REVIEW OF INTERNATIONAL ECONOMICS

Economic Agenda of the 21th Century

Special Issue: Review of International Economics

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REVIEW OF INTERNATIONAL ECONOMICS

Introduction to the Special Issue: Economic Agenda of the 21th Century*

Karl Aiginger

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Introduction to the Special Issue: Economic Agenda of the 21th Century

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The objective of this special issue is to establish an economic policy agenda for the earliest decades of the 21st century. In this volume, we seek to determine how the agenda will differ from it predecessors, and in what respects US and European economic policy is likely to vary. We will also venture a brief glance at the Japanese model. Three explicit attempts to define an agenda are complemented by papers addressing specific problems, some of which are relevant to both Europe and the US – such as competition policy and the new economy: Other challenges are pressing primarily in only one of the regions – such as the problems of aging and eastern enlargement in Europe, or the current account deficit in the US.

The first decades following World War II were dominated by an active and ambitious economic policy. Governments felt responsible for the acceleration as well as the stabilization of economic growth through fiscal and monetary policy. Trade boomed not only thanks to the formal processes of integration in Europe, as well in North America, but also as a result of world wide trade agreements. Incentives which initially promoted physical investment, and later encouraged innovation and research, were supply side policies intended to increase potential output and long run growth. Progressive taxation, taxes on property and inheritances (bequest), as well as government support of the poor, reduced income differences. Welfare

payments and comprehensive (often compulsory) insurance plans were installed to safeguard not only workers, but also the sick and aging against economic and social risks.

During the 1980s, economic policy turned towards a less activist approach. Monetarist economists or – as they were later called in Europe – neo liberal economists led the change from an activist to a more laissez fair or hands-off attitude. Economists proposed rule-based monetary policy, while parliaments tried to install safeguards against high and rising budget deficits. Anticyclical fiscal and monetary policy appeared doomed, not only as a result of theoretical considerations (rational expectations), but also due to issues of implementation (long lags) and most certainly the political permissiveness of not reducing deficits in good times, after having correctly accumulated them in bad times. As a consequence, the inflation rate and fiscal debt in relation to GDP both increased from cycle to cycle. Two oil shocks had increased inflation rate in Europe and the US, in the later case the Vietnam War further increased spending and inflation. Europe combined low growth with high inflation (stagflation), the productivity increase in the US declined from cycle to cycle leading to the discussion as to the reason of the "productivity slowdown".

The 1990s and the first years of the new century present a less clear cut picture. On the economic front growth of output and productivity accelerated in the US, inflation and unemployment decreased. Economic policy seems to have reached a pragmatic compromise, returning to an active macroeconomic policy, at least during times of low inflation and rapidly increasing productivity. The Fed is steering the economy by the means of an active monetary policy, supportive to growth, and cautiously but prudently reduces interest rates when private demand has lost momentum. Efforts have also been made to use fiscal policy as a means of increasing demand via tax reductions. There has not been much concern about the re-

emergence of deficits, even as the combined effects of automatic stabilizers, tax reductions and the costs of security and war have created deficits well beyond historic high water marks.

Europe has invested heavily into European integration, but growth rate does not accelerate. After decades of productivity catching up with the US, this tendency comes to a halt for GDP per capita. The difference in productivity widens for output per worker and per hour. The European Union itself sets rules for maximum deficits and debts, which limit the scope for anti-cyclical policy as well as for growth promoting programs. The reason for these somehow artificial rules in the European Stability and Growth Pact, was that fiscal debts had exceeded GNP in some countries and had risen in all. The European Union realized that the upcoming Monetary Union would need fiscal discipline in all countries, since the former instrument of recurrent depreciation to correct for past permissiveness would no longer be feasible. The EU demands that member countries liberalize their product markets and deregulate their labor markets – a course of action sometimes known in Europe as structural policy. The EU encourages research and tries to stimulate growth by means of infrastructure programs, although budgetary restrictions prevents really ambitious programs and allow nothing more than very cautious investment programs.

Both the US and Europe – albeit at different levels and with different degrees of comprehensiveness – are struggling with the increasing costs of an aging society, and the rising costs of healthcare, education and welfare. How comprehensive welfare systems should be, what the best incentives for work are, what forms remuneration should take, and how the unemployed can be best assisted are all questions presently under discussion in Europe. Welfare reforms are also being discussed in the US, upper limits for lifetime welfare payments have been set and medical expenditures for elder people will be extended.

Ecological problems and the dynamics of greenhouse gases are being debated at national and international levels, with diverging opinions as to when, how and by whom emissions should be curbed. Information and communication technologies have helped to bridge long distances and have contributed to fundamental changes in production, consumption and communication. New genetic technologies have been developed. Biotechnology now enables scientists to change the course of nature, including illness; although it is decisive to the development of life saving drugs, biotechnology is feared and opposed – to varying degrees in the US and Europe – because it is not yet possible to judge the potential of its long run consequences. Globalization is increasing the pressure to synchronize the rules of international investment, corporate governance, product labeling and competition policy.

This volume provides an overview of some of the problems mentioned. It compares economic performance, and highlights differences in economic structures and political response. The main focus is on the development of an adequate economic agenda, which takes performance and structural differences into account. Michael Boskin opens the issue with a definition of the US agenda. Karl Aiginger compares the economic performances of Europe and the US in the nineties and outlines a growth-oriented agenda for Europe. Kenneth Arrow starts from the perspective of the US, but continues farther, addressing problems which are relevant to both the US and Europe, creating an international agenda which includes questions of equity, development and sustainability.

Karl Pichelmann and Werner Roeger analyze the challenges of stimulating the European growth path. They investigate structural reforms in European product, labor and financial markets and the consequences of aging on output, per capita income and budgets. Jorgen Elmeskov focuses on the aging problem, its consequences for budgets and the options

available for solving the pension problem in Europe. Barry Eichengreen shows that the aging problem is related to other problems, insofar as it limits the scope for tax reductions, as well as expenditures on activities promotive of growth. He lists labor market reforms, the deregulation of product markets and financial consolidation as European problems, but reminds the reader that the US has a demanding reform agenda itself. He concludes that there is no reason why Europe should not be able to bridge the remaining difference in per worker and per hour productivity. Bruce Lyons analyzes changes in European competition policy and compares European and US merger rules in an area where transatlantic conflicts have already arisen and will probably intensify throughout the ongoing process of globalization. Catherine Mann puts her finger on one of the spending US problems: the re-emerging deficit in the US current account. The good news is that the US has a surplus in new economy services, and income elasticities reveal that this surplus is likely to increase and thus reduce the current account deficit. The bad news is that the magnitude will not be large enough to eliminate the current deficit entirely. Ulrike Schaede reminds Europeans and the US that unsolved structural problems may sooner or later result in a deep and long-lasting crisis, which will be difficult to solve, once it has started. Japan is not prepared for the transition from mass production manufacturing into a post industrial society. The structural reform of banks, companies, and regulation will be necessary, just as it will be important to develop a system of social security for the time when lifelong employment contracts have expired.

REVIEW OF INTERNATIONAL ECONOMICS

The Economic Agenda: A View from the U.S.*

Michael Boskin

Abstract: This paper surveys the agenda needed to restore non inflationary growth in industrial countries. The role of fiscal policy as short run stimulus both on the spending side as on the tax side is discussed. We comment on trade, specifically the new trade round, and international finance. Long run fiscal imbalances due to aging are analyzed, the role of fiscal institutions such as the European Stability and Growth Pact, the Japanese bad loan problem and structural problems are put into the perspective, that advanced economies should nurture their reforms globally as to provide successful examples of reforms and prove as helpful trading partners.

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The Economic Agenda: A View From the U.S.

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1. Introduction: The Economic Outlook

My topic is to discuss the priorities for the economic policy agenda confronting the major industrial countries. More specifically to give the U.S. view on the agenda. I am acutely aware that Europeans, especially in recent years, have become somewhat defensive and tired of hearing Americans tell them to emulate the American model, to change their economic policies, economies and societies to more closely resemble the United States. My view is that part of the solution to the problems of many of the economies of Europe (and Europe as an economic entity, to the extent it can be so described) would involve less intrusive government, more flexible labor markets, lower tax rates, less generous welfare, etc. But first I should say that the American economic model was never guaranteed to end business cycles, to preclude stock market bubbles, etc. That was always the wrong conclusion to draw. But the relief in Europe that the United States' recession took pressure off Europe to make reforms to bring their economies closer to the American model is the wrong, indeed, a somewhat dangerous, conclusion.

Among the reasons the United States has a smaller role of government than does Europe, less regulation, lower taxes, more flexible labor markets, and less generous welfare, is the fact that the experiment the Europeans ran with the great expansion of

their welfare states provided a window on the future viewed, say, from the U.S. in the 1970s heading into 1980. There was a growing consensus that it would be wise for the United States to slow the growth of government. One can argue the justice of the two approaches or whether the view that superior U.S. performance reflects less government is fully supported by economic evidence rather than political ideology. My view is that a large part of the reason the United States was relatively successful in growth and employment compared to Europe is that the U.S. managed to limit the role of government to about one-third of the economy rather than the one-half or so that is more common in European countries.

I do not mean to suggest that the apparent economic consequences of a 50% difference in the size of government relative to GDP is really dispositive about whether we ought to have a couple of percentage-points smaller or larger relative share of government for the United States, although I believe it is instructive. Let me begin with the items enumerated in Figures 1 and 2, the current and prospective state of the economies in the United States, Europe, Japan and the LDCs, and then turn to the priority for economic policy for the U.S., Europe and Japan. Growth in 2002 ranged from anemic to slow in the advanced economies. Prospects for 2003 and 2004 are only slightly better, especially given the early stage of the economic recovery. Not surprisingly, then, the overwhelming priority is to focus on policies, in the short run monetary policy but structural policies as well, to strengthen noninflationary growth.

INSERT here: Figure 1. Latest real GDP growth rates for the G7 countries

INSERT here: Figure 2. Blue chip international consensus forecast

These policies would strengthen global trade and be good for the United States, Canada, Europe, Japan and the developing world, in both a cyclical and a structural sense. American policy makers are constantly surprised at the willingness of the European and Japanese populations to put up with poor economic performance: in the case of Japan, a horrible lost decade, in the case of Europe, slow growth and huge populations on some form of transfer payments.

I will comment very briefly in turn on the role of monetary policy, the Federal Reserve (FED), the European Central Bank (ECB), the Bank of Japan (BOJ) and the risk of deflation. Then I will comment on the role of fiscal policy in short-run stimulus, a subject of much debate at the moment in the United States, both on the spending side and the tax side. I will then turn to long-run fiscal imbalances due to aging, fiscal institutions and structural problems such as the growth and stability pact and the Japanese bad loan problem. I will then comment briefly on trade, the new trade round, and international finance. For brevity, I will skip energy and the environment and micro-economic policies such as regulation and antitrust. These are important issues on which we need a real dialogue. The main issue is noninflationary growth. Each of these policies can play a role. But if I were asked to prepare a list of ten priorities, stronger noninflationary growth would be reflected in the first nine items.

As Figure 1 demonstrates, the only G7 countries with nontrivial growth the past year have been Canada (helped by strong U.S. auto sales) and, to a lesser extent, the United States. Every other G7 country has had sluggish growth at best. The U.S. is coming out of a recession, growing slowly in what can only be described as a sluggish recovery by historical standards. And if you look at the structure of the recovery, the

economy is basically in a race between consumers keeping the economy going long enough for business firms to get their business models reworked to restore profitable growth long enough to start increasing capital spending again, before the trade deficit deteriorates. That is a high wire act, so I think there is some nontrivial risk on the down side.

Germany is at or near recession again, as are Italy and France. Japan had a decent quarter, but growth was trivial for the last year (there are a lot of problems with quarterly Japanese data and their seasonal adjustment.) The Japanese have been in and out of recession for a decade. Growth has been sluggish in the U.K.

Prospects for 2003 and 2004, reported in Figure 2, are for a slow recovery by historical standards in all of the G7 countries.

2. The Relative Performance of the G7 Economies

Europe has very high unemployment, as Figure 3 demonstrates despite the usual issues of measurement and comparability. This was even true during the late 1990s boom, as well as in the recent slowdown. There are many reasons for this – the inflexibility of the labor markets, for example. But the structure of the economies and economic policies in Europe leave a much larger fraction of the population dependent upon relatively generous transfer payments from the government than we have been willing to accept in the U.S., where there is a thicker lower tail of (after-tax and transfer) poor outcomes. Transfer payments in the U.S. are at a relatively lower level, compared to after-tax wages. There are numerous channels through which these decisions hamper the aggregate performances of Europe's economies, whatever their other putative justifications. For

example, potential GDP growth is assumed to be so low that inflation pressure is deemed to occur in what in the U.S. would be a sluggish economy, thereby constraining the monetary policy of the European Central Bank (ECB).

