Challenges to Economic Recovery in the United States and Europe

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Introduction and Overview

After a quarter century of generally moderate economic growth, interrupted by only relatively mild recessions, the United States and Western Europe suffered their most severe economic contractions of the postwar era during the great global recession of 2008-09. Thanks to the strong performances of most emerging market and developing countries, the subsequent recovery has been moderately vigorous for the world economy on average, even though it has been notably sluggish and disappointing for most of the advanced economies. This paper will examine the reasons for the reasons for the sluggish recoveries so far in the United States and Western Europe and the prospects for their economic growth looking forward.

I will take a medium-term perspective on growth prospects—the next 5 to 10 years, covering both the United States and Western Europe. In accord with the implicit division of labor in this session, I will give somewhat more emphasis on the United States. Issues of short-term macroeconomic policy management and factors underlying long-term economic growth will get some attention, in so far as they are relevant to economic performance over the medium term. For Western Europe, the main focus will be on the euro area. The United Kingdom will get some attention, as it provides a useful contrast with countries in the euro area. Sweden and Switzerland will also get brief mention primarily for the same reason.

The main conclusion of this paper is that both the United States and most of Western Europe, especially the euro area, face significant and persistent problems in significantly and rapidly reducing large existing margins of slack and in restoring their economies to growth paths similar to those that prevailed on average for the quarter century before the great recession. There are important similarities between the problems facing the United States and the euro area, notably in the need for medium-term fiscal consolidation, but there are also important differences. In particular, wide disparities in the economic problems faced by different euro area members, the constraints implied by a unified currency, and the absence of other powerful policy instruments to address regional disparities, makes the achievement of adequate medium-term economic growth especially difficult. I do not have a magical solution for these difficulties; they exist and to a considerable extent will need to be endured.

More generally, I will argue that sound economic policies can only play a limited role in improving medium-term growth prospects, either in the United States or Western Europe—although it is always possible for bad policy to make matters worse. Central banks must still act to help potential financial crises, but there is little room for traditional monetary policy (or quantitative easing) to affect the course of economic activity; and, at some point within the medium-term, monetary policies will need to move to significantly less accommodative stances. The public deficit and debt situations of the United States and most West European countries do not permit significant and sustained fiscal easing to promote economic expansion, and in many countries the immediate and continuing priority is fiscal consolidation. Structural reforms are often touted as the third and critical tool for promoting non-inflationary growth. No doubt, such reforms could be quite helpful in some cases. However, after thirty years of listening to and participating in discussions of structural reform, I remain skeptical about how much can and well be accomplished to boost meaningful growth in either the United States or Western Europe.

I. Recent Histories of Comparatively Sluggish Economic Growth

To set the stage for the discussion and establish some benchmarks for what might normally be expected for growth in the United States and Western Europe, it is useful to examine key data concerning the economic performance in the period from 1999 through 2007, preceding the great recession; see Table 1. This nine year period is selected because statistics for the euro area are conveniently available starting in 1999 and because the business cycles in the United States and Western Europe were at similar stages at the beginning and end of this period.[1] The two key conclusions from this examination are (1) that growth rates in this nine-year period were not particularly impressive by postwar standards and (2) Except for the United States, unemployment rates declined over the period, suggesting that

[1] It makes virtually no difference if the ten-year period from 1998 through 2007 is used. Similarly, the expansion of the euro area after 1999 to include five small countries (Greece, Cyprus, Malta, Slovakia and Slovenia) makes no appreciable difference for growth of the area as a whole.

growth rates of potential GDP were somewhat lower than growth rates of actual real GDP.

Table 1: U.S. and Europe, Real Growth and Unemployment Rate

Country/Area	Real GDP growth Annual average rate 1999 through 2007	Unemployment Rate, 1999	Unemployment Rate, 2007
United States	2.8	4.2	4.6
United Kingdom	2.8	4.1	2.7
Euro Area	2.2	9.3	7.6
Germany	1.6	10.5	7.8
France	2.2	10.4	7.8
Italy	1.5	10.6	6.1
Spain	3.6	15.9	8.3

With this as background, experiences in the great recession of 2008-09 and the initial stages of recovery through end 2010 are discussed, comparing and contrasting developments in different countries and regions. The general observation is that all countries suffered deep recessions and recoveries were generally disappointing in their initial stages, but there were some meaningful differences in the depth and timing of recessions and in the early pace of recoveries. For most countries, sluggishness in the initial stages of recoveries reflects factors that are likely to keep future growth rates relatively low.

II. Medium-Term Prospects for the U.S. Economy

Recoveries that followed deep U.S. recessions earlier in the postwar era (1957-58, 1973-75 and 1980-82) were typically quite vigorous, especially in their early stages. The recovery from the combined recessions of 1980-82 is particularly noteworthy in this regard. During the six quarters from the beginning of 1983 to the middle of 1984, real GDP rebounded at a 7.5 percent average annual rate and by almost 12 percent cumulatively. During this period the civilian unemployment rate fell from a postwar high of 10.7 percent to 7.2 percent. By the end of 1988, after six years of expansion, real GDP was up cumulatively by almost one-third and the unemployment rate had fallen to one-half of its peak level.

