The past year and a half has been a painful time for the world economy. In some countries, decades of progress have been reversed in a matter of months, so soul-searching is entirely appropriate. But we should also take stock of our accomplishments. At the Council of Economic Advisers and throughout the government, microeconomic issues command the majority of our time and attention. Fortunately, most economists, of whatever origin, value efficiency, appreciate the role of markets and incentives, and agree on the methodology for analyzing policy options.

My focus here will be on macroeconomics, where controversy reigns, rather than microeconomics, where economists generally agree. The Employment Act of 1946 and its later amendments, which established the CEA, gave the federal government the responsibility for stabilizing short-run economic fluctuations, promoting balanced and noninflationary economic growth, and fostering low unemployment. The Act envisioned the CEA's main role as giving the president advice on macroeconomic policy. But with radically different strategies advocated to attain the Employment Act's goals, the choice of advisers and paradigms arguably makes a real difference.

Consider some of the key questions on which macroeconomists disagree. Macroeconomists disagree on whether markets work adequately to create jobs on a continuous basis for those able, willing and seeking to work; they disagree on whether monetary and/or fiscal policy affect aggregate demand and whether active policy intervention can improve macroeconomic performance in practice; they remain at odds on whether budget deficits are good, bad or irrelevant; and they differ in their views on whether anticipated inflation imposes enormous economic costs or just minor inconveniences. In addition, there are sharp disagreements on which 'supply-side' policies are appropriate to boost economic growth.

Is there a Yale paradigm? And if so, what follows from it? Let me take a stab at a characterization, recognizing in advance that my description of the Yale approach may seem like a caricature that ignores the diversity and subtlety of opinion at Yale and the evolution of views over time (after all, it is almost 30 years since I last sat in a Yale classroom). The Yale macroeconomics paradigm, as I have taught and hopefully practiced it, combines a Keynesian understanding of economic fluctuations with a neoclassical...
perspective on long-run growth. In the most difficult battles in the macro-
economics war, Yale economists – Okun before my time, Tobin, Brainard,
Nordhaus, Stiglitz in my time, and Shiller, Fair and Bewley after my days
at Yale – have served with distinction on the Keynesian side with Chris
Sims, whom I view as neutral, telling what to do econometrically. The
IS/LM and aggregate demand/aggregate supply models, hopefully still
staples in Yale’s classes, provide the simplest description of the short-run
paradigm, while the neoclassical growth model, to which Tobin, Phelps,
Nordhaus and other Yalies contributed, provides the essential analytical
tool for long-run analysis.

The Yale macroeconomic paradigm provides clear answers to key ques-
tions dividing macroeconomists, along with policy prescriptions. Will cap-
talist economies operate at full employment in the absence of routine
intervention? Certainly not. Are deviations from full employment a social
problem? Obviously. In the words of my friend and teacher Jim Tobin, ‘It
takes a heap of Harberger triangles to fill an Okun gap.’ Involuntary unem-
ployment is an extraordinarily costly social waste and the failure to address
it can exacerbate structural unemployment by denying new entrants the
skills and experience to succeed. On the question of whether monetary and
fiscal policy can succeed in moving the economy toward full employment
Yale answers ‘yes’ in both cases, except in exceptional circumstances such
as a liquidity trap. (After the Great Depression further real-world examples
of limits on monetary policy due to a liquidity trap seemed unlikely, but
Japan, unfortunately, provides a modern example.) In addition, the Yale
paradigm recognizes that the exchange rate regime matters to policy
impacts with a system of flexible exchange rates enhancing the effectiveness
of monetary policy and diminishing the effectiveness of fiscal policy as a
stabilization tool.