INSERT here: Figure 3. Latest unemployment rate for the G7

As Figure 1 showed, there is a consensus that we are likely to experience sluggish growth everywhere in the G7 over the next year. Hopefully these forecasts will prove to be too pessimistic. Less than one percent growth in the world's second largest economy, Japan, which is primarily a services economy, is a serious problem for other economies as well. It means the industrial part of Japan is still shrinking. Two percent growth is considered decent in Germany and France. By recent European standards this may be true, but it is sluggish growth coming out of a synchronized worldwide downturn, a recession in the U.S., and recession or near-recession in the other large economies. Figure 4 looks at GDP growth for the G-7 countries for the last dozen years, starting with the asynchronous business cycle in the early 1990s. The U.K., Canada and U.S. went into recession in early to mid-1990 and recovered in 1991. Remember the "it can't happen here" happy talk in Europe (and Japan) as EC 92 approached? By 1993, there were problems or recessions in Germany, France and Italy, and Japan. Importantly, these economies benefited from the fact that some of their major trading partners were still growing. For example, U.S. real exports grew during and in the early aftermath of the 1990-91 recession. That has not been true in the recent recession and recovery and thus net exports have not done much for growth.

Figure 5 reports real per capita GDP for the G7 countries. It is well known that the U.S. has the highest real GDP per capita. There are issues about how to measure the

purchasing power parities (PPPs). But there is close to convergence in the other G7 countries, the large gap with the United States being the major outlier. The earlier trend toward convergence in GDP with the U.S. stopped in the early 1980s.

One can decompose the differences in GDP per capita into the differences in productive efficiency and the differences in inputs. Productive efficiency – hat each of these countries could produce if they had, for example, U.S. inputs such as hours of work and employment rates – has roughly converged for the other six G7 countries at levels well below U.S. levels. What could these countries produce if they had U.S. inputs and the same population? My own research (Boskin and Lau, 2003) reveals that the continental Europeans could increase output by 25% or more with U.S. labor market conditions. The continental Europeans may not want to have U.S. labor market conditions. They may think there is too high a price to pay to reduce unemployment and welfare. But the basic point is that Europe is paying a very high price indeed for these conditions.

INSERT here: Figure 4. Real GDP growth for the G7 countries

INSERT here: Figure 5. Real per capita GDP for G7 countries

3. Monetary and Fiscal Policy

Let me turn briefly to monetary and fiscal policy. As Figure 6 shows, the Japanese have immense budget deficits and, given the relationship of real interest rates (nominal rates are close to zero, but there is deflation) and meager growth rates, an exploding ratio of government debt to GDP. The three largest economies of continental Europe are about to violate the Growth and Stability Pact; or they will redefine it and push budgetary compliance out several years. That, by the way, is a perfectly predictable outcome. It is exactly what happened in the United States twice in the 1980s, when the attempts here to try to put restrictions on the budget met with great difficulty/opposition. We wound up in 1990 putting a different set of restrictions directly on *actual* spending rather than *projected* deficits, which worked until they were revoked in the late 1990s as surpluses developed. The calls in Europe to reduce budget deficits in anemic economies in Germany, Italy and France are misplaced. Of course, there is a strong case for reducing government spending growth in the longer term with structural reforms now. That would not only help later but surely give a shorter-run stimulus as well, as workers, firms, and investors had more incentive for productive activity and less incentive to relocate activity abroad. At the very least, one would expect the automatic fiscal stabilizers to be given free sway. And I would not rule out discretionary fiscal policy. There is a stronger case for it in an economy with very low interest rates, where one might expect monetary policy to be insufficient to cushion a serious economic downturn.

INSERT here: Figure 6. Budget balance as a percentage of GDP for G7 countries

It is well known that in the next few decades, tremendous changes in the age structure of the population will place immense pressure on public sector budgets. Starting from much larger shares of taxes and spending in GDP, with more generous social insurance programs relative to wages and higher tax rates, the Europeans are going to see a much greater increase in their elderly populations and, *a fortiori*, in the share of their voters who are net income recipients from the government, relative to those who are net taxpayers. When combined with very large fiscal gaps in their current systems of social insurance outlays (see Figure 7), this will cause a far greater political economy problem than the current welfare states already create. The United States will go from three and a quarter workers to two workers per retiree, whereas there are countries in Europe that will go to one worker per retiree.

The risks that societies are willing to take as their populations age may well change. Older societies may become more interested in preserving capital in general, not just financial capital but social and political capital as well, than investing it for future growth. Thus, for the sake of their own populations as well as those of the U.S. and the developing world, more aggressive monetary, fiscal and structural reform policy is needed right now to get Europe and Japan growing again. It is overdue. The European Central Bank and the Bank of Japan have been in difficult situations but need to be more accommodative (for the ECB, lower interest rates with due regard to properly measured output gaps and inflation risk; for the BOJ, quantitative easing to reverse deflation). A year or two ago I would not have said that about the ECB. The ECB needed to earn credibility and demonstrate independence from politicians, and thus had to be cut some slack by macroeconomists. The Japanese need to move swiftly and decisively to deal

with the bad loans in their banking system. While it will be a drag on the economy briefly, redeploying the capital to productive uses will ignite the economy for years to come – that is exactly what happened in the U.S. when we finally cleared up our analogous problem in the Savings and Loans (S&Ls).

INSERT here: Figure 7. Projected public pension payments and contributions as a percentage of GDP

This monetary and fiscal policy to promote growth requires a fine balance between necessary short-run stimulus and long-run restraint in spending which has proven difficult politically in most democracies. But this is the overwhelmingly most important item on the global economic agenda. Then I would hope that the European countries individually and, to the extent they wish to do so, collectively, would take steps to restructure their economies. Finally, one obvious answer to this population issue for their own domestic economies is to rely on immigration, but that is a far more contentious issue in Europe than it is even in the United States.

4. International Trade and Finance

Let us turn to trade and finance. The United States has a large current account deficit, almost 5% of GDP, as shown in Figure 8. The deficit never really declined during the recession, which is highly unusual, and despite a depreciation of the dollar in recent months, it may increase, as the U.S. is growing more rapidly than Europe and Japan. It is surprising that trade friction has not become an even bigger issue. The new trade round is crucial because a lot was left unattended in the Uruguay Round and because the LDCs

have many legitimate concerns. My own view is that, when we are not liberalizing trade, the same stagnant set of trade rules leads gradually to increasing indirect protectionism.

INSERT here: Figure 8. Current account balance as a percentage of GDP for G7 countries

Let me just come back for one moment then to what I think Europe has a right to expect of the U.S. and what the U.S. expects of Europe and, I emphasize, also of Japan. I think the rest of the world has a right to expect the U.S. to play a leadership role in a growing world economy, to make appropriate monetary and fiscal policy to the extent that it can, to keep the American economy growing, to mitigate the worst excesses of business cycles, to keep an open trading regime, to lead in the WTO and IFIs to more open trade and financial policies to promote stable growth. After all, the U.S. was for many years the major engine of growth in the world and further served as a tremendously important shock absorber for Europe and Japan by rapidly increasing its purchases of their exports. U.S. monetary and fiscal policies currently are stimulative, especially relative to European policies.

Finally, let me turn to global financial crises and international financial institutions (IFIs). These imperfect institutions face numerous issues and have sometimes caused more problems than they have solved, both in the short run for the affected economies and in the longer run for the support of the democratic capitalist model. But, on balance, they can be better utilized and ought to be reformed, not abolished. It is important that the U.S. not abandon its leadership role in reforming these institutions. Some international financial crises are easily predictable. Any serious economist knew that Argentina had to have a real exchange rate crisis. The timing was uncertain, but that it was going to occur

and cause immense problems was not. When I was in government, the big issue was what to do about bailing out Gorbachev. There are always things of that sort flashing on the global radar screen, and it is important that, in addition to the IFIs, strong relations be maintained among heads of state, finance ministries and central banks to deal with them. There is one potential global financial crisis that has gotten far too little attention. There has been a tremendous growth globally of derivatives. We have very little idea what these have done to the aggregate risk in our financial system. These financial instruments were designed to slice risk and price it, and clearly in that very narrow sense they have off-loaded some risk to those who could better bear it. But I know of no convincing analysis of whether this growth of derivatives has increased or decreased aggregate risk. There is thus some undetermined risk of a derivatives-based systemic financial crisis. It is important that we learn more about this risk in the event the central banks have to respond to an unfolding problem, to separate liquidity issues from solvency issues, and to mitigate potentially severe economic consequences of a financial panic.

5. Conclusion

The need to restore decent noninflationary growth to the G7 countries seems obvious, viewed from the United States. It is even more important for developing countries to have strong markets into which to sell their exports. And while the mixed capitalist economic/democratic political model has been widely if imperfectly emulated, it is under attack in many countries where it has not yet produced considerable economic progress. Surely the best thing the advanced economies can do to nurture these new reforms

globally is to be both successful examples and helpful trading partners. In short, the stakes in my view go well beyond more rapidly rising incomes in the rich countries. As the old saying goes, the Asian wise man asks the deity in his prayers to spare him from living in an interesting era. Those of us interested and involved in economic policy have not been so spared, nor are we likely to be in the foreseeable future.

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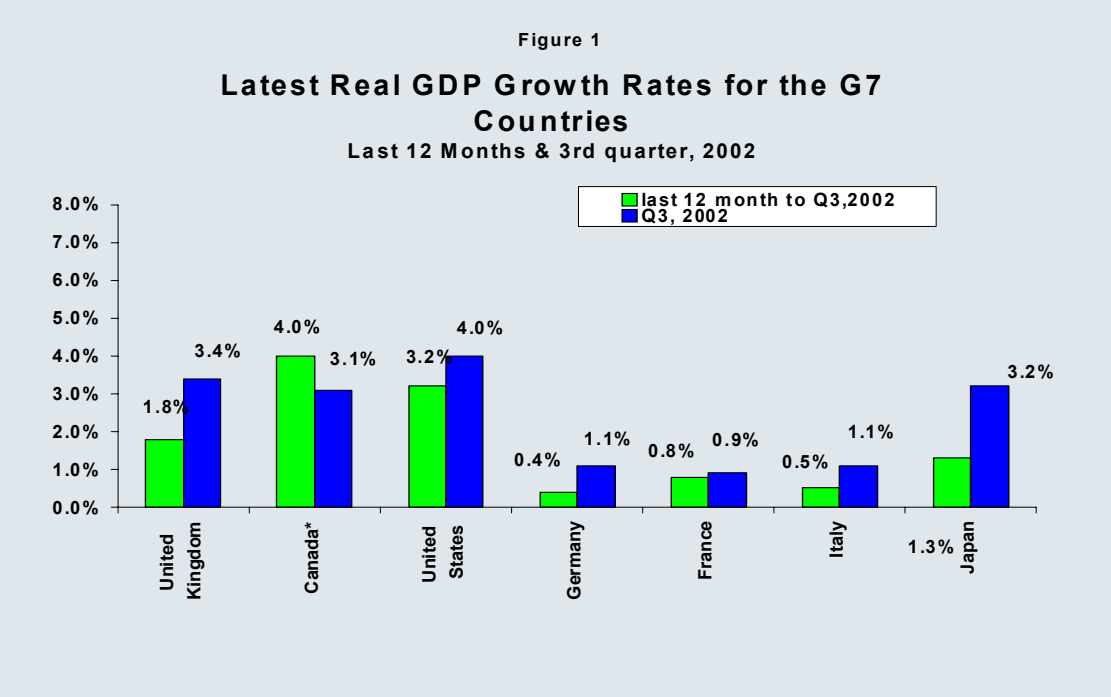