The recovery from the great recession of 2008-09 has been very sluggish by these earlier standards. After a sharp drop of 5 percent from its level at the end of 2007, real GDP began to recover in the summer of 2009. This was sooner than most forecasters had anticipated at the start of that year, including many who feared that the recession would continue to deepen well into 2010. Even for the relative optimists (like myself), however, the pace of the recovery since mid 2009 has been disappointingly slow. At the top end of all forecasters, I had anticipated that annualized real GDP growth during the first six quarters of the present recovery would average 4 percent, barely half of the pace in the initial six quarters of the Reagan recovery. Current estimates place real GDP growth at only a 3 percent annual rate over this period, and real GDP growth for the first half of 2011 is estimated at only a meager 0.7 percent annual rate.

For employment, the story is even more discouraging. During the recession, employment fell by even more than would normally be expected from the decline in real GDP, falling by 8.8 million (according to the Establishment Survey) from December 2007 to March 2010. The unemployment rate almost doubled from 5.3 percent in December 2007 to a peak of 10.1 percent in October 2009. In the recovery so far, employment is up by 1.9 million from its low and the unemployment rate is now running at 9.1 percent. Initially, the recovery of employment seemed somewhat sluggish in view of the sluggish recovery of output, but the results for the first half of 2011 show moderate employment growth despite exceptionally sluggish output growth. In related developments, estimates of labor productivity growth have turned negative this year and unit labor costs have shown significant increases.

Growth of U. S. Aggregate Demand

Many of the reasons why the present recovery has been so sluggish are reasonably well understood and have implications for the likely continued sluggishness over the medium term. Before turning to the reasons for sluggishness, however, it is useful to mention factors that weigh in the other direction.

Inventory investment has already staged its usual cyclical bounce-back from sharply negative to moderately positive levels. Further significant contributions to aggregate demand growth from this factor may not be expected. Also on the plus side, business investment in equipment and software has recovered fairly strongly in accord with its usual cyclical pattern, and further contributions to demand growth from such investment may reasonably be expected so long overall economic growth remains at least moderately positive. Investment in nonresidential structures has, as usual, lagged in the initial stages of recovery, but may be expected to pick-up again as the recovery proceeds, aided by a low cost of capital. U.S. exports have grown strongly as volumes of world trade bounced-back from very large declines during the global recession.

U.S. imports have also increased during the recovery, but the rise in exports has been sufficiently strong that the deterioration of real net exports subtracted only ¼ percentage point from real GDP growth—significantly less than in most U.S. recoveries. The competitive foreign exchange value of the U.S. dollar, along with continued fairly strong growth in key emerging market economies, will support U.S. export growth. Meanwhile, continued subdued growth of domestic demand will slow growth of imports relative to what normally happens during a U.S. economic expansion. The result will likely be U.S. real net exports will deteriorate less than in past expansions, implying less of a drag on U.S. real GDP growth, and retarding the re-emergence of one of the important imbalances that characterized past expansions.

Turning to factors that have retarded the recovery, consumption spending has grown quite slowly in the present expansion. During the expansion from 2001 through 2002, consumption spending was boosted (beyond gains in disposable income) by rising household net worth, especially that coming from rising home prices--which doubled in real terms between 2001 and their peak in mid 2006. The drop in home prices since their peak (mainly during the recession) has reversed two-thirds of their earlier unsustainable increase. The decline in this important component of household net worth, along with more moderate declines in equity values, have weighed down on consumption and helped to prompt an increase in household saving rates from about 2 percent just before the recession to 5 to 6 percent recently.

Looking ahead, it may be anticipated that consumption spending will rise as GDP rises but at a somewhat lower percentage rate, implying that the ratio of consumption to GDP will decline at a modest pace. Home prices are unlikely rise significantly and the value other components of household net worth will probably not rise sufficiently rapidly to drive increases in the ratio of consumption to disposable income. The old practice of extracting equity from homes through mortgage refinancing in order to support consumption spending will not revive anytime soon. Meanwhile, household disposable income will rise more slowly than GDP because governments will be increasing tax collections and reducing transfer payments as part of their efforts to re-establish fiscal sustainability.

The collapse of the housing bubble has also been reflected in the depression of residential investment, which fell by 57 percent from its peak at end 2005 to mid 2009. Moreover, unlike past recessions that have seen strong rebounds of residential investment in their initial stages, the present recovery has featured no such rebound. Indeed, at mid 2011, two years after the general recession trough, real residential investment was off by a further 3 percent. In comparison, during the combined recessions of the early 1980s, real residential investment fell by 42 percent from its peak in late 1978 to the end of 1982 and then recovered 85 percent of the ground lost over the next two years.[2]

The prolonged depression of residential investment in the present recovery reflects primarily the consequence of the bubble in house prices and its subsequent collapse—developments that were not a significant feature of earlier boom and bust cycles of residential investment at the national level. The drop in home prices since mid 2006 (by about one-third according to the Case/Schiller index) left millions of homeowners with mortgage debt greater than the value of their properties. This, together with the rise of unemployment and drop in incomes associated with the recession, lead to widespread defaults and to foreclosures and threatened foreclosures of a scale not seen since the Great Depression of the 1930s. Significant reductions in mortgage interest costs engineered by the Federal Reserve and by the Treasury through its control of the mortgage giants Fannie Mae and Freddy Mac have been unable to propel recovery in the housing market as would otherwise have been expected. Other official efforts to ease problems for distressed homeowners have enjoyed only modest success.

[2] I place the recession trough in the early 1980s in the fourth quarter of 1982. This is consistent with the dating of the cyclical trough in November 1982 and with original estimates that real GDP (in 1972 dollars) fell between the third and fourth quarters of 1982. Later estimates of real GDP (using different bases for real dollars) generally slow a small increase in real GDP between the third and fourth quarters of 1982. In accord with the usual cyclical pattern the peak for residential investment care significantly before the general peak in economic activity preceding the 1980 recession.