Do policy makers have the knowledge and ability to improve macroeco-
nomic outcomes rather than make matters worse? Yes, although there are
lags and uncertainty with which to contend. On the perpetual question of
whether budget deficits matter and if so why, the Yale answer distinguishes
between cyclical and structural deficits. Structural deficits matter because
they diminish national saving, crowd out private domestic and foreign
investment and reduce future national income. On day one of macro,
however, Yalies learned that the automatic tendency of tax collections to
fall and transfers to rise during an economic downturn, creating larger
deficits in the Federal budget, serves as a vital economic shock absorber
that cushions private spending and mitigates fluctuations. Those stabilizers
should never, ever be disconnected. Are the costs associated with antici-
pated inflation high or low? Although most Americans apparently loathe
inflation, Yale economists have argued that a little inflation may be neces-
sary to grease the wheels of the labor market and enable efficiency-enhancing changes in relative pay to occur without requiring nominal wage cuts by workers. The attempt to push inflation too low could permanently raise unemployment and reduce the scope for monetary policy. Moreover, inflation’s most serious impacts, through distortions in the tax system, can be addressed through indexation of the tax system, while small savers can be protected by inflation-indexed bonds.

Finally, what can be done to promote long-run growth? Yale’s focus has urged increased national saving to enhance capital accumulation, and the promotion of human capital and R&D. These strategies, however, require current sacrifice to achieve future gain.

Having described the key elements of the Yale approach to macroeconomics, let me go on to claim that the Yale paradigm is alive, well and succeeding in Washington. Yale is certainly well represented. Two former Yale professors and two Yale PhDs have served on President Clinton’s Council of Economic Advisers (CEA); three Yalies (2 PhDs and a mere undergraduate) have served on the Fed. There are highly placed Yalies at the Office of Management and Budget (OMB) and Yale PhDs occupy influential senior posts at the Fed, although that stalwart of stalwarts, Ted Truman, who has worked to solve every international financial crisis for the last 25 years, has moved to the Treasury. In addition to Yale economists, Yale lawyers have had some say about economic policy since they serve as Chair of the National Economic Council, Secretary of the Treasury and sit in the oval office. Correlation is not causation, but if macroeconomic policy is succeeding, and I believe that it is, perhaps, along with good luck, the Yale paradigm deserves some of the credit.

I think it is easy to make the case that the US macroeconomic performance has been excellent – the best we have enjoyed since Jim Tobin went off to Washington in 1961 to help translate the Yale paradigm into policies which resulted in a 106-month expansion, the longest in recorded American history, with the records dating back to 1854. In the case of the current expansion, last December marked its 93rd month, making it the longest peacetime economic expansion on record. The expansion must continue through next February in order to break the record established in the 1960s. Throughout the expansion, job creation has been vigorous, with over 18 million jobs created since the beginning of 1993, unemployment has fallen to levels not seen since 1969, an accomplishment that seemed unthinkable only a few years ago, real growth has been solid, albeit below that of the 1960s when both productivity and labor force growth were higher. And remarkably, inflation has declined. The consumer price index rose by only 1.6 per cent during 1998, its second smallest increase since 1964, with other measures of inflation yet more muted. By this time in the expansion of the
1960s, in contrast, inflation was rising sharply and was much higher than now, approaching 5 per cent. And this year the federal budget moved strongly into surplus, reaching $69 billion, the largest surplus as a share of GDP since 1957. Moreover, surpluses are projected well into the future, amounting to about $4.5 trillion over the next 15 years, according to administration estimates. Back in 1992, the budget deficit was $290 billion and expected to rise much further without policy changes.

While economic expansions have usually worked like tides lifting all boats, less skilled and disadvantaged workers have typically benefited disproportionately. During the expansion of the 1980s, however, low-income workers lost ground because the benefits of an expanding economy for these workers were offset by long-term trends depressing wages at the low end of the earnings distribution. However, the strong labor market we are enjoying now is again producing gains both in jobs and in earnings for these workers. The poverty rate has declined, with poverty for black Americans at a historical low, and in 1998 unemployment among blacks fell to its lowest level since 1973. After years of decline, the real wages of blacks and Hispanic workers, including young workers, are rising strongly. In 1998, for the first time since at least 1979, the real wages of male high school dropouts rose almost 7 per cent. A strong economy in which job opportunities are plentiful is also a critical complement to programs and policies, like welfare reform, that are intended to encourage work. As the welfare rolls have plummeted since 1993, the labor force participation rate among single mothers aged 16–45 with children under 18 has increased by almost nine percentage points, and employment rates have also increased, suggesting that those leaving welfare are finding jobs.