Figure 1. Latest real GDP growth rates for the G7 countries

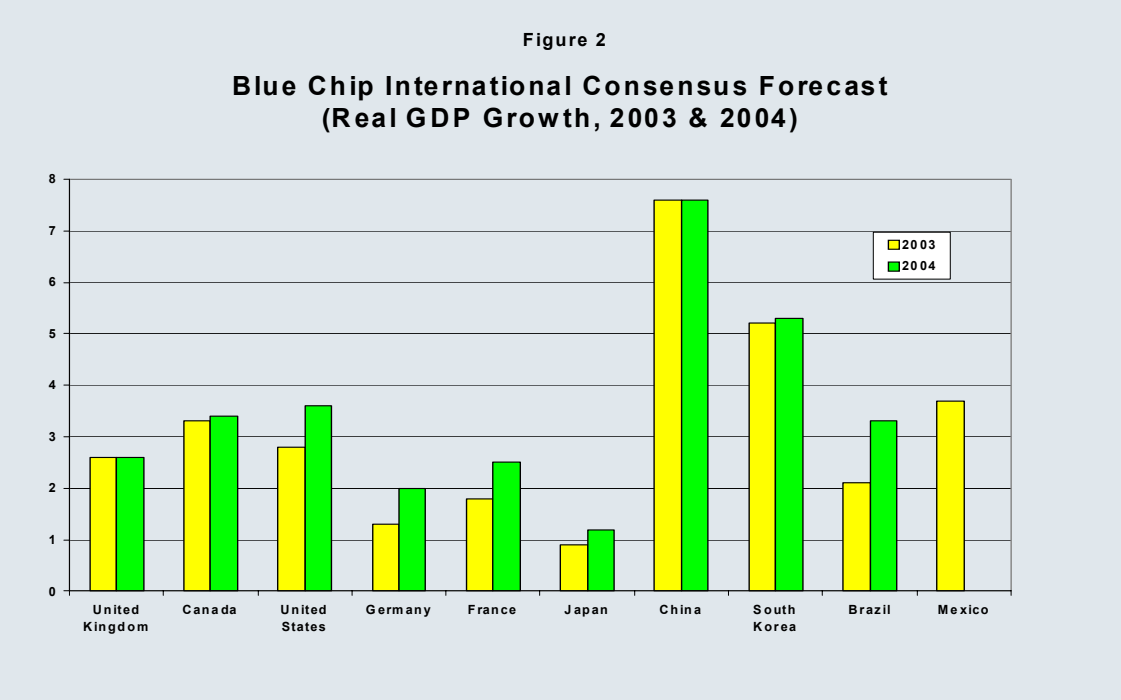


Figure 2. Blue chip international consensus forecast

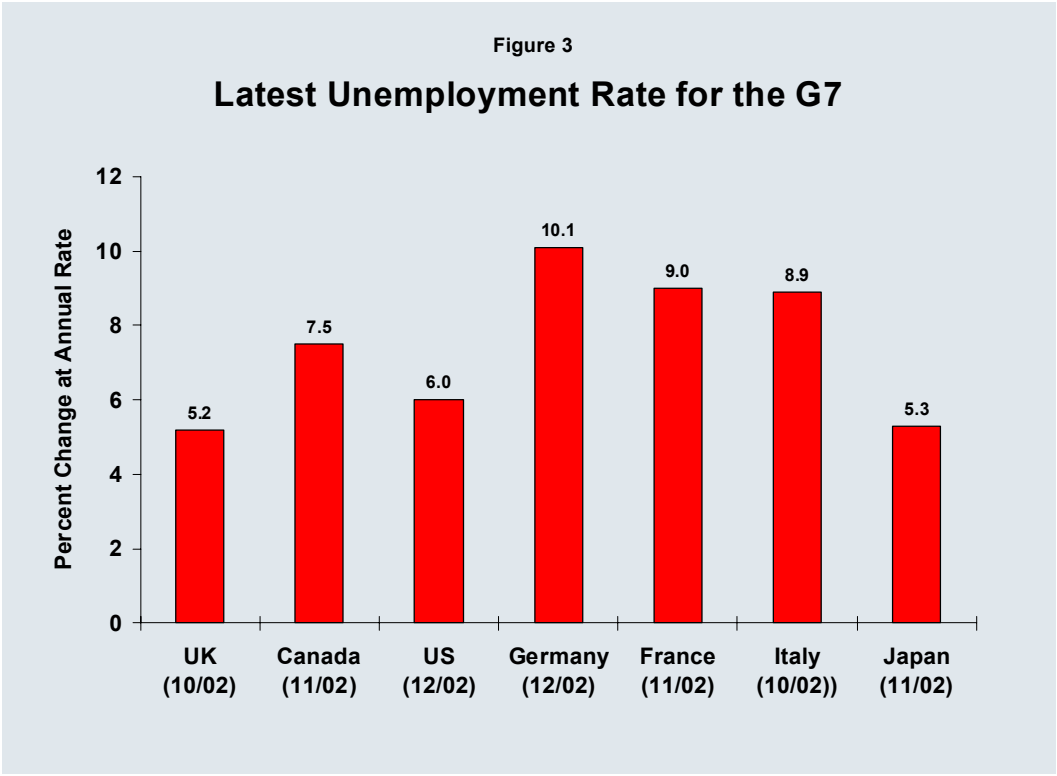
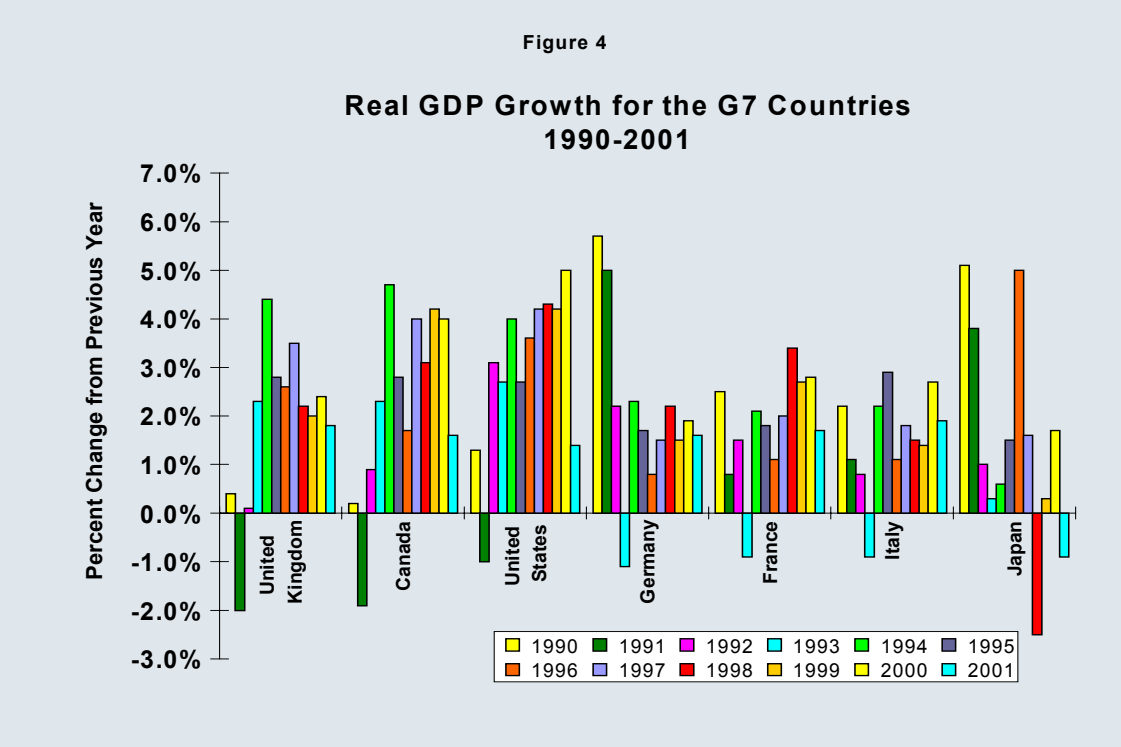


Figure 3. Latest unemployment rate for the G7



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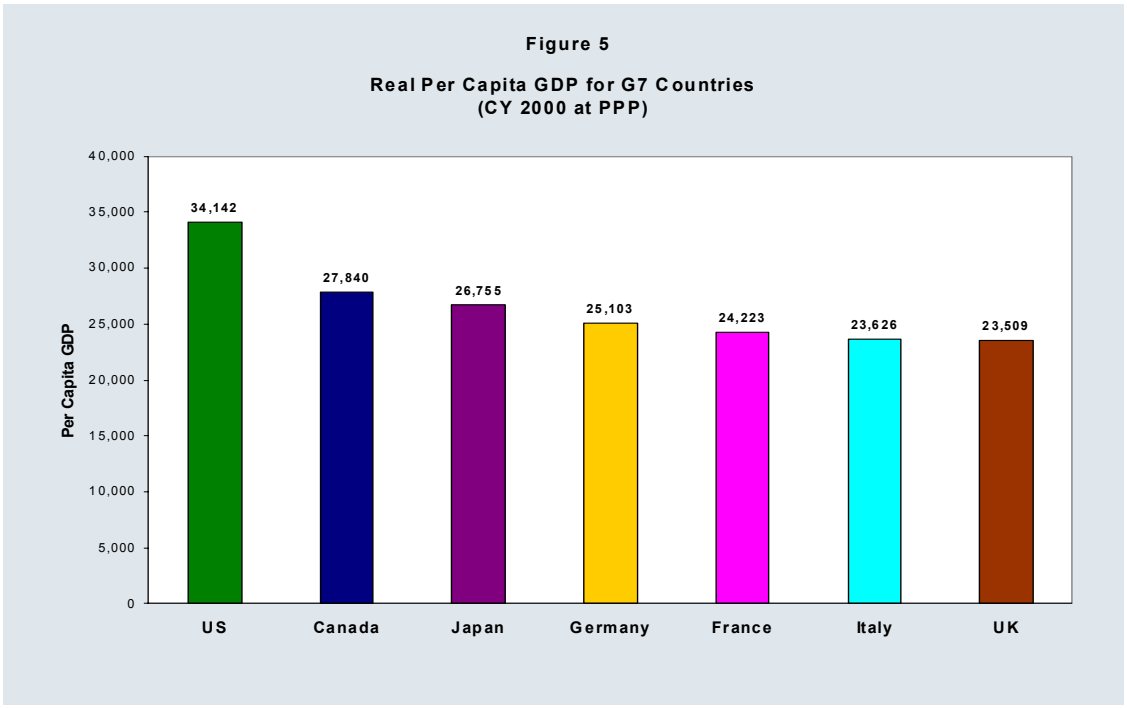

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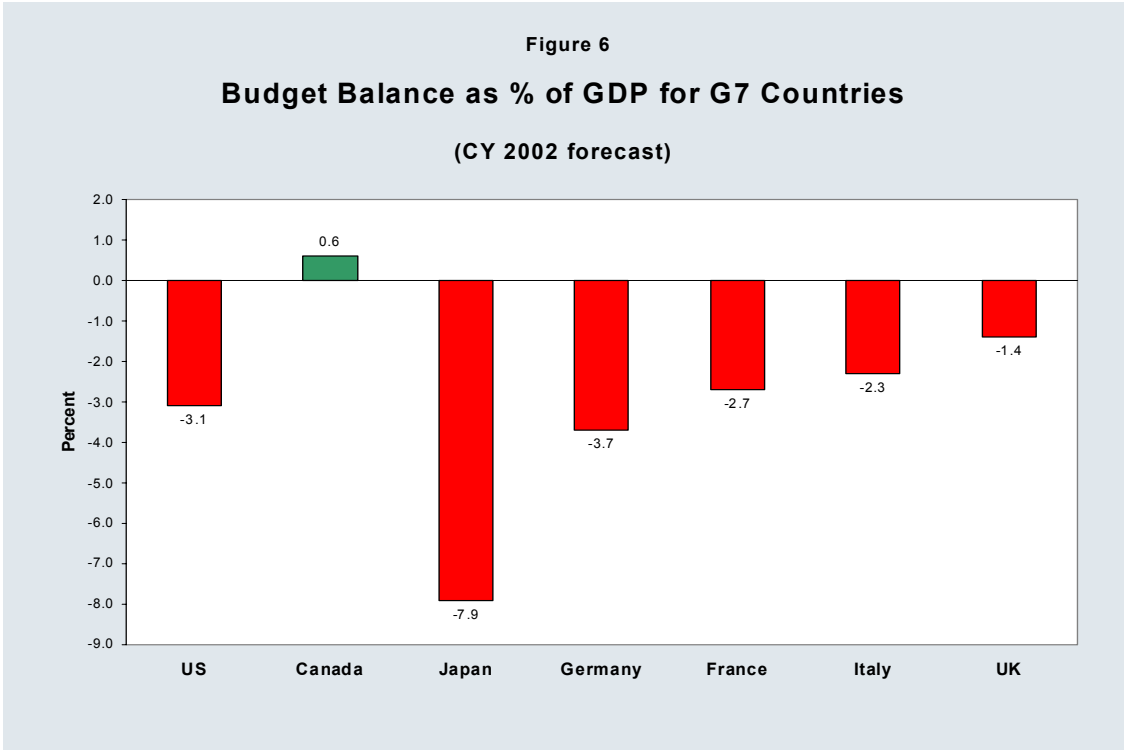

Figure 6. Budget balance as a percentage of GDP for G7 countries

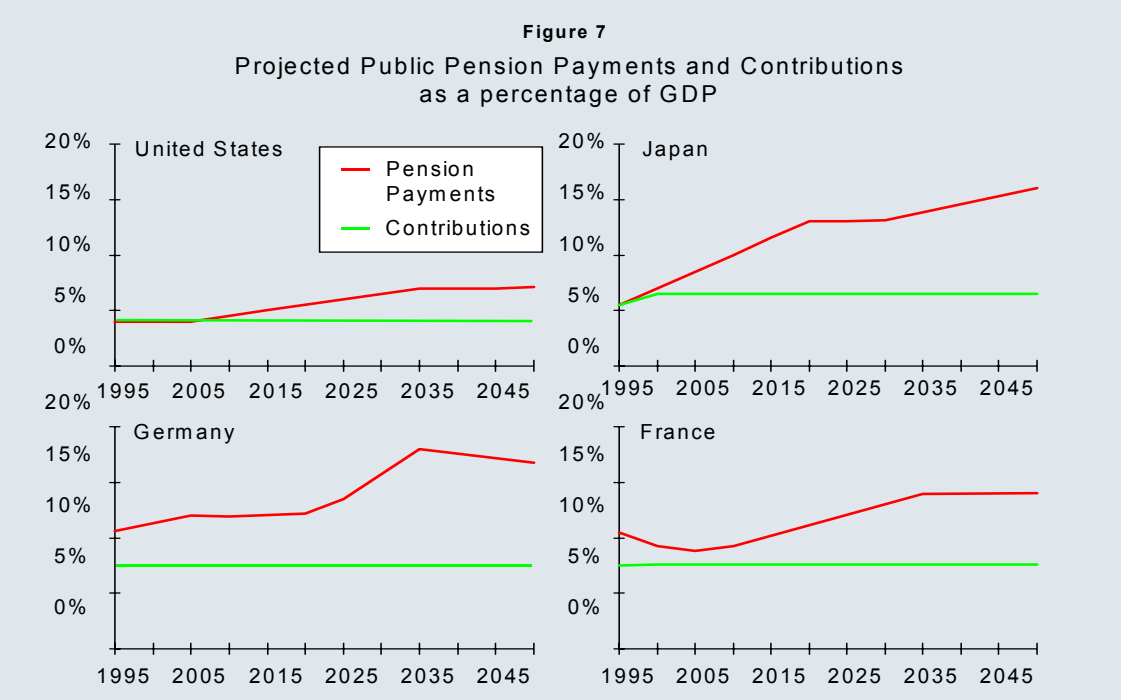

Figure 7. Projected public pension payments and contributions as a percentage of GDP