All of this is painful and costly to the millions caught up in the housing crisis, including the holders of mortgages on distressed properties. There was, however, no viable alternative to most of this pain and cost once the housing bubble had been inflated. House prices needed to decline substantially to realistic levels, and process of foreclosure, with all of its inefficiency and messiness, is the principal means available to deal with situations where homeowners are unable to meet their mortgage commitments. On the whole, it is positive that this necessary correction is occurring much more rapidly during the present episode in the United States than did a similar necessary correction in Japan during the 1990s. Nevertheless, the correction in the United States still has a considerable distance to go and it will be a burden on recovery of residential investment for some years to come.

That said, it is important not to be too gloomy about the contribution that recovery of residential investment can make to overall recovery in the medium term. At the present rate of about 600,000 units per year, new homebuilding is barely sufficient to keep up with the rate of depreciation of units out of the existing housing stock. Normally, formation of new independent households adds 1 to 1.2 million per year to demand for the housing stock. During the great recession, this situation reversed as economic pressures lead some independent households to combine (e.g. young adults moving back in their parents) and some households that would ordinarily have separated not to do so. As economic conditions gradually improve, we may expect the number of independent households to resume growing, thereby absorbing homes presently vacant and adding to the demand for new housing units. Looking ahead 6 to 8 years, it is reasonable to expect that annual new homebuilding will recover to 1.5 to 1.8 million units, although perhaps not to the peak of over 2 million in 2005. This would add about 3 percentage points to aggregate demand (plus any multiplier effects).

As U.S. households slow their own consumption, their demand for government services. This is a key force behind the continuing downward pressure on expenditures and employment in State and local governments. During the first two years of recovery, increased transfers from the federal government have helped to blunt the decline in State and local spending, but these transfers are eroding and will erode further in the context of efforts to reduce the federal deficit. Purchases of goods and services by the federal government, including those for national security, will likely be on a downward path under the pressures for substantial deficit reduction.

During the long expansion from late 1982 to the summer of 1990, real government purchases rose by 31 percent, making a significant contribution to aggregate demand growth during that expansion. During the long expansion from early 1991 through 2000, pressures for deficit reduction helped to contain the cumulative rise in real government purchases to 11.7 percent. In the present expansion, the most recent GDP data indicate that real government purchases reached a peak (for total government and separately for federal and State and local) in mid 2010 and have been declining for the past year. Such declines will probably continue for a while, but in the medium term we are likely to see a resumption of positive growth, at least in the State and local sector. Nevertheless, it is reasonable to project that growth rate of government purchases over the medium term will be less than 1 percent and possibly not much greater than zero.

In sum, looking at the forces driving growth of aggregate demand over the medium term, it seems extremely unlikely that the present expansion could match the 4.2 percent annual growth rate of the long expansion from late 1982 through the summer of 1990, or even match the 3.6 percent average annual growth rate of the long expansion from early 1991 through 2000. Indeed, even a projection of average annual real GDP growth of 3 percent over an expansion lasting another 6 to 8 years seems a little on the optimistic side.

The simple arithmetic supporting this conclusion works out as follows: If real GDP is growing at 3 percent per year, then it is reasonable to suppose (consistent with a gradually declining share of consumption) that real consumption spending would rise at 2.5 percent per year. This implies that consumption would contribute 1.9 percent per year to aggregate demand growth. Real government purchases rising on average at a very sluggish 0.5 percent annual rate contribute 0.1 percent to aggregate demand growth. With an eventual recovery in residential investment, it is reasonable to suppose that real fixed investment would rise at an annual average rate of 8 percent over the medium term. This implies a contribution of 1 percent to the annual growth rate of aggregate demand. With inventory investment making no net contribution, all this would imply aggregate demand growth of 3 percent per year—assuming that real net exports remained flat. Powerful export growth might achieve this latter result, but a more plausible assumption is the real net exports would subtract a modest amount from annual average aggregate demand growth.

The Behavior of U.S. Aggregate Supply

Consideration must also be given to likely developments on the supply side of the U.S. economy. This involves assessments of (1) the size of the present output gap (the difference between potential output and actual output resulting from under-utilization of productive resources), (2) of possible restraints or enhancements to the speed at which the output gap might be closed, and (3) of the underlying rate of potential output growth implied by trend labor force growth and by the rate of productivity increase.

The large declines in output and employment during the great recession and their subsequently very sluggish recoveries would normally suggest a large remaining output gap. In other words, there should be great deal of room for the U.S. economy to expand in response to rising demand, without raising concerns about supply constraints and associated increases inflation pressures. Unfortunately, there are significant problems on the supply side of the U.S. economy that work against this normal expectation, implying that the continued likely sluggishness of the U.S. expansion is not exclusively a problem of weak demand growth.

These supply-side problems include the mismatch between the skills of workers who are unemployed (or have left the labor force and would normally plan to return) and the skill needs in areas where the U.S. economy will now be expanding. Most prominent in this regard is the displacement of large numbers of construction workers. Employment for construction workers (seasonally adjusted) peaked 7.72 million in early 2007 and was down modestly to 7.49 million by December 2007. Employment fell to 6 million during the recession (to June 2009) and has subsequently fallen by 470 thousand. In comparison, total employment, which was 138 million at the start of the recession, fell to a low of 129.2 million in early 2010, and has subsequently recovered by 1.9 million. Thus, out of a total employment decline of 6.7 million from the start of recession to date, fully one-third (2.2 million) is accounted for by construction workers—a sector that compromised only 5.7 percent of total employment at the start of the recession.