I believe that the macroeconomic performance that I have described and the policies that have been pursued since 1993 reflect a sensible translation of the Yale paradigm into economic policy. The major short-term problem facing the economy in 1993 was high unemployment and sluggish recovery from recession. America’s most important long-term problems included stagnant real wages, reflecting slow productivity growth, along with rising income inequality. In addition, the policy mix was disastrous from the standpoint of long-term growth: the Federal budget deficit was large and rising, with debt growing faster than GDP, and growing foreign borrowing that had transformed the USA into the world’s largest debtor. National saving had fallen substantially during the 1980s, as both private and public saving plummeted, and stood at a paltry 3.1 per cent in 1992, its lowest level in the postwar period.

What was to be done? The Yale paradigm dictated that, in principle, either monetary or fiscal policy could be used to get the economy moving. However, with national saving low, fiscal policy already excessively lax
from the standpoint of long-term growth, and deficits poised to grow nearly explosively, tighter fiscal policy, with smaller structural deficits, seemed the appropriate prescription. Moreover, a failure of the administration to come to grips with mounting Federal deficits risked the possibility that Congress might pass a Balanced Budget Amendment. By requiring that the budget balance in all but exceptional circumstances, this Amendment risked long-term damage to US macroeconomic performance by decoupling the automatic stabilizers. Such an outcome would have been disastrous. The overall economic situation was strikingly similar to that Jim Tobin faced in 1962, but the constraints created by a growing federal deficit, along with the enhanced effectiveness afforded to monetary policy by the demise of the Bretton Woods fixed exchange rate regime, led to some rewriting of the playbook.

Consistent with the Yale paradigm, the administration settled on a strategy of fiscal contraction coupled with (they hoped) an appropriate and well-executed policy of monetary accommodation by the independent Federal Reserve. The Fed’s job would be to move the economy to full employment and to keep it there, offsetting the potential contractionary pressures resulting from mounting fiscal tightness over time. This strategy had its risks: contractionary fiscal policy could exacerbate unemployment in the absence of an appropriate monetary policy response, so that increased saving, instead of translating into higher investment, might instead be dissipated through declining output. (Indeed, to address this risk the administration initially proposed a short-term stimulus package, which luckily was not needed.) A further concern was that the cuts needed to reduce the deficit could diminish the resources for public investments – in human capital, in infrastructure and in R&D – which are also essential for growth. Cuts in spending that would be counterproductive to growth had to be avoided and ways devised instead to marshall additional resources for research, education and other investments in people in the face of increasing fiscal stringency.

The strategy was implemented, with the passage of the Omnibus Budget Reconciliation Act of 1993 and the later Balanced Budget Act of 1997, and I think it is fair to claim that it worked, even better than the textbooks might have predicted. The passage of a credible, phased in, deficit reduction package, coupled with the expectation by financial markets that the Fed would act appropriately to keep the economy growing, brought long-term interest rates down quickly, providing an immediate short-term economic boost. The expectation of fiscal tightening perhaps paradoxically may have speeded the pace of recovery. As anticipated, investment spending surged, with industrial capacity growing more rapidly over the last four years than in any other year since 1967, when the series began. In contrast to the other
long expansions of the postwar period, this one has been overwhelmingly investment-driven. The national saving rate has more than doubled, reaching 6.6 per cent in 1998 even though boosts in wealth due to the strong stock market have essentially eradicated personal saving. Surpluses in both the structural and actual budget have at long last been achieved.