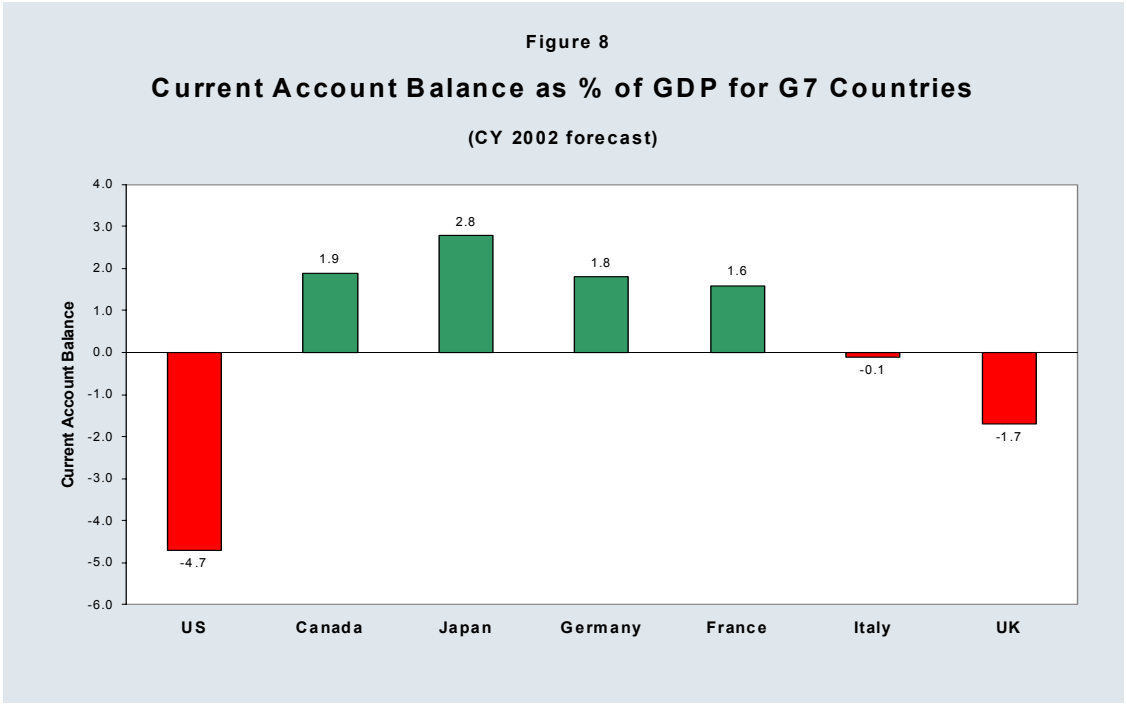

Figure 8. Current account balance as a percentage of GDP for G7 countries

REVIEW OF INTERNATIONAL ECONOMICS

The Economic Agenda: A View from Europe*

Karl Aiginger

RRH: The European Agenda
LRH: Karl Aiginger

Abstract: Over the course of the nineties, the US outperformed Europe not only in output growth, but also in productivity and employment generation, thereby stopping Europe's decade-long period of catching up. We show that the growth difference originates at least partly from insufficient investment by Europe into the determinants of long run growth (research, education and the diffusion of new technologies). Northern European countries with comprehensive welfare systems performed better than the big economies in continental Europe, due to their timely realization that these costly systems require the highest possible levels of productivity and fast growth. The European agenda for the next decade is based on this analysis. It stresses the importance of accelerating economic growth, primarily through investment into growth drivers. Labor market reforms are necessary, as is the redefinition of macroeconomic policy, a regional policy adequate for European enlargement, and reforms in the public sector. Distributional and ecological issues are also on the agenda, even though Europe outperforms the US in these fields, as is reflective of European preferences.

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The Economic Agenda: A View from Europe

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1. Introduction and Outline

For several decades, Europe was successfully catching up with the US in productivity. Productivity per worker and per hour increased faster, closing the respective gaps to 25% and 5%. However, in the nineties, European productivity decelerated and the productivity difference relative to the US again began to increase. At the same time, Europe was transformed into the European Union, in which the majority of members agreed to use a single, common currency and harmonized many policy areas. Over the course of the decade, the European Union extended its political and economic realm to economies that were formerly socialist. The next enlargement in May 2004 will add ten new countries to the European Union, among them 8 formerly socialist countries. Europe has a welfare economy with a comprehensive social net and government expenditures of about one half of GDP. Due to low birth rates and limited immigration, its population is aging. Agriculture is subsidized and skepticism to genetically modified crops is rather strong. These are all reasons why Europe's economic agenda looks somewhat different than that of the US and is more likely to be affected by rising tensions.

2. European Integration: a Success Story Lacking Growth

Looking at the priorities of the European agenda over the past twenty years, it is evident that integration was at the very top of the list. Initially, Europe was preoccupied with the creation of a Single Market, then with the introduction of a common currency and finally with the management of the enlargement. Everybody familiar with the fragmentation of Europe when integration began in the fifties, with its historical complexities in law and regulation, with the differences in income and productivity between the core and the periphery and between the North and the South, has to acknowledge that European integration – however slowly and bumpy the process was at times – has been a success. Today, many policies are negotiated at the European level, for some there are mandatory targets, while for other policy areas the instrument of "open co-ordination" (benchmarking) is used. Goods and services, persons and capital are now free to move across borders, Europe has a single currency (with 3 countries pondering whether or when to join) and ten or twenty more countries pegging their currencies as closely as possible to the Euro.

However, since the beginning of the nineties, European integration has been disappointing in one, specific respect. The European economy has not grown at a satisfactory rate, neither in output nor in productivity, nor in employment. Employment creation has been slow relative to the US and relative to the number of people willing to work. The share of employment relative to the population, as well as the number of hours worked per person and year is now – in contrast to the situation 30 years ago – lower in Europe than in the US, and a substantial part of the low labor input is involuntary. Boosting economic growth should therefore be priority number one on the future economic agenda, with the creation of

employment and increasing productivity being of equal importance.

3. Underperformance in the Nineties

Before arguing in detail as to how certain priorities should be ranked, let us put the European growth problem into numbers and figures. Europe is currently stuck in a slow growth period, with several countries at the brink of recession. Some economists are cautiously indicating that deflation may be around the corner and that Europe might perhaps follow Japan on its way into a longer recession. The fact is that growth has been lingering around 1% over the period 2001/2003. For 2004, the European economy is expected to grow by 2% or less, the US by 3% or more.

INSERT here: Table 1. The US outperforms Europe with respect to output, productivity and employment

Sluggish growth during these last years confirms Europe's disappointing performance during the nineties. In Europe, growth of real GDP decelerated to 2.1% (following rates of 2.6% in the eighties and 3.0% in the seventies), productivity to 1.7%. During the same period, macroeconomic growth in the USA was one percentage point higher.[1] The sum of annual growth since 1990 amounts to cumulated growth of 26.5% for Europe and 40.7% for the US. For productivity per worker the US lead – which had been decreasing for decades – widened from 20% in 1995 to 30% in 2002, for productivity per hour from 5% to 9%. Thus, after decades of European catching up in productivity, the US is forging ahead, reversing the long term convergence process.[2]

Alternative indicators of economic performance, specifically employment and

unemployment, do not offer much consolation: European unemployment has remained persistently high at about 8%, after peaking in 1994 at 11%. The employment rate, which up to the eighties was higher in Europe, is now 13 percentage points lower than in the US. It is important to stress that employment increased at both ends of the quality scale in the US: "High Tech" and "Big Mac" together created about 21 million jobs between 1990 and 2000.[3]

A comparison of the US and European performances becomes less clear cut when a broader set of economic and social goals is included. It is well known that in the US, energy efficiency is very low and the emissions of greenhouse gases are high and rising. A substantial part of the population is not covered by health insurance, and the distribution of income and wealth is far less equal than in Europe.[4] These contrasts partly reflect differences in preferences, and are partly based on differences in the political and social systems of the US and Europe. A full comparison of a broader set of social and environmental goals is beyond the scope of this paper (see Aiginger, 2003c for such an attempt), but it is important to note, that differences between Europe and the US widened in most of these fields during the nineties. This may lead to tensions between US and Europe, for example in negotiations on word trade agreements. Current performance and preferences regarding “green issues”, as well as equity and social security, will be of consequence to the policy agenda (see below for the European agenda and see Arrow 2003 for the US).

INSERT here: Figure 1. Different dynamics of real GDP in the US and Europe (1995=100)

4. The Reason Behind Disappointing European Growth

Most international studies and specifically the OECD, the IMF and the European Commission

explicitly or implicitly blame high welfare costs and low market flexibility for Europe's underperformance. While it is true that welfare costs are higher and labor as well as product markets are more regulated in Europe, there are some doubts as to whether market regulation and welfare costs are a sufficient explanation for low growth in the nineties. Firstly, differences in regulation were also present during decades of high European growth and catching up periods. Secondly, the difference in labor market regulation narrowed to some degree[5] during the nineties (see Table 2); markets in the United Kingdom are equally or even more deregulated than in the US. Thirdly, there is no robust relation between the degree of regulatory change during the nineties and economic performance (Aiginger, 2003b).[6] And fourthly, the European countries which according to growth, employment and fiscal stability performed best during the nineties were Sweden, Finland and Denmark – all of which are high welfare countries (Aiginger, 2003a)[7] with moderate regulation of regular contracts and high benefits.

INSERT here: Table 2. Differences between regulation in Europe and the USA

An alternative explanation of the growth difference is macroeconomic policy. US monetary policy during the nineties actively paid attention not only to price stability, but also assumed responsibility for economic growth and output stability. The US reduced interest rates early and courageously, in order to support economic growth, ultimately pushing the interest rate down to 1% in mid 2003. The strategy was enabled by the reputation of the monetary authority to be tough and inflation-minded, monetary policy was steered by a chairman, who enjoyed exerting his authority and accepted responsibility for the economic fate of his country. The European Central Bank began lowering its interest rate late and did not dare to decrease it to the US level. The US fiscal deficits during the recession of

2001/2003 were not restricted by fiscal policy rules. During the recession, the budget balance tipped from a surplus of 2% of GDP to a deficit, initially as a result of automatic stabilizers, secondly through discrete expenditure hikes (inter alia for security and war) and thirdly due to the continuation of a generous long-term tax reduction plan. In mid-2003, the overall government deficit was approaching 5% of GDP in US, while it was 2.5% in the European Union.[8]

INSERT here: Table 3. Indicators of macroeconomic policy in the European Union and the USA

While differences in market regulation and in macroeconomic policy may explain some of the growth difference, both can not explain the increasing differences in long term growth or in potential output. A widely overlooked explanation for the deceleration of growth in Europe during the nineties is that Europe did not invest enough in the factors responsible for long run growth. Taking a look into economic theory reveals that there are three main determinants of long run growth in high income countries: research and innovation, human capital, and the speed at which new technologies are diffused. Aiginger (2002a) developed a system of 16 indicators to measure the investments of countries into those variables which theory and empirical studies have shown to be important to long run growth. The set comprises indicators of research input and research output, education expenditures and educational attainment, and the ICT share in production and in consumption (as a proxy for the diffusion of new technologies).

INSERT here: Figure 2. The hierarchy of growth drivers

The astonishing result is that in 1990, the US was leading in all 16 indicators. At the end

of the nineties, the European Union was catching up in five of the indicators, and had surpassed the US in two; the difference was increasing for the other 11 indicators. In light of this evidence, it is no surprise that growth rates have been higher in the US since the nineties.[9] Figure 3 illustrates European performance and expenditures on determinants of future growth in comparison to the US: the dotted line indicates the situation at the beginning of the nineties, the continuous line, the situation at the end of the decade. Each value inside of the unit circle indicates underinvestment in Europe relative to the US.

INSERT here: Figure 3. Growth drivers in Europe vs. USA

INSERT here: Table 4. Investment in future growth

5. Towards a New European Model of a Reformed Welfare State?

Unsatisfactory European growth is to a great extent the result of disappointing economic developments in the three large continental economies, namely Germany, France and Italy. Average growth in these three countries amounted to only 1.6% between 1990 and 2003. While the nature of some of their problems may be different (the North South divide in Italy, unification in Germany, preoccupation with the distribution of work among employees in France etc.), the performances of these three countries, as well as their policy strategies, are strikingly different from those in the three best performing countries, namely the Nordic economies of Sweden, Finland, and Denmark.[10] They managed to growth at 2.9%, very close to the US figure. We want to describe these countries in terms of structure, performance and policies pursued during the nineties.