The loss of jobs in the construction sector is varies considerably across sub-sectors. Employment in residential construction (including specialty trades) has fallen 42 percent from its peak of 3.4 million in 2007. Employment in construction of nonresidential buildings (including specialty trades has fallen 21 percent for its peak of 3.6 million in 2008 to date. Employment in heavy construction and civil engineering as fallen 15.5 percent from its peak during 2008 to date (including a small gain over the past year).

This sub-sector breakdown is important because many construction workers are fairly highly skilled and highly paid and are not especially mobile across sub-sectors. The carpenters, electricians, painters, plasters, plumbers, etc. that predominate in residential construction are not the same as the steel workers and crane operators who erect tall buildings or the heavy equipment operators used heavily in civil engineering projects. A key policy implication is that while federal financing to help support public investments by State and local governments have been effective in reducing job losses among some categories of construction workers (especially in heavy construction and civil engineering) they do not provide a useful solution for many construction workers who are no longer employed. General recovery of employment in construction will need to await recovery of private investment in residential and non-residential structures—a process that will take considerable time.

Another noteworthy feature of the employment situation in the United States is the distribution of employment losses among workers with different levels of educational attainment. Data on this subject, as reported in Table 2, come from the Household Survey and refer to adult workers 25 years of age and higher. Comparing the situation today with than on the eve of the great recession, it is notable that employment for those with a college degree or higher risen by 3.3 percent, while employment less educated categories is down significantly (by 3.5 percent for those with some college, by 8.6 percent for those with only a high school degree, and 13.1 percent for those with less than a high school education). Unemployment rates are up for all levels of educational attainment, but at 4.4 percent the rate for those with a bachelor's degree or higher suggests that margins of slack are moderate. In contrast, unemployment rates of 8.4 percent, 10.0 percent and 14.3 percent for the other three groups (in descending order of educational attainment) indicates that most of the labor market slack is among such workers.

Table 2: Adults 25 years and over, by Educational Attainment, Number Employed (thousands) and Unemployment Rate (percent)

Education Level	Dec 07	Dec 08	Dec 10	June 11
Less than H.S. Employed	11,358	10,144	9,963	9,768
Unemployment rate	7.6	15.3	15.3	14.3
H.S. only Employed	37,034	33649	34,465	33,863
Unemployment rate	4.7	10.5	9.8	10.0
Some College Employed	34,924	33,560	33,821	33,708
Unemployment rate	3.7	9.0	8.1	8.4
B.A. or higher Employed	43,476	43,707	44,095	44,894
Unemployment Rate	2.2	5.0	4.8	4.4

These facts raise three related concerns. First, as the U.S. economy recovers and the aggregate demand for labor rises, shortages may develop in supplies of highly educated workers while substantial slack remains for those less well educated. This will tend to constrain the pace of expansion. Second, as total employment expands with re-employment of the unemployed and those who have left the labor force, the productivity of the workers who are added is likely to be lower on average than that of those already employed. This will tend to lower overall labor productivity growth and hence the potential growth rate of the economy. Third, holding wages constant, slower labor productivity growth implies direct upward pressure on unit labor costs. Also, the quest to employ more highly educated workers will like place upward pressures on wages for such workers, adding to upward pressures on unit labor costs. And, all of these problems will likely be exacerbated by the deterioration in work skills often associated with prolonged unemployment, as well as by the unusual impediments to geographic labor mobility arising from the housing crisis.

Economic policies can help to address some of these supply-side concerns, but one should not expect a great deal in this regard. Workers need to adapt to the changing needs of employers and employers need to provide training or adapt work demands to take account of the skills of the available labor force. These processes have been ongoing throughout the history of the U.S. economy, and in general they have functioned effectively to align worker skills with job requirements. The displacement of large numbers of workers during the great recession and the transformation of the

U.S. economy underway in the present expansion obviously put greater than normal strain on these essential adjustment processes. But, the existing mechanisms (which involve substantial government involvement especially at the State and local levels) will continue to function and may be expected to perform reasonably well. The policy issue is—what additional might usefully be done? The usual recommendation is more federal programs to retrain unemployed workers for jobs in the expanding areas of the economy. Unfortunately, the history of federal programs to train the unemployed (extending back to the 1960s) is not a very happy one. Part of the reason probably is that those who are most likely to benefit from retraining seek and obtain it through other means, leaving the federal programs with those for whom retraining is least likely to be successful.

Supply-side concerns also have important implications for the usefulness of demand-side policies, especially monetary policy. The Federal Reserve eased monetary policy aggressively and appropriately to combat the great recession and the financial panic of late 2008 and early 2009. Fears that low core inflation might turn into deflation and concern about the sluggish pace of recovery motivated further easing in the QE2 operation begun in the autumn of 2010. More recently, the Federal Reserve has indicated its intention to keep the federal funds rate near zero at least to the middle of 2013 and has announced measures to lengthen the maturity of its holdings of U.S. Treasury obligations. In taking these latest actions the Fed has taken the view that, although core inflation has recently risen to near its implicit target, large margins of slack and continued sluggish recovery imply that inflation is unlikely to accelerate to a worrying rate anytime soon. Supply-side developments raise questions about the wisdom of this policy.