The emergence of large budget surpluses creates the opportunity to boost national saving yet further, helping prepare for the demographic transition at our doorstep. Saving more now would enlarge the pie later, easing the burdens on future workers resulting from the need to support retirees. In addition, a decline in national debt would free government resources needed to finance Social Security, Medicare and other retirement benefits by reducing debt-servicing burdens. The preservation of these surpluses, and their use to pay down debt, requires that Americans forgo current consumption and tax cuts now in order to enjoy greater consumption later. Polls suggest that, with a strong economy, Americans are prepared to make such a sacrifice. Thankfully, the potential disaster of a Balanced Budget Amendment was avoided, although policy makers must always remain on guard to ensure that the automatic stabilizers are not disconnected and they would be by legislative proposals that have recently been unveiled to force debt reduction along a predetermined future time-path.

This expansion provides an illustration of the IS–LM model in action: policy shifted the IS curve left, and the LM curve right by more; the results worked just fine. Actually, the results have been better than the textbooks would have predicted because one of the pleasant surprises of this expansion has been the continued good behavior of inflation. Policy makers have taken advantage of that surprise to push both inflation and unemployment below levels that were thought to be achievable.

The Yale paradigm has always recognized that good policy requires a sensible approach to handling uncertainty. Structural shifts occur and the impacts of policy actions are uncertain. During the current expansion, standard statistical estimates of the NAIRU suggested that the economy had entered incipient inflationary territory by the end of 1994, when the unemployment rate fell to 5.5 per cent; yet actual inflation continued to fall well into 1998 as the unemployment rate declined another point. The Phillips curve had veered off track, and a key policy question facing the Fed was how to gauge the risk of inflation and decide what level of inflationary risk to tolerate. Ideally, an explanation for the forecast errors would have been identified. Possible suspects include a variety of arguably temporary supply shocks, an inflation-mitigating increase in capacity, resulting from the recent rapid pace of investment, and possible shifts in the reduced-form Phillips curve relationship between inflation and unemployment due to a
shift in the Beveridge curve – a favorite Yale tool for characterizing the extent of structural mismatch in the labor market. Conceivably, global competition had eroded the bargaining power of workers, with unusually low quits and high anxiety about layoffs among workers causing a shift in the Phillips curve.

How should such uncertainty be handled? Recognizing that estimates of NAIRU have a wide band of uncertainty, a sensible monetary policy strategy, and the one that was followed with spectacular success, entailed probing the frontiers, balancing the gains from lower unemployment against the risks attendant upon higher inflation, and revising views about tradeoffs along the way, taking new data into account. The success of monetary policy in the current expansion epitomizes the Yale view that discretionary monetary policy guided by trained common sense can improve economic outcomes even though it cannot precisely fine-tune the economy.

I have touted the scope for Yale economics, properly applied, to promote prosperity, using the United States as an example. I conclude on a cautionary note, stressing that the Yale model also contains sobering lessons for macroeconomic management. Decades ago, economists recognized an unfortunate implication of the Yale macroeconomic paradigm: that the simultaneous attainment of financial market openness, monetary policy independence and exchange rate stability – three desirable macroeconomic goals – was simply impossible! Countries would have to forgo at least one or risk financial crisis. Recognizing this policy dilemma, Tobin suggested the desirability of reducing capital mobility through a small transactions cost to throw sand in the wheels of global capital flows. A few countries took measures to restrain capital inflows; some forswore independent monetary policy, living with the unfortunate consequences; and some adopted flexible exchange rates. But many countries tried to have it all. As Yale economists forewarned, an international financial crisis resulted.

How should we proceed from here? What macroeconomic advice should policy makers offer to small open economies to help them achieve prosperity? What should be done to strengthen the underpinnings of the international financial system to make it less crisis-prone? And how can we improve the mechanisms available for dealing with future crises that may arise? This remains the unfinished agenda. Not surprisingly, Yale economists have already taken the lead in addressing these questions.

I am confident that in the next century the creative ideas generated by Yalies will help improve macroeconomic policy and promote prosperity not just in the United States but around the globe.

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