INSERT here: Figure 4: Performance of top 3 countries close to the USA

As for their structures, the three countries are small open economies, with comprehensive welfare systems. This specific type of system is called the Northern European Welfare System, insofar as it stresses redistribution, extends welfare payments to all citizens (not only workers) and social benefits are financed by taxes rather than wage contributions. All these countries experienced severe crises in competitiveness, either in the eighties or at the beginning of the nineties. The countries are high cost and high tax countries, the government plays an active role, decision making is shared among social partners and great weight is placed on consensus and continuity.

As far as performance is concerned, the top three countries are enjoying macro economic growth of 2.9%, as compared to 1.6% in the big continental economies. Productivity increased by 2.4% relative to 0.5%, and the employment rate is 71% in the top performers relative to 62% in the big three continental economies. The top countries combined fiscal prudence with large governments; budgets have been in surplus, even in 2003. However, government expenditures still amounted to 54.3% in 2003 and taxes were 56.5% of GDP. Both figures are higher than in the big continental countries and far above rates in the US.

The policy strategies of these successful countries relied on three elements:

The first pillar was the restoration of the balance between production costs and productivity in the private sector and between taxes and revenues in the public sector. Sweden and Finland did devaluate their currencies, while Denmark maintained its currency value relative to its main trading partners. Wage moderation was implemented specifically in Finland, less in Denmark and Sweden. Government expenditures decelerated, but levels remained above average. Finland decreased taxes slightly; taxes remained relatively

unchanged in Sweden and Denmark, and well above the level of the big countries.

The second strategy element was improving the incentive structure. Product markets were deregulated faster than in the big countries. The main changes in labor market regulation pertained to temporary contracts. Labor market regulation for regular contracts was not changed dramatically. It is stricter in Sweden, far below the EU average in Denmark, and a little bit lower in Finland. Training schemes were made obligatory and personalized, welfare to work measures with true assistance and without offensive rhetoric were installed. Replacement ratios were reduced marginally, and extremely long benefit periods were shortened. In Denmark, labor market policy specifically tried to increase the flexibility of firms, while increasing security for people in search of new jobs. This system has been labeled flexicurity (flexibility plus security).

The third and most important strategy element was raising the long-term growth path. All these countries invested into growth drivers and new technologies. The top 3 countries increased research expenditures, maintained or upgraded quality in education and invested into new technologies, specifically ICT and biotechnology. Denmark concentrated more on a strategy diffusing ICT and supporting successful clusters (IT bridge, medical sector). Finland increased research expenditures dramatically, even during a period when total government expenditures were reduced. Sweden supported the production and diffusion of telecom to such an extent that in most ratings it became the Number 1 for the implementation of goods and services for the information society. R&D expenditures in the top 3 countries surpassed those of the big countries in 1988 and are now double as high. The top 3 countries increased their lead over the large countries in education expenditures and they also excelled in the performance ratings of their education systems (the OECD's Pisa-rating). The lead of the top three countries in information technology is increasing. The correlation between the

performance ranking and increasing investment in growth drivers is highly significant.

In contrast to the traditional European welfare model, the balance between costs and productivity is of high priority. The budgets in all three countries are balanced or in surplus, despite the trough of 2001/2003. Firms are more flexible with regard to their use of labor, workers receive efficient assistance in their efforts to find jobs (active labor market policy). Replacement ratios have been somewhat reduced from their very high levels, but remain way above the European average. Benefits are conditional to search efforts. Some of these measures resemble US rules of workfare, but unlike their US counterparts, they are administered by labor offices and trained personal sincerely engaged in helping the unemployed and without the rhetoric that the unemployed may be too lazy to work. Labor markets, as well as product markets, are less regulated than in the big 3 continental economies, but much more strongly than in the US. For a synopsis of the differences between the old and new models see Table 5, for a more thorough discussion see Aiginger (2002a).

INSERT here: Table 5. Old European model versus new European model

6. A Tentative European Agenda

Growth is Essential

Europe's top priority should be to increase economic growth. Although income and income growth are only two components in a utility function, they facilitate the realization of other economic goals (employment, the financing of social and old age systems, redistribution, and environmental costs) and help to eliminate policy blockers (debt, deficits, uncertainty, conflicts). We have to acknowledge that European policy has lately and reluctantly

acknowledged the importance of growth: at the Lisbon Summit 2000, the European Union set the target of achieving 3% growth, and defined its commitment to become the most competitive knowledge based area. The policy instrument used to attain this goal is however the softest one implemented in all of the European Union; it is known as the method of "open co-ordination". This means that each country can go its own way; the Commission only provides a set of policy guidelines.[11] The performances of countries are evaluated according to these annual guidelines, against the background of a set of structural indicators. Such a benchmarking process should enable countries to learn from each other. Sub-goals are defined for total employment, for the employment of young people and elder workers, and for expenditures on research and education.

The problem with this soft policy approach is that it is not tremendously effective. In contrast to the Stability and Growth Pact, sanctions are not possible and if no country is meeting a target, the deficiency will not even be reflected in the ranking.

Growth Needs Investment into Growth Drivers

The second priority should be to increase investment into determinants of future growth.[12] This may not be a second objective, but rather a means of achieving the first. It is surprising that the importance of investment into growth drivers is presently so very low on the European agenda and practically absent from the economic discussion in the big continental economies. While France was very concerned about losing technological competitiveness to the US after WWII, and while in the seventies, Germany had well realized its problem of being strong only in medium technologies, and weak in high technology, these discussions were totally overshadowed by other current problems (unemployment, migration, German unification). Research expenditures were at best stagnant in the nineties, decreasing in relation

to GDP in France (1990: 2.4%, 2000: 2.2%) and in Germany (1990: 2.8%, 2000: 2.5%), and remaining far below the European average in Italy. The big three continental economies are investing less than the US in the majority of the growth drivers and differences have also increased for 10 indicators during the nineties. Expenditures on information technology are lower than in the US, as is the speed of diffusion of internet and PCs. Expenditures on tertiary education and the share of workers with university degrees are lower. These deficits exist for the large European economies, and not for some of the smaller ones.

Labor Market Reforms are Needed, but will not Boost Growth in the Short Run

One reason why Europe has neglected to stimulate growth is that many analysts, including those from the IMF, the OECD and the European Commission, believe that rigidities in the European labor market are the main culprit for unemployment and the insufficient generation of employment. These conclusions come from corresponding the high degree of regulation on European markets with low employment dynamics.[13] While there is some evidence that specific features of the European labor market are detrimental to employment (like high and unlimited benefits without obligations, and high unionization without sufficient co-ordination between unions or employees), and while the large continental countries did not reform their labor markets, the overall evidence that labor market institutions depress economic growth is not completely convincing. We have to keep in mind that the same institutions enabled Europe to grow faster, to catch up with the US in productivity, and to attain full employment in the decades before. It is plausible that flexible labor markets are more important in times of external shocks and economic turbulence, and the importance of flexibility increases in a globalized world where information technology has decreased transportation costs. On the other hand, policy which increases wage flexibility may at least have a negative demand

effect (via higher layoffs or reduced wages) in the short run. Later, this effect should be more than compensated by an increase in supply, which may come sooner, if firms and consumers are confident about the long run consequences. Some smaller European countries, most notably Denmark, Sweden and Finland, showed that the fine tuning of incentives (higher obligations for benefits are coupled with true assistance and training) may results in higher medium term growth, when it is coupled with boosting investment into long term growth. These countries also show us that returning to full employment is much easier if the economy is growing. In a period of declining demand, expensive exits into disability or pension schemes even had to be used in Sweden and the Netherlands.

A Proactive Policy in Research and Education is Important in Europe

Both government expenditures and public institutions are important throughout Europe. The government is currently financing between one third and one half of research and development expenditures in Europe directly, and is intervening in the private sector through research grants, tax incentives and procurement. Ninety percent of education expenditures in Europe come from public sources; the development of ICT has its roots in public institutions, in universities and in telecom firms which have not yet, or have just been privatized. Common standards were developed at a European level (e.g. the GSM technology for mobile phones). European research projects are extremely important in the fragmented and immobile research landscape. The current trend is to reduce the influence of public funds; the European Commission has set the goal that two thirds of research should be done in the private sector. Private schools and universities increasingly complement the public education system. Given the historic share of the public institutions, a proactive role of government will be indispensable in the short run, if research and education expenditures have to increase. Even a

shift from the public sector to the private sector will have to be monitored and accelerated with incentives and stimuli.

Public Sector Reforms

Rethinking the public sector should be another policy priority. Public expenditures relative to GDP have surpassed 50% in many countries, as compared to 35% for the US. One main category is social or welfare costs. The extent of the difference depends on several measurement issues, but the fact that welfare costs are higher in Europe is not dependent on the indicator used. Most European countries pursue strategies to reduce government expenditures or to enable them to grow more slowly than GDP. As far as taxation is concerned, Europe is trying to reduce taxes, specifically those relevant to competitiveness or the decisions of multinational firms regarding their locations. More aggressive reductions are limited by the political strength of public workers or by conditions in the labor market where a reduction in the public workforce would increase excess supply. New management techniques will be necessary for the restructuring of the public sector, and for increasing competition within the public sector and between public provision and outside options.

An Aging Society Needs Money to Finance Pensions and Health

The final reason why government expenditures will remain higher in Europe in the future is the aging of its society. This problem is now well understood, and reforms are underway albeit at different speeds across countries. An aging society relying primarily on public pension and health systems will require increasing expenditures in these two categories. If economic growth is high, this will be a solvable problem; for slow growth economies, expenditures will increase dramatically (with the uncomfortable options of either reducing

benefits or accepting higher taxes).

The Acceptance of the Market System Depends on Fairness and Sustainability

Distributional issues are low on the current European agenda, but they will come up again sooner or later. In general, income and wealth distribution is more equal in Europe than in the US, with great differences between Scandinavian and other European countries. Income differences increased in the nineties and many countries reduced or abolished property taxes, driven by the argument that capital is mobile and would go to low tax countries. The increasing income differences will not be sustainable over the long run. If governments continue to reduce corporate and income tax rates in the highest bracket, fairness will dictate that property taxes be used to attain the contributions of the wealthy for the needs of society. Environmental taxes will have to be increased to bring pollution back into the cost calculation. Last but not least, the tax burden should be shifted from labor to resources.

Ecological issues are more important in Europe than in the US. The taxation of energy is expected to rise and emissions will also be taxed – on the one hand in order to comply with the Kyoto rules, on the other hand to reduce tax wedges on labor. Limiting genetically modified food (GM-food) and the compulsory labeling of GM inputs are high on the European agenda. This objective will be difficult to pursue in a world in which other players are convinced about the safety of GM-food or for strategic reasons eliminate non-manipulated crops.

Europe is currently shifting from a system of agricultural subsidies, which previously favored production and excess supply, to a system which guarantees (a decreasing number of) farmers a certain level of income. But the amount paid to farmers is still very high and is not really targeted at environmental contributions or obligations for alternative employment

opportunities. Subsidies are too high by any economic rationale.

The Stability and Growth Pact and the Re-emergence of Macroeconomic Policy

A policy agenda for Europe cannot be closed without reference to the Stability and Growth Pact (SGP) and the need for rethinking macroeconomic policy. The European SGP, which limits deficits to 3%, was the answer to a permissive European fiscal policy. It produced fiscal deficits during recessions, without eliminating them during growth. Public deficits as a percent of GDP soared to two digit figures, with public debt surpassing GDP in several countries. The initial reaction of the European Union was to set targets for fiscal deficits and government debts (the so called convergence criteria) as a precondition for membership in the Monetary Union. After the start of the European Monetary Union, the SGP postulated that budget deficits should be close to zero, and were not allowed to rise above 3% in any single year. A monitoring mechanism was created, with an admonition first, and then the final threat of penalties, if the warning did not result in lower deficits. In 2003/2004 Germany and France came dangerously close to a fine, with Italy and Portugal not far behind. A more flexible interpretation of the pact has been discussed, with proposals ranging from taking specific expenditure items out of the calculation, or defining specific circumstances under which higher deficits can be allowed, or setting different limits for countries dependant on the existing debt. In connection with the GSP, but also with respect to the more growth-oriented monetary policy in the US, Europeans deplore the fact that fiscal policy as well as monetary policy was more effectively used in the US to maintain growth and to counteract the private business cycle throughout the crisis of 2001/2003. The US, once the country whose economists preached the end of anti-cyclical policy and the importance of predetermined rules, returned in the nineties to the fine-tuning of cyclical demand. Europe will hopefully

return to anti-cyclical and growth promoting policy, once its new monetary authority has gained a reputation of inflation awareness and fiscal deficits have moved close to zero over a full business cycle. For example, Sweden and the UK, feeling safely distant from the deficit ceiling of 3%, already started to boost growth via public expenditures in 2003.