Weakness in residential investment which has been a key impediment to more rapid recovery has not responded as it has in the past to monetary easing because of the structural problems in the housing sector. Further monetary easing is unlikely to provide much stimulus through residential investment for the same reason. Other components of aggregate demand have typically not been very responsive to movements in interest rates, suggesting that there is little that further monetary easing can contribute enhanced output and employment growth. On the other hand, problems with aggregate supply may mean that significant inflationary pressures are nearer at hand than models relating inflation primarily to the output gap would suggest. Indeed, over the past year, the core inflation rate has picked up from under 1 percent to nearly 2 percent despite a continued large margin of slack—contradicting directly the model of inflation used by the Federal Reserve. Clearly, the output gap does not always dominate the determination of the inflation rate (or changes in the inflation rate). Perhaps the downturn of labor productivity and the increase in unit labor costs during the first half of 2011 have something to do with the rise in core inflation. If so, we may be seeing early evidence that supply-side concerns will constrain monetary policy.

Supply-side issues reinforce the earlier conclusion that the pace of growth of the U.S. economy over the medium term is likely to be significantly more sluggish than during the long expansions of 1982-1990 and 1991-2000. Specifically, consideration of demand-side factors suggests that if the recovery is sustained over the next 6 to 8 years, we might reasonably expect an annual real GDP growth rate of a little below 3 percent.

Supply-side considerations suggest that we might reasonably expect annual employment growth of 1.6 percent per year, about half from the increase in the working-age population and about half from re-employment of the unemployed and of those that have left the labor force. Over eight years, this would be consistent with a rise of almost 19 million in (the Household Survey measure of) employment and with a gradual reduction of the unemployment rate to about 5 percent.

Problems on the supply-side of the economy suggest that labor productivity growth will be more sluggish than in recent expansions. Specifically, in the expansion from 1982 to 1990, overall labor productivity defined as the ratio of real GDP to total (household) employment increased at a 1.7 percent average annual rate. During the expansion from 1991 through 2000, this measure of labor productivity advanced at a 2.1 percent average annual rate. During the expansion from 2001 through 2007, labor productivity advanced at a 1.5 percent rate. In view of the supply-side problems already discussed, it is plausible to suppose that if the present expansion survives for another 6 to 8 years, labor productivity will advance at a 1.2 percent average annual rate. This implies that potential GDP would rise at about a 2 percent annual rate—given by the sum of normal labor force growth and labor productivity growth. The implied growth rate of aggregate supply, which includes the effect of a declining output gap, would be 2.8 percent. Thus, the story told about aggregate supply over the medium term is broadly consistent with the story about aggregate demand.

Of course, the numbers describing likely medium-term growth rates for aggregate demand and aggregate supply of slightly below 3 percent are subject to significant margins of error. And, there is no guarantee that the present expansion will proceed uninterrupted for another 6 to 8 years. Nevertheless, I believe that these estimates consistent with the most reasonable expectation that medium-term growth for the U.S. economy will be somewhat more sluggish than in recent expansions but not catastrophically so.

III. Medium Term Growth Prospects for Western Europe

The advanced economies of Western Europe face many of the same challenges for medium-term growth as the United States, plus others. As noted earlier, real GDP growth in Western Europe and the United States during the reference period 1999 though 2007 was already slower than the growth rates achieved earlier in the postwar era. It is reasonable to expect that most of the factors than contributed to this general slowing of growth will continue to operate in the period ahead for Western Europe as well as for the United States. Gradual elimination of large margins of slack will likely provide some boost to growth rates over the medium term, but other forces impeding economic progress will weigh against and possibly outweigh this effect.

The United Kingdom, Sweden and Switzerland

Before turning to the Euro Area, it is useful to examine the situation in the United Kingdom, followed by a brief discussion of Sweden and Switzerland. The U.K. enjoyed sustained economic expansion from 1993 through 2007 achieving a 2.8 percent average annual growth rate (the same as during the nine year reference period from 1999 through 2007). Although inflation remained well contained over this period, other important imbalances developed in the U.K. economy. Even with the benefit of long expansion, the structural fiscal deficit reached about 3 percent of GDP in 2007. Rapid growth of the financial services industry became a key driver of general economic expansion, as well as of a housing boom focused in the area around London. The real effective foreign exchange value of sterling appreciated considerably, contributing to persistent weakness in the manufacturing sector. Despite substantial net earnings from financial services, the current account deficit stood at 3 percent in 2007.

With the great global recession and the associated financial crisis, the imbalances that developed during the long expansion have come to the fore. The financial services industry has suffered a serious set back from which it will not soon recover. The housing boom has ended, and although the situation is not as dire as in the United States (or, even more so, Ireland and Spain), recovery in this sector will be a painful and drawn out process. The fiscal deficit ballooned as the economy fell into recession and the old Labour government initially resorted to significant fiscal stimulus. Aggressive reversal of this policy by the new Conservative/Liberal coalition has clearly put significant (temporary) downward pressure on economic activity. One bright spot (at least from the perspective of the U.K.) is the substantial real effective depreciation of sterling since 2007. On the other hand, since 2007 inflation has been running above its announced target and appears likely to continue to do so for at least another year. The Bank of England has essentially ignored this problem and has maintained an exceptionally easy monetary policy to support the economy. Before much longer, however, monetary policy will need to respond to concerns about inflation, lest the whole notion of an "inflation target" for U.K. monetary policy become a bad joke.

