them in again and the incomes earned will be spend and if done on an ambitious enough scale, the economy can spend itself out of recession or depression. This was radical thinking, both in fiscal terms and in the role of government, and it worked. No surprise that governments for decades bought into Keynesian ideas until public debts had become too high and waste too big to give it further credence.

The next generation of formidable economists was Paul Samuelson and Milton Friedman, the heroes of the 1960s and into the 1970s. Friedman was the free market and hard money advocate, and a brilliantly articulate advocate at that, the very incarnation of the Chicago School. Samuelson of MIT, by contrast, was the modern Keynesian, a Democrat in politics and a formidable thinker about how to formulate a modern and mathematical of economic theory. Both had their victories: Samuelson won in the 1960s when he urged (along with many others) the Kennedy administration to spend its way to prosperity—and they got there. The only rival to that expansion is what is still underway today. But overexpansion gradually build up wage and price inflation and by the early 1970-s, with dollar collapse an oil price shocks the experiment became largely discredited. Pump

priming with monetary accommodation can go some way but if overdone will crash. No sooner had inflation emerged; Milton Friedman had his time on the stage. Monetarism was the rage; the quantity theory of money was back in full swing. But his contribution, and that of other scholars at the time, went further: crudely summarized, it said, you can fool some people all of the time and some people some of the time but not all people all of the time: more technically, the public catches up with what governments do, they (ultimately) have rational expectations. The practical implication was to minimize the scope for government cyclical policy.

Friedman's doctrines became the background for a dramatic period of rethinking economic doctrine: the leadership was provided by Robert Lucas of the University of Chicago. Taking rational expectations to the rigorous extreme, his theories concluded that government should adopt a monetary rule, an unchanging flat tax rate and be done. In other words, government activism merely confuses, misfires and distorts, government get out of the way! Economic agents are rational, they do not leave \$100 bills lying on the floor, and the economy does better without activism in policy. Few, at least of my generation, would believe the starkest renditions of this view. But the truth is that our profession by and large views Keynesian economics with deep skepticism, accepts monetarism by and large, assumes that government has a proclivity to make things worse. The profession has become deeply conservative just as it had been at the beginning of the century. And governments are going that way too, from the care in creating a tamper-proof ECB to the Waigel pact, balanced budget amendments, currency boards and overarching respect for the bond market.

Angst 2000: Who Is in Control?

People of middle age and up around the world perceive that globalization undermines the stability of their lives and that volatility, falsely perceived to be higher than ever, puts them at grave risk. They feel they have lost control and they perceive the same is true of their governments. They want assurance that security is regained, someone has to do something. Surely these sentiments will get far worse if and when Japan crashes. That is altogether possible since Japan's debt is huge, its budget deficit is mind boggling, its financial institutions are bust, its investments have been bad, its policy makers are unconnected to reality, and the loss of confidence is pervasive.

And there is the potential of a US crash, less likely because monetary and fiscal policy can respond but never say never. Even with all the US prosperity, the world today has had an overdose of finance and hence it is far more likely that a serious accident can happen. And if it does, we can be sure the fall-out is worldwide and we must fear that the first instinct is to play the defensive and destructive strategies of the Great Depression.

Citizens want to know who is in charge? The answer is nobody; the US can't lead Japan, Europe cannot lead the US. The US urges Europe to move to prosperity policies but has no resonance; the US urges Japan to move out of recession but gets no hearing and surely no success. Europe is critical of the huge US trade deficits and lack of saving, not recognizing that if the Us started saving the dollar would come down and Europe would

lose jobs on a large scale. The Japanese dream of not buying US T-bills, not realizing that the Yen would go through the roof and the Nikkei through the floor.

The world does not need more regulation and agreements to fix this or that; it does need a heavy dose of prosperity policies. Milton Freedman, in commenting on the Great Depression, criticized the Fed for not printing money massively. That is the message to Japan. To Europe the message surely is to get deregulation underway so that dynamism in business and employment starts freeing up the fiscal side for emergency use. If Japan and Europe start moving it is time for the US to think of a smaller trade deficit; that will come automatically as the rest of the world recovers. The US role today is to assure that stock market problems at home do not become world problems and to make certain that ideas to fix exchange rates get nowhere and, along with its partners, insist that the world economy remains open.