Regional Policy and EU Enlargement

For a long time, regional policy has tried to reduce regional variations, specifically income differences between the core and the periphery. It has been successful at the national level, insofar as Ireland has not only caught up, but even surpassed the EU average in per capita GDP (not in income per capita) and the southern countries – Greece, Portugal, and Spain – are also catching up, albeit slowly. The success has not been the same for intra country differences, such as the regional divergence which has proved very persistent in Spain and Italy. With the upcoming European enlargement, new countries with much lower incomes will be entering an area in which the free movement of goods and persons is guaranteed. Regional differences are large within the new member countries; areas which border the current European Union are the richer regions. The importance of regional policy is therefore increasing with the size of the European Union.

7. Will the Agenda be Pursued?

The agenda is of course subjective. Many European economists would probably give higher priority to labor market reforms, with parallel emphasis on product market reforms and the reduction of government expenditures. Many European economists stress that increasing the number of low-paid and temporary jobs will almost automatically increase economic growth.

While the causality between growth and employment is still undecided, it seems reasonable to remove as many obstacles to employment creation and business start ups as possible. Job creation at all costs (e.g. with very low wages and no social net) is however not a feasible strategy for high wage countries.

Most Europeans will not argue against the importance of economic growth, but many economists believe that setting market forces free through deregulation and tax reductions will do the job, while I am convinced that a region, where research and education have historically been influenced strongly by the government, needs a prudent, proactive, research-oriented policy that enhances education. The preference for a sustainable ecological policy and the necessity of fairly maintaining the obligations between the wealthy and the less endowed are objectives not high on the current agenda. The future costs of aging are being recognized more and more often by governments and international organizations are giving them a very high priority.

INSERT here: Figure 5. Differences between the top 3, the large 3 and the USA in real GDP and research

The agenda proposed is quite close to the policy priorities of the Northern European Countries, notably Sweden, Finland, and Denmark. As already mentioned, these countries have comprehensive welfare systems and place great emphasis on ecological reforms. Most importantly, they have realized that their systems can be sustained only if costs and productivity are in balance and if investments into research, education and new technologies are encouraged.

The emphasis on growth and the proactive role of government is also very close to the policy conclusions in the so called Sapir Report (Sapir, 2003). It places priority on growth,

research, education, infrastructure and labor mobility; macroeconomic policy is seen as potentially effective and shifting European budgets from agriculture to research is recommended (See box 1).

8. Will the next decade see growth rebounding in Europe?

In assessing the development of US growth relative to that of the European Union during the next decade, we have to be modest in what economists can predict about the long run (in light, for example, of the US fear of losing competitiveness relative to Japan in 1990). We present arguments in favor of a new period of European catching up, but follow them up with a number of reasons why the US lead could persist, and finally recall three unsolved problems and a detrimental force facing the US.

Let us first enumerate the arguments in favor of European catching up: (i) The observed differences in fiscal and monetary policy will probably become smaller. The US will have to cope with its large and rising budget deficit. This will make it necessary to either curb expenditures or to raise taxes dramatically. In Europe, the three large continental economies have deficits of around 3%, which is high, but nothing compared to the deficit in the US. Other European economies have budgetary positions which can potentially eliminate deficits, and even generate surpluses if the economies rebound. European monetary policy can become more expansive, with inflation at a level of 2% and a reputation for building up monetary responsibility.

(ii) Welfare reforms have been initiated, cost consciousness has increased, the relation of social payments to GDP is constant in some countries, and slightly decreasing in others. Taxes and government shares, which previously increased from decade to decade, are

decreasing in relation to GDP, however from a level originally far higher than that in the US.

(iii) Europe's strength lies in the diffusion phase of new technologies. The difference in growth drivers should decline, given the greater awareness for research and education evident in the Lisbon process. The benefits of integration and enlargement should materialize, thereby boosting growth.

Three unsolved problems in the US may dampen that country's performance during the next decade. The current account deficit increased to 5% of GDP, making the US even more dependent on the willingness of other countries to invest in its economy. High profits and reliable corporate governance have therefore become necessary, and the situation is rather volatile and risky. A related issue is the low US savings rate, which reduced investment and growth (this situation will worsen parallel to the extent that foreign investors may no longer invest the lion's share of their money in the US). The costs of security and war are increasing expenditures directly; secondly they are distracting attention away from future investments. The peace dividend enjoyed in the nineties has been reverted.

It is in the nature of economic interdependence that what is a problem for one area is not necessarily an advantage for the other. If US deficits lead to the depreciation of the dollar, European exports and growth could also be reduced.

The following arguments speak in favor of a continued US lead: The level of research and its efficiency is still higher in the US; the share of technology driven and high skill industries is larger and high value added services are increasing faster in the US. Furthermore, taxes are low, labor flexibility is high, immigration is easier, and regulation favors cost competitiveness and the creation of firms.

My final assessment is therefore that the US lead will persist, although not to the extent of the nineties. Should a forecast be requested, the most likely development seems to me that

the US would again increase output and productivity faster than Europe. The difference between US and European growth may be smaller, since some of the reasons for the superior US performance have changed.

Box 1: Summary of the main findings and proposals of the Sapir Report 2003

Performance evaluation of the European Union

- Macroeconomic stability has improved in the nineties,
- a strong emphasis on cohesion has been preserved,
- but the EU system has failed to deliver a satisfactory growth performance.

Underperformance is striking in contrast to expectations, past performance and recent US achievements. Per capita GDP has stagnated at about 70% of the US level since the early 1980s. Growth must become Europe's number one economic priority – not only in declarations, but first and foremost in actions.

The basic failure of Europe

Unsatisfactory growth performance is a symptom of Europe's failure to transform itself into an innovation based economy. What is needed is more opportunity for new entrants, greater mobility of employees within and across firms, more retraining, greater reliance on market financing, and higher investment in both R&D and higher education.

The proposed agenda consists of 6 pillars

- Making the single market more dynamic

Better co-ordination of regulation & competition policy, pro active intra EU labor mobility programmes, green cards for third country nationals, infrastructure policy.

- Boosting investments in knowledge

R&D amounting to 1.9% of GDP and expanding tertiary education from 1.4 to 3%.

Excellence in post graduate education, the creation of an independent European agency for science and research, tax incentives to encourage private research, especially by small, newly founded firms.

- Improving the macroeconomic policy framework for the EMU

Greater symmetry in monetary policy over the course of the cycle, short term flexibility combined with the long tem sustainability of fiscal policy (fiscal policy should remain rules-based), improved incentives for surpluses during cyclical upturns, increasing the room for maneuver in bad times, rainy day funds, taking the level of indebtedness into account.

- Redesigning policies for convergence and restructuring

Giving priority to the creation and expansion of institutions, investing in human and physical capital, restructuring and retraining displaced workers.

- Achieving effectiveness in decision making and regulation

Focusing on open methods of co-ordination, relying on incentive-based methods, directing priorities towards spending on growth enhancers.

- Re-focusing the EU budget

Shifting the focus of the budget away from traditional expenditures (such as the Common Agricultural Policy) to

(i) a fund for economic growth (subdivided into R&D and innovation, education and training, and infrastructure),

(ii) a convergence fund aimed at helping low-income countries catch up (with emphasis on the creation and expansion of institutions, as well as human and physical capital),

(iii) a restructuring fund aimed at facilitating the process of resource allocation (directing aid towards agricultural sectors and displaced workers).

Source: Sapir, Andre: An Agenda for a Growing Europe, Report to the President of the European Commission, European Commission, Brussels, July 2003.

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Endnotes

[1] Growth differences between Europe and the US are analyzed in Aiginger (2003a), Aiginger and Landesmann (2002), Alesina et al. (2001), Bains et al. (2002), Gordon (2002), Jorgenson and Stiroh (2000).
[2] The difference widened most for productivity per worker, less for productivity per hour and least for per capita productivity, where the US lead is nevertheless still about 40%. There are many caveats to be kept in mind with respect to international comparisons in productivity. For example, there is the problem of measurement in services and software, different methods of calculating inflation in information technology (more reliance on hedonic indices in the US), the impact of stock market bubbles etc. For an overview of data bases and differences in productivity levels, as well as in catching up, see Aiginger (2003c).
[3] Since the second half of the nineties, the number of jobs in Europe increased by 15 million, but many of them were part time, per worker productivity decelerated.
[4] The lowest 20% get 8.3% of income in Europe as compared to 4.8% in the US. Energy in Mtoe per GDP is 0.15 in Europe, but 0.26 in the US, health-adjusted life expectancy is 70.1 years at birth in Europe, 67.6 in the US (Aiginger, 2003c)
[5] Of course this change may have not been strong enough as seen from the perspective of heavier external shocks.
[6] Nickell shows that some institutions matter for unemployment (Nickell, 1997). Elmeskov, Martin, Scarpetta (1998) report a correlation between the level of regulation and growth. For related literature see Buti et al (1999), Elmeskov et al. (1998), Freeman (1998), Martin (2000), Nicoletti et al. (2001), Nicoletti and Scarpetta (2002), Schettkat (2003).
[7] We must acknowledge that while maintaining the comprehensiveness of their welfare systems, these countries did a lot of fine-tuning to improve the effects of incentives and to make markets more flexible: deregulating part time work, combining obligations to the unemployed with training offers, shifting the responsibility for the first days of sick leave away from health insurance to firms and allowing workers to retain part of the benefits when they accept low paying jobs. These reforms were specifically enforced in welfare states and are summarized as flexicurity, welfare to work, and flexijobs.
[8] For the role of monetary policy for growth differences see Schulmeister (2000).
[9] Some of the advantages of investment into future components of growth were already evident during previous decades, when Europe did grow faster than the US. Two explanations are available as to why insufficient investments in Europe did not hamper growth earlier: first of all, per capita GDP as well as productivity were initially much lower in Europe, so that the higher levels of European growth include an element of catching up; secondly, it is argued that the European system of innovation may have been adequate during periods of imitation and diffusion, while the US system of innovation is better fitting to periods marked by the emergence of new general purpose technologies such as ICT. As a new general purpose technology emerged – the information and communication technology – the extent of a country's own research and close connections between universities and firms became more important. In the words of growth theory, the catching up of Europe had been conditional catching up, the condition being a set of technologies that were present before the emergence of ICT (Aiginger, Landesmann, 2002).
[10] The highest growth in Europe was achieved by Ireland, this is however a catching up story. Some of the policies used by Ireland are quite remarkable and could indicate successful policies for lagging regions and countries. Some elements of the strategies cannot however be copied, like tax differentiation between foreign firms and endogenous firms, high regional subsidies etc.
[11] Economic policy in general lies in the competence of the individual member countries in the European Union, the European Community can set only general goals and coordinate activities.
[12] For studies on economic growth see OECD (2003), Peneder (2001), Pichelmann and Roeger (2003), Tichy (2003), Wykoff (2000).
[13] See Visser (2000, 2002).

The US outperforms Europe with respect to output, productivity and employment

	Growth of real GDP		Productivity growth per worker		Employment growth		Productivity growth per hour	
Growth p.a.	EU	USA	EU	USA	EU	USA	EU	USA
1991-1995	1.59	2.39	2.06	1.37	-0.46	1.01	2.45	1.14
1996-2000	2.65	4.04	1.22	2.40	1.41	1.60	1.42	1.97
2001-2002	1.29	1.27	0.41	1.58	0.87	-0.30	0.88	1.59
1991-2002	1.98	2.88	1.43	1.83	0.54	1.03	1.76	1.56

Source: WIFO calculations using data from Groningen Growth and Development Centre.

Table 1. The US outperforms Europe with respect to output, productivity and employment

Differences between regulation in Europe and the USA

	PMRDYN			EPL total			EPL Regular contracts			EPL Temporary contracts		
	1990	1998	1998/1990	1990	1998	1998/1990	1990	1998	1998/1990	1990	1998	1998/1990
EU	4.73	3.26	-30.93	2.9	2.4	-15.00	2.7	2.5	-5.38	3.1	2.3	-23.36
USA	2.21	1.36	-38.54	0.2	0.2	0.00	0.1	0.1	0.00	0.3	0.3	0.00

PMRDYN: product market regulation; dynamic indicator for network industries.
EPL: employment regulation.

Source: WIFO calculations using OECD database on Regulatory Indicators.