Looking to the medium term, fiscal consolidation will continue to depress aggregate demand for at least the next year or two, but then should become essentially a neutral factor. For some of the same reasons as in the United States, growth of consumption spending is likely to remain subdued (but still positive) in the U.K. Business investment should do relatively well as the manufacturing sector continues to expand, but with some worries about the impact on the U.K. of a prolonged slowdown in most of the rest of Western Europe. As with the United States, it is reasonable to assume that real net exports will not make a significant contribution, positive or negative, to real GDP growth in the U.K. All told, after the substantial output losses during great recession and the stagnation of the past two years, it is probably reasonable to expect a medium-term growth rate of about 2.5 percent. This is broadly consistent with a potential growth rate of about 2 percent and with a gradual reduction of the unemployment rate toward 5 percent.

Sweden is interesting its economy has performed quite well relative to most of Western Europe since the mid 1990s. The economy grew at a 3 percent annual rate during the reference period 1999 through 2007, almost a percentage point better than the euro area. With its relatively large manufacturing sector, the Swedish economy was hit fairly hard during the great recession, but the subsequent recovery has been reasonably strong and the unemployment rate is already down 1.7 percentage points from its recession peak and barely 1 percent above its pre-recession level.

The relatively good performance of the Swedish economy reflects, to an important degree, the sound management of economic policy before, during, and after the great recession. Lessons were well learned from the trauma following the collapse of the credit and housing bubbles in the early 1990s and the need to rein in the excesses of Sweden's welfare state. Since then, the government has run a very responsible fiscal policy, leading to budget surpluses in the years before the great recession. This allowed some room for fiscal support at the depths of the recession, while not leaving a need for aggressive fiscal consolidation in the present recovery (as is needed in many other European countries). Sound management and supervision of Swedish banks (recognizing the bitter lessons of earlier experience) allowed them to avoid much of the distress that affected financial institutions in other countries. Also, the flexible exchange rate of the Swedish krona, especially against the euro, allowed the exchange rate to absorb some of the stress from the great recession and the associated collapse of world trade—an adjustment mechanism not available to members of the euro area. Recent upward pressures on the exchange rate of the krona suggest that this may become more of an impediment to economic growth. Looking at the supply side of the Swedish economy, because the margin of slack in the Swedish economy is not very large, it should be expected that growth over the medium term will be near to the potential growth rate, plausibly about 2.5 percent.

Switzerland provides a useful comparison with Sweden. Economic growth was quite good (at a 3 percent annual rate) during the four years immediately preceding the great recession, but was somewhat disappointing before that. Fiscal policy was soundly managed, and there is no need now for significant fiscal consolidation. Swiss banks (especially the two very large banks) did absorb major losses during the global financial crisis, but these losses were primarily associated with their international operations—not their operations inside Switzerland. The Swiss authorities dealt with these problems without significant cost to the taxpayer or to the Swiss economy. Subsequently, bank regulation (especially capital standards) have been improved to an extent that significantly exceeds the accomplishments of other countries. Quite rightly, the Swiss authorities are not worried that this strengthening of bank regulation will impede growth of the Swiss economy.

Like the Swedish krona, the exchange rate of the Swiss franc has been flexible, at least until quite recently. Switzerland gained some room for maneuver from this exchange rate flexibility which helped to shield its economy from the great recession. More recently, however, the exchange rate has become a problem as the Swiss franc has appreciated very strongly against other currencies, most notably the euro. It remains to be seen how much this appreciation will slow the growth of the Swiss economy, but it seems prudent to suppose growth in the period ahead will not match that immediately preceding the great recession but will likely be in the 1.5 to 2 percent range.

The Euro Area, Demand and Supply Side Considerations

Turning finally to the situation in the Euro Area, as reported in Table 1, real GDP grew at a rather sluggish a 2.2 percent average annual rate during the nine years preceding the great recession. France (the second largest economy) performed at this average, but Germany and Italy (the largest and third largest economies) grew one-half percentage point below the average. Spain (the fourth largest economy) enjoyed stronger-than-average growth at a 3.6 percent annual rate. Some of the smaller members of the euro area (Finland and especially Ireland) also grew more rapidly than the average, while Portugal lagged behind.

During the reference period 1999 through 2007, real domestic demand in the euro area grew at essentially the same average annual rate as real GDP: see Table 3. Correspondingly, there was relatively little change in the current account of the euro area, which improved from a modest deficit of 0.5 percent of GDP in 1999 to balance in 2007. For individual members of the euro area, however, differentials between growth of output and growth of domestic demand were significant. Germany shows very weak growth of domestic demand, only 1.1 percent per year, reflecting primarily very weak growth of consumption. Italy has slightly stronger growth of domestic demand than of output; whereas France has modestly stronger growth of domestic demand than of real GDP. Spain recorded 4.2 percent annual growth of real domestic demand versus 3.6 percent annualized growth of real GDP.

Table 3: Output and Demand Growth and Current Accounts

Country/Area	Real GDP Growth rate, 1999 to 2007	Domestic Demand Growth rate, 1999 to 2007	Current Account Share of GDP, 1999	Current Account Share of GDP, 2007
United States	2.8	3.1	- 3.2	- 5.1
United Kingdom	2.8	3.2	- 2.4	- 2.6
Sweden	3.0		3.5	8.6
Switzerland	2.1		11.6	9.9
Euro Area	2.2	2.2	- 0.5	0.1
Germany	1.6	0.7	- 1.3	7.5
France	2.2	2.5	3.1	- 1.0
Italy	1.5	1.7	0.7	- 2.5
Spain	3.6	4.2	- 2.1	- 10.0
Netherlands	2.3		4.3	7.6
Belgium/Lux.	2.6		4.2	1.6
Austria	2.3		- 2.8	3.1
Finland	3.5		5.9	4.1
Greece	4.1		- 4.1	- 14.2
Portugal	1.4		- 8.7	- 9.4
Ireland	7.5		0.6	- 5.6