Table 2. Differences between regulation in Europe and the USA

Indicators of macroeconomic policy in the European Union and the USA

	Deficit in % of GDP		Government expenditures in % of GDP		Taxes in % of GDP		Nominal short-term interest rates		Real short-term interest rates	
	EU	USA	EU	USA	EU	USA	EU	USA	EU	USA
1990	-4.77	-4.36	48.87	35.50	43.52	31.13	10.91	7.75	5.78	3.70
1991	-5.48	-5.05	50.07	36.21	44.66	31.17	10.83	5.53	5.41	1.82
1992	-5.83	-5.92	51.40	36.90	45.60	30.98	11.12	3.52	6.69	1.05
1993	-5.63	-5.02	52.41	36.23	46.77	31.22	8.43	3.08	4.85	0.67
1994	-5.27	-3.67	51.35	35.15	46.08	31.48	6.43	4.67	3.78	2.54
1995	-4.91	-3.09	51.22	35.01	46.31	31.93	6.62	5.97	3.70	3.71
Average 1990-1995	-5.32	-4.52	50.89	35.83	45.49	31.32	9.06	5.09	5.03	2.25
1996	-3.68	-2.22	50.90	34.56	47.22	32.35	5.10	5.46	2.77	3.45
1997	-2.12	-0.95	49.24	33.60	47.13	32.65	4.76	5.68	2.95	3.65
1998	-1.63	0.28	48.27	32.72	46.64	33.00	4.61	5.50	2.66	4.20
1999	-0.97	0.73	47.75	32.46	46.78	33.18	3.53	5.41	2.13	3.91
2000	-1.13	1.46	47.07	32.33	45.94	33.79	4.77	6.53	3.19	4.33
Average 1996-2000	-1.91	-0.14	48.65	33.13	46.74	32.99	4.55	5.72	2.74	3.91
2001	-1.48	-0.47	47.22	33.41	45.74	32.94	4.40	3.77	1.99	1.36
2002	-1.95	-3.18	47.43	34.78	45.48	31.60	3.48	1.80	0.99	0.66
Average 2001-2002	-1.72	-1.83	47.33	34.09	45.61	32.27	3.94	2.79	1.49	1.01
Average 1990-2002	-3.45	-2.42	49.48	34.53	45.99	32.11	6.54	4.97	3.61	2.70
Average 1996-2002	-1.85	-0.62	48.27	33.41	46.42	32.79	4.38	4.88	2.38	3.08
Difference 2002-1998	-0.32	-3.46	-0.84	2.06	-1.16	-1.40	-1.12	-3.70	-1.67	-3.54

Source: WIFO calculations using AMECO.

Table 3. Indicators of macroeconomic policy in the European Union and the USA

Investment in future growth

	1990		1999		Lead of US (+) resp. EU (-) 1990	Change in favour of US (+) resp. EU (-) 1999
	EU	USA	EU	USA		
Indicators on R&D: input and output						
Total expenditure on R&D in % of GDP 1992/98	1.88	2.65	1.86	2.66	+	+
Business Enterprise Expenditure on R&D (BERD) in % of GDP 1992/98	1.20	1.98	1.15	2.04	+	+
Research intensity in manufacturing 1990/98	2.00	3.07	2.01	3.23	+	+
Publications per inhabitant 1992/99	6.15	9.52	8.14	9.27	+	-
Patents per resident 1990/97	2.24	3.63	2.48	4.48	+	+
Indicators on education system: input and output						
Percentage of the population that has attained at least upper secondary education by age group (1998)	53.00	87.00	70.00	88.00	+	-
Percentage of the population that has attained at least tertiary education, by age group (1998)	19.00	37.00	25.00	36.00	+	-
Indicators on ICT: production and use						
ICT expenditure in % of GDP 1992/2000	3.69	5.65	6.40	8.75	+	+
Information technology (IT) expenditure in % of GDP 1992/2000	1.69	2.97	2.71	5.50	+	+
Telecommunication (TLC) expenditure in % of GDP 1992/2000	2.00	2.67	3.69	3.25	+	-
PCs per 1000 inhabitant 1992/99	0.93	2.53	2.49	5.17	+	+
Internet users per 1000 inhabitant 1992/99	0.03	0.18	1.59	2.72	+	+
Cellular Mobile Subscribers per 100 capita 1992/99	1.52	4.25	39.59	31.16	+	-
Indicators on share of "progressive" industries						
Share of technology driven industries in nominal value added 1990/98	21.85	26.46	22.92	30.27	+	+
Share of skill intensive industries in nominal value added 1990/98	16.81	18.27	16.67	18.64	+	+
Share of ICT industries in nominal value added 1990/98	7.28	10.07	6.80	14.31	+	+

Remarks: 1990 (1999) means that year in the nineties for which the earliest (or latest) data are available (both are indicated following the name of the variable).
For the percentage with secondary and tertiary educations, the older (45-54) and the younger (25-34) age groups are compared.

Source: WIFO calculations.

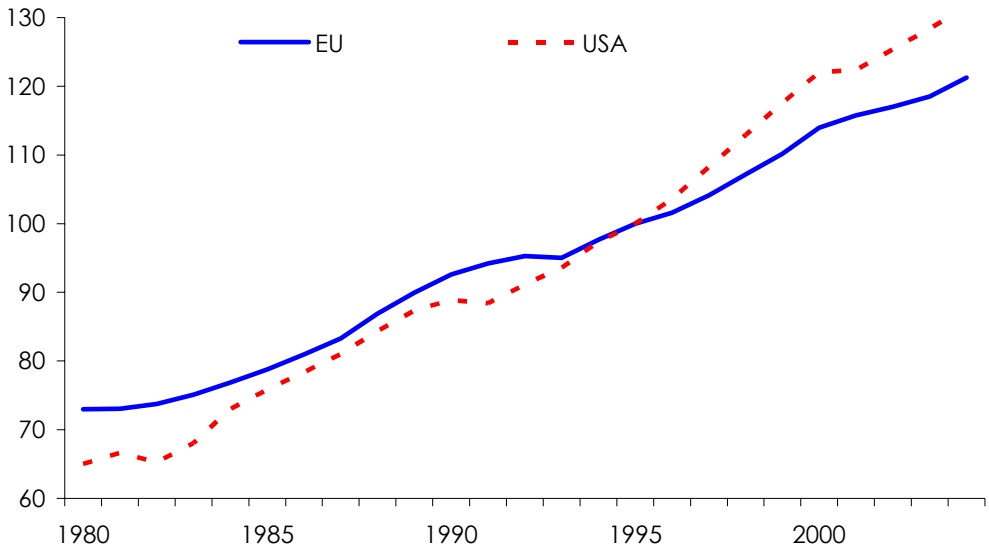
Table 4. Investment in future growth

Old European model versus new European model

Old European welfare model	New model of the reformed welfare state
Welfare pillar	
Security in existing jobs	Assistance in finding a new job
High replacement ratios	Incentives to accept new jobs (return to labour force)
Structural change in existing firms (often large firms)	Job creation in new firms, service, self employment
Comprehensive health coverage, pensions, education	Coverage dependent on personal obligations
Regulation of labour & product markets	Flexibility as a strategy for firms and as a right for employees
Focus on stable, full-time jobs	Part-time work as individual choice (softened by some rules)
Policy pillar	
Focus on (price) stability	Focus on growth and new technologies
Asymmetric fiscal policy (deficits)	Fiscal prudence
Incentives for physical investment	Research, education, and new technologies are the basis
Subsidies for ailing firms (public ownership)	Industrial areas, university nexus
Industrial policy for large firms	Start ups, venture capital, services
Encouraging co-operation or mergers	Enforce current strengths (cluster and regional policy) and competition

Table 5. Old European model versus new European model

Different dynamics of real GDP in the US and Europe (1995=100)



Source: WIFO calculations using AMECO.

Figure 1. Different dynamics of real GDP in the US and Europe (1995=100)

The hierarchy of growth drivers

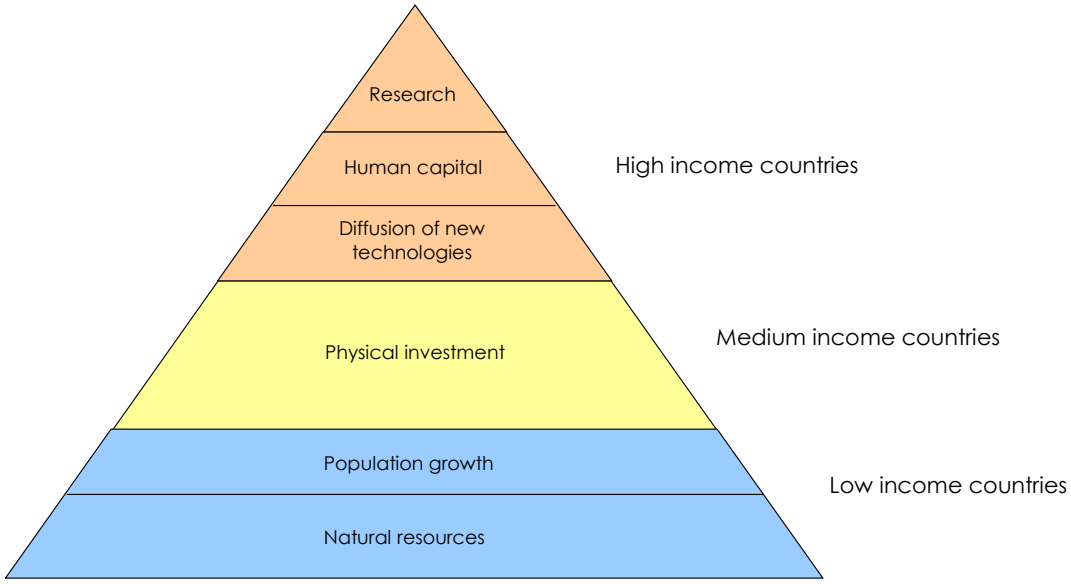
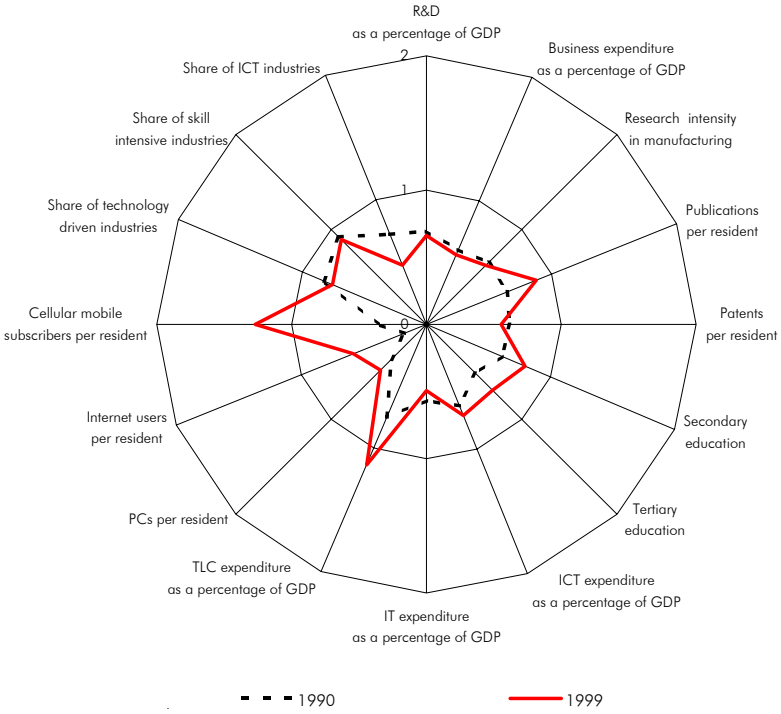


Figure 2. The hierarchy of growth drivers

Growth drivers in Europe versus USA

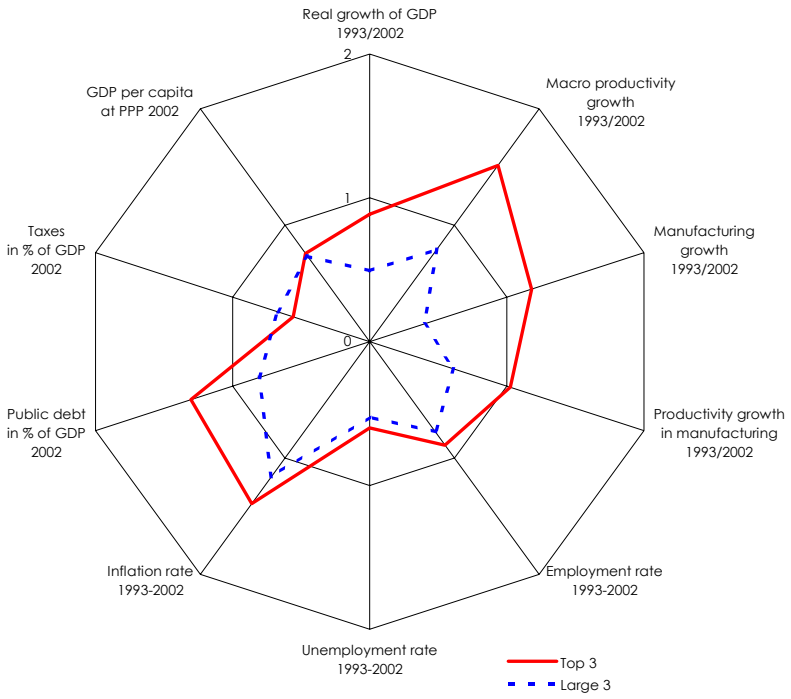


Remark: Each indicator outside the unit circle shows superior performance vs. the USA.

Source: WIFO calculations.

Figure 3. Growth drivers in Europe versus USA

Performance of top 3 countries close to the USA



Top 3: Denmark, Finland, Sweden; Large 3: Germany, France, Italy; unit circle = US.
Source: WIFO calculations using AMECO.