These differentials between the growth of real GDP and real domestic demand are reflected, of course, in the evolution of current account balances. In 1999, the euro area as a whole had a small (about 0.5 percent of GDP) current account deficit, and in 2007 the current account was essentially balanced. Germany had a moderate current account deficit in 1999, amounting to 1.3 percent of GDP. In 2007, this had been transformed into a large surplus equivalent to 7.5 percent of GDP. This rise in the Germany's surplus was offset by deterioration of the current account balance of the rest of the euro area. In particular, France went from a surplus of 3.1 percent of GDP to a deficit of 1 percent of GDP. Italy went from a surplus of 0.7 percent of GDP to a deficit of 2.5 percent of GDP. Spain's current account deteriorated massively from a deficit of 2.1 percent of GDP to a deficit of 10 percent of GDP.

Closely related to these developments was the rapid gain in cost competitiveness of German manufacturing relative to manufacturing in the rest of the euro area. Comparatively rapid increases in labor productivity in German manufacturing, combined with comparatively sluggish wage growth, induced about a 20 percent decline in unit labor costs in Germany relative to those in the rest of the euro area. These gains in Germany's cost competitiveness were more modest vis-à-vis France, but were greater than the average vis-à-vis Italy and Spain. Taking account the real exchange rates among national precursor currencies when the euro was introduced in 1999, it is fair to say that Germany's real exchange rate started out somewhat overvalued, while the real exchange rates of Italy and Spain were initially somewhat undervalued. Developments in the current account balances of euro area members, as well as in labor productivity and wages, indicate that this initial disequilibrium was more than reversed by 2007.

The euro area as a whole was hit fairly hard during the great recession, with real GDP falling about 5 percent. The subsequent recovery has general been quite sluggish but substantial disparities in the performances of different countries. Clearly, there are important issues about medium-term growth prospects for each of the member countries. Greece's problems, in particular, have been a central focus of concern since early last year. More generally, fears about the fiscal sustainability of several euro area members and the spillover effects onto European banks and more broadly to the world economy and financial system have dominated recent debates about economic policies and even about the future of the euro area itself.

The purpose here, however, is not to delve deeply into these very important and immediate concerns. Instead, it will be assumed that current difficulties are resolved without a major systemic breakdown of the euro system or the euro area financial system. Even with continued substantial official assistance, Greece will need to restructure its sovereign debt (but will not leave the euro), and the Greek economy will face a long and painful adjustment to gradually restore its competitiveness and return to reasonable rates of economic growth. Ireland and Portugal, the two other euro area countries now receiving official assistance, may well be able to avoid sovereign debt restructuring and the more extreme difficulties of the Greek economy, but will nevertheless face prolonged periods of adjustment before economic activity comes substantially back toward its previous growth path. Beyond these three countries (which accounted for about 8 percent of euro area GDP in 2007), the considerations relevant for assessing medium-term growth prospects are more within the normal range.

Looking at the prospective growth of aggregate demand, it is important to focus first on growth of domestic demand, which was 2.2 percent during the reference period 1999-2007, the same as the growth rate for real GDP. Growth of domestic demand over the next 6 to 8 years is likely to fall significantly below this figure. Several members of the euro area, most notably Italy and Spain (in addition to Greece, Ireland and Portugal) will need to establish and maintain quite austere fiscal policies in order to persuade markets of fiscal rectitude. Elsewhere there is little or no room for fiscal expansion. Hence, we may expect both that increases of government purchases will contribute little to demand growth and that efforts of fiscal consolidation will weigh upon private spending.

In the period following the advent of the euro, interest rates converged downward toward German rates. This boosted spending (especially for residential investment) in those countries benefiting from this downward convergence. Reduction of fiscal deficits and public debt levels was also made easier. This process will not be repeated in the period ahead. Indeed, there will be a continuing need to work-off the excesses of housing booms in some countries (especially Ireland and Spain) and the likelihood is that at least some of the recent increases of interest rate spreads vis-à-vis Germany will prove durable, except in the unlikely event that the euro area becomes a full fiscal union.

Focusing next on the likely contribution of the external sector to medium-term growth of aggregate demand it is reasonable to expect something positive but not much. Import growth will be somewhat restrained by the weak growth of domestic demand, while euro area exports participate in the general expansion of world trade. However, unlike the reference period where the real exchange rate of the euro was highly competitive against the U.S. dollar and the U.K. pound for the first five years, the euro area enjoys no such competitiveness advantage today. Slight improvement of the euro area current account from a deficit of about 0.5 percent of GDP to a surplus of 0.5 percent of GDP may be reasonable. But this implies a contribution of only 0.1 to 0.2 percentage points to the annual average growth rate of aggregate demand in the medium term. Adding in a reasonable projection for growth of domestic demand suggests that the annual average growth rate of aggregate demand for the euro area in the medium term will be below 2 percent and perhaps as low as 1.5 percent.

Consideration of aggregate supply generally supports the conclusion of medium-term growth below 2 percent. Between 1999 and 2007, the unemployment rate fell from 9.2 to 7.6 percent, indicating that output and employment growth were absorbing significant slack during these nine years. The implication is that the potential growth rate in that period was below 2.2 percent, plausibly about 1.7 percent.

Growth of the euro area labor force arising from population growth and immigration looks likely to be no higher than in the reference period. There is no persuasive reason to believe that labor productivity growth will any higher than previously, and there are forces operating in the other direction. At 9.9 percent the present euro area unemployment rate is somewhat above the 1999 level, but it will likely prove difficult to reduce it rapidly to near its 2007 low. Germany's unemployment rate (now 7.0 percent) is already below its 2007 level (7.8 percent) and further significant reductions of German unemployment will be difficult to achieve. Despite its weak recovery, Italy's unemployment rate is now not much above its 2007 low. Exceptionally high unemployment in Spain (now 21 percent) reflects to a considerable degree the collapse in construction, and reducing unemployment to near 8 percent again will be a very daunting task. Similarly, reduction of the very high unemployment rates in Greece and Ireland to near their pre-recession lows is likely to be a very slow process at best. All together, it seems unlikely that reducing unemployment and margins of slack will add much more than 0.3 to 0.4 percent per year to the growth rate of aggregate supply over the growth rate of potential output.

Critical Divergences Within the Euro Area

Beyond the normal considerations of aggregate demand and aggregate supply, further important concerns about medium-term growth prospects for the euro area arise from disparities among members in their economic situations. In the debates that preceded the formation of the euro, it was emphasized (especially by skeptics of the euro) that the introduction of a common currency would eliminate exchange rate adjustments as a means for accommodating differing requirements for economic growth in different members, especially differing requirements for adjustments in international competitiveness. Proponents of the common currency generally argued that these problems would be limited by economic convergence before and after the introduction of the euro and by rules ensuring appropriate and cooperative behavior among the governments of the euro area. Experience before the great recession generally appeared to support the position of the euro's proponents. Subsequently, serious problems have arisen that appear likely to hamper economic growth

Current account imbalances are not always a sign of trouble but they can be. In particular, the (previously described) widening of current account imbalances among members of the euro area between 1999 and 2007, notably the large improvement in Germany's current account and the offsetting deterioration in the current accounts of other members (especially Spain) should have been seen as symptomatic of considerable potential trouble. Developments in the relative cost competitiveness of different euro members should have been seen as a related concern. Instead, euro area officials tended to emphasize that the overall current account of the euro area remained near balance and that the question of (real) exchange rates or payments imbalances among members were not really relevant for a common currency area.

During the great recession, the current account of the euro area moved briefly into moderate deficit, but most recently this deficit has shrunk to only about 0.5 percent of area GDP—the same as in 1999. The German surplus has fallen from its 2007 peak but is still about 5 percent of GDP. Spain's deficit has shrunk dramatically to about 4.5 percent of GDP, while France's deficit has remained essentially constant at 2.5 percent of GDP and Italy's deficit has grown to almost 4 percent of GDP.

By themselves, present payments imbalances of euro area members are not especially disturbing, but they are much more so when viewed in the contest of other economic developments. With its large manufacturing sector, the German economy was hard hit by the global recession and the collapse associated in world trade, and real GDP fell 6 percent. However, unlike most of the rest of the euro area, Germany has enjoyed a fairly strong recovery, with real GDP rising above its previous peak by early this year, and the unemployment rate now below its pre-recession low. Strong gains in German exports and associated gains in real net exports have driven this recovery, along with an important contribution from domestic demand. For the rest of the euro area real GDP is still about 2 percent below its pre-recession peak, and the unemployment rate is up from modestly form its peak during the recession and almost 3 percent above its pr-recession low. Domestic demand growth has been quite modest, and real export growth has been significantly less buoyant than for Germany. The cost competitiveness advantage of German manufacturers vis-à-vis the rest of the euro area has not diminished. The real exchange rate for Germany appears to be significantly undervalued relative to that of the rest of the euro area, especially Italy, Spain, Ireland, and Greece.

Starting from this situation, the question is—How can the euro area reasonably be expected to achieve a medium term growth rate as high as 2 percent? Already operating near potential, sustained growth of 2 percent or better may not be achievable for Germany. To achieve whatever is its maximum sustainable growth rate, growth of demand for German output will need to come primarily from rising domestic demand, not from rising net exports as was the case from 1999 to 2007. Indeed, for the rest of the euro area to achieve medium-term growth that modestly exceeds potential growth and allows for gradually falling margins of slack, it will probably be necessary for weak domestic demand growth to be supplemented by improvements in real net exports. Such improvement would clearly not be consistent with little change in the real trade balance of the euro area and continued significant growth of Germany's real trade surplus.

Significant adjustments in the relative competitiveness of different euro area economies will clearly be essential to achieve something close to medium term growth of 2 percent for the euro area. The relative cost competitiveness of most euro area countries needs to improve vis-à-vis Germany, in some cases very substantially. This will be required to redistribute improvements in net exports toward those member countries where margins of slack are high and constraints on the growth of domestic demand are likely to be tight. Germany and the Netherlands (and possibly Austria and Finland) will have to be on the other side of this adjustment process, with domestic demand growth somewhat outstripping output growth and with relative cost competitiveness gradually eroding versus other euro area members.

How might this adjustment process operate? David Hume suggested a key part of the necessary mechanism two and a half centuries ago. In those countries already operating near potential, with relatively buoyant growth of domestic demand, wages (and, to a lesser extent, prices) will be pushed up. In other countries where margins of slack are considerable and domestic demand growth is relatively weak, wages will decline or rise less rapidly. Over time, the necessary adjustments in relative cost competitiveness will be achieved. Economic policies should promote or, at a minimum, not impede these adjustments. However, even with the best of policies medium-term economic growth is still likely to be impeded by the need for substantial adjustments to correct critical divergences among members of the euro area.