Figure 4. Performance of top 3 countries close to the USA

Differences between the top 3, the large 3 and the USA in real GDP and research

(in % of GDP)

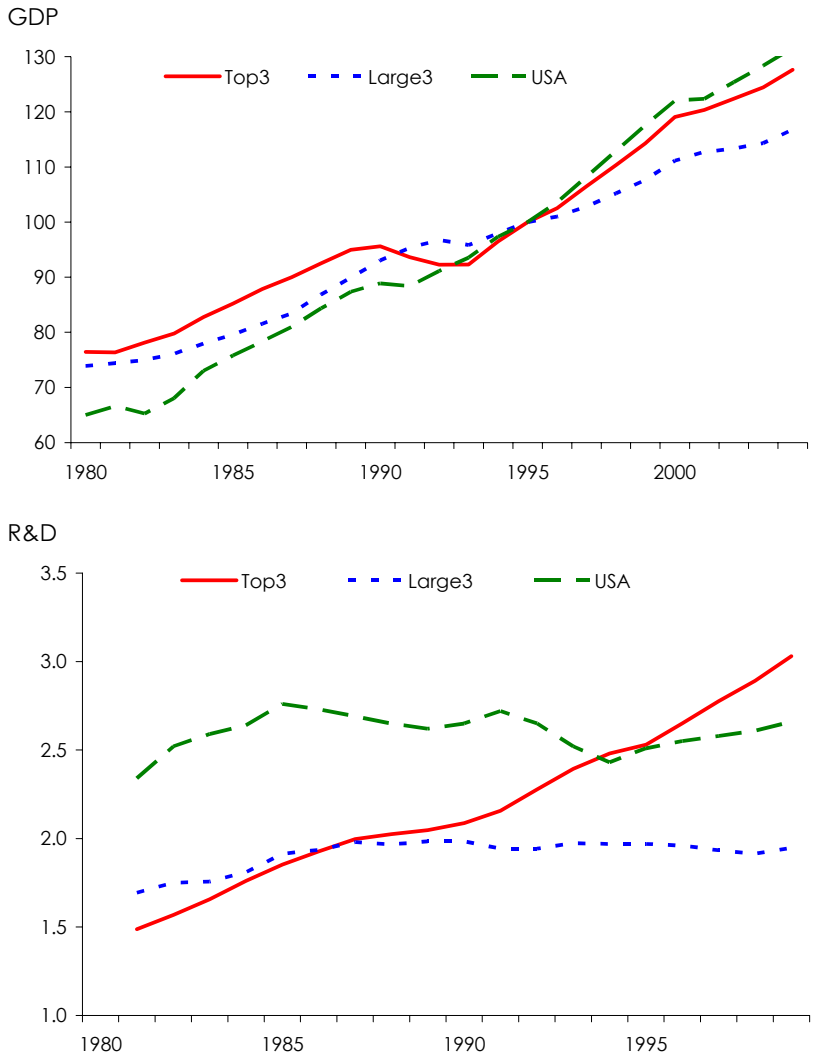


Figure 5. Differences between the top 3, the large 3 and the USA in real GDP and research

REVIEW OF INTERNATIONAL ECONOMICS

A Personal Agenda for the Next Decade*

Kenneth J. Arrow

RRH: A Personal Agenda
LRH: Kenneth J. Arrow

Abstract: This paper sets a broad agenda touching several areas of policy. It starts from the least likely policy at this point of time, the use of the tax system for redistribution. It discusses prudent macroeconomic coordination without the strings of the Maastricht treaty in business troughs. Regulation of financial markets, agricultural policies and health issues are coming up on a desirable agenda of the United States, but are probably important for all countries, as social security policy and climate change.

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A Personal Agenda for the Next Decade

Kenneth J. Arrow

Stanford University

In thinking about a desirable political agenda, I will rather than concentrating on two or three points, touch briefly a number of points in many areas. In my preparation, I listed many, perhaps too many.

1. Redistribution Policy

In discussing a probable and desirable agenda for economic policy in the United States in the next decade I can't refrain from starting with an unrealistic dream of mine, which may not be on a current agenda on either side of the Atlantic: the use of the tax system to modify the unequal distribution of income. The distribution of income in the United States is highly unequal and becoming more so. The rapidly increasing inequality in income is particularly concentrated at the top. This is not true of northern Europe. I don't really understand why there is such a difference, nor have I seen any good explanation. That is, there have been many explanations; when you see many explanations, you can be sure that we don't really quite grasp the situation We see similar changes in the United Kingdom and in some of the former Dominions, but we don't see them in Germany or Sweden or Netherlands or even France.

As far as any figures we have go, the top one-tenth of one percent has been gaining especially, for reasons that I don't think are fully understood. Several factors have been at work,

such as increasingly free trade and immigration, which affect mainly the lower-income workers, and technological progress creating a premium on skill differences. None of these explanations seem quite adequate. The rapid rise in CEO incomes compared to others has been astounding. Without fully understanding the causes, it is clear that tax policy could mitigate the trend towards inequality. Nevertheless, this topic is not in the political agenda. I just mention it as something that, may show up in eight or ten years, but the ease with which the last set of tax reductions went through in the US speak against this possibility. The pressure to repeal the estate tax is especially indicative. By all the theories of political economy, the estate tax should be one of the most popular taxes imaginable. It touches only two percent of the population. It only hits the rich, and yet the State of California offered a real test case. There was an initiative, that means not something passed by the legislature, but a popular initiative to repeal the estate tax in California, and it passed. Most of those who write on political economy have a tremendous fear of the masses' spoliating private property. It seems to be exactly what does not happen.[1]

2. Stabilization Policy

I agree that there is the need for fiscal policy. The recent history of the United States looks furthermore like the most tremendous success story for monetary policy. There is a big element of luck in that story, but there was unquestionably a very strong element of skill. The bold willingness to cut interest rates in the face of mild unemployment, not erring on the side of excessive concern for preconceived levels of the NAIRU, deserves great praise, not to mention emulation by the European Central Bank. The attempt to estimate a constant NAIRU has always struck me as absurd, there was never an empirical content to that concept. There isn't any strong

theoretical content, either. If you're a monetarist, I don't see how you could really believe in a NAIRU either, in spite of the fact that there were monetarists involved.

What we find, is that monetary policy has indeed performed very well in the United States. I'm no expert on the European experience, but one has the impression, that the Europeans have an excessively strict monetary policy. Boskin reports about the need for the European Central Bank to establish credibility, but I think the problem goes back much earlier. I had a conversation once with a former president of the Bundesbank, who stated flatly, the purpose of monetary policy is only to control inflation. There should no concern about output. This is a man of great intelligence and breadth, but, the remark still struck me as being an irresponsible abandonment of obligation. In any case, if the effects of monetary policy are so limited that all it can do is control inflation, then you need to have something else.

One of the questions is, will fiscal policy revive? The length of the current recession obviously is a significant matter. If it lasts long enough, it will change priorities just as the 1930s did.

In this context, I'm struck that one of the consequences of the lowered level of government is that automatic stabilizers are weaker. Cyclically sensitive taxes, such as the income tax, have less impact if taxes are lower. Unemployment insurance has fallen in the United States in the sense the extent to which the replacement ratio (the ratio of unemployment insurance benefits, to previous wages) has fallen very considerably, without any great amount of concern. It fell by very small incremental matters which didn't ever get up to the level of real attention.

To move from the United States to Europe, there is one problem of stabilization special to the European context. There are many observers who think the whole idea of monetary union in the European context is wrong and creates problems for stabilization policy. Milton Friedman,

for example, has said that repeatedly. The argument is the presence of idiosyncratic shocks. Europe is a big area, about to get bigger. The economic development of different parts may well be divergent. We all know that the capitalism is subject to cycles, and there is no reason for cycles in different areas to be perfectly synchronous. Now if we have collapse in Sweden and prosperity in Italy, or vice versa, what kind of policies does a European authority take? Monetary policy is Europe-wide. Even if it were more sensitive to output conditions than it is, it still cannot take into account of their variety. The United States of course has the same issue, but while it is certainly not one market, there is a considerable amount of labor mobility. We have seen considerable migration in several recessions. After the Vietnam War, the defense airplane industry in Southern California dropped drastically. There was considerable unemployment. Two or three years later, those engineers and skilled workers were somewhere else. The problem of local unemployment did disappear. The labor market in the European Union is not perfect, and there is the obvious cultural problem — moving isn't a simple matter when there are linguistic differences.

Now, one way to have a uniform monetary policy with idiosyncratic employment fluctuations is to have compensating national or regional fiscal policies. But now you've got the Maastricht Accord, and the Growth and Stability Pact, which has been recently even criticized by members of the Commission, a critique which I find to be right. Of course, for effectiveness, the regional or national fiscal policies should be coordinated. The whole question of coordination of fiscal and also monetary policy has been raised on the international level for years. Already thirty years ago people were discussing the idea that the leading four or five economic powers could all gain by coordinating their policies, so that, for example, you can make foreign demands substitute for domestic demand. The concept never seems to have taken off. I suppose there must

be deep reasons in the nature of coordination for this failure, but whatever they are, we have to take account of them.

3. Regulation and Competition Policy

There are many interesting issues, but they do tend to be very detailed and hard to describe in short compass. We have been abandoning or reducing regulation of industries that have previously been regarded as public utilities–telecommunications and electricity. The deregulation is a worldwide phenomenon. We've had an electricity shutdown here in California which probably set back the cause of deregulation quite a bit. You can't unscramble what has been done, but the spread can be stopped. I'm really struck, by the way, by the fact that the electricity and natural gas suppliers exploited the situation so heavily. It is now becoming public knowledge, but people on the inside were talking about the deliberate manipulation years ago. The lack of foresight by the power generators and natural gas suppliers has surprised me. If they wanted the deregulated system to succeed, you'd think they'd refrain from excessive short-run profit maximization. Perhaps, one trouble is the spread of a competitive ethos. It's not like Bell in the regulated era. Bell was worried about the future because it was the future. The current suppliers have competitors. Any one has an incentive to maximize profits, but when the market isn't working perfectly, as it never does, there are always opportunities which cast blame on the market as a whole.

The same thing applies in some of the financial deregulations. The repeal of the Glass-Steagall Act was not thought through at all. I was talking to a government official at the time and asked him a simple question, "if an insurance company merges with a bank and the bank has trouble, what happens to the insured?" The official really had no explicit answer. All he could

say, "Well, there's supposed to be some kind of a fire wall." If I buy an insurance policy, I don't want to worry about is whether the bank that's associated with this insurer is at risk or not. That's not what I'm insuring. The authorization of these mergers, the conflicts of interest that have been so prominent, and the accounting standards in corporate reporting are all part and parcel of the thrust towards deregulation and show how it has moved too rapidly. I'm interested; as a student of political economy, in observing how quickly the pressure for improved accounting standards is already being sabotaged.

The typical sequence of events, as happened also in the Thirties, is that these problems of manipulation, misreporting, and so forth are revealed because the company fails. The company probably fails for reasons that have little to do with this misreporting, but the failure exposes them. That's what happened with Enron. It didn't fail because of the various reported manipulations, but the failure brought the ills to light. If the recession is prolonged, if there's the double dip that some analysts fear, if fixed investment doesn't pick up in time to handle the shortfall in demand, then consumption is going to have to go down; people are not going to keep on assuming return of prosperity. Housing and so forth will be affected, and the question is, have we overbuilt so much that fixed investment may not return quite so quickly. Well, if that happens (I don't think that we know that it'll happen or not, but we can't exclude it), then it's possible we may have more failures and a revival of interest in improving the monitoring of economic and financial activity.

4. Foreign Trade and Capital Flow Problems

Foreign trade policy requires coordination among sovereign countries; there are many problems, as with coordination of stabilization policy; they are too detailed for examination here. The

American counterpart of the European Union, the idea of a free trade area for the Americas. I don't think it's going anywhere. I think it would be a big mistake if it did because it would get in the way of world coordination. There is nothing natural about the Americas as an economic unit. The aim of freer world trade would be inhibited by having some kind of protective barrier around the Americas.

I want to bring up one aspect of foreign trade, the agricultural issue. It seems to me that one of the big problems of the world is this whole question of agricultural policy. It's not much a question with regard to domestic resource allocation. There are so few American farmers, that even if they're inefficiently employed on farms, it really isn't going to make much difference. With the high rates of unemployment in Europe, there is no place for the farmers to go, so perhaps the so I'm not worried about the allocative effects of agricultural policy there either. What I'm worried about more is the blockage of Third World agriculture. This is where I think there is a serious problem. All this talk about free trade is very nice, but one of the few places where the Third World could really hope to gain exports is in the agricultural field. Obviously it's happening to some extent, particularly with the improvements in transportation, preservation of goods and the like, but there is still a major problem for the countries of the Third World that have to overcome subsidies and protection. Many of the same problems are raised by the expansion of the European Union. Agricultural exports from Eastern Europe, with lower labor costs, to Western Europe, are raising precisely the same protectionism.

Both the explanation and the appropriate policies for the persistent United States trade deficit offer important difficulties, intellectual and operational. There is one explanation, which is that the deficit is the counterpart of the fact that the United States is a better place to invest your money, taking into account both return and safety. Nevertheless, I feel one must should be

worried. What's interesting to me is that public attention and scholarly attention have declined, even though the problem has gotten bigger. The aggregate amount of foreign investment is obviously growing. Now, why can't we have an Indonesia in the United States? Suppose at some point a miracle will occur, and Europe's economy will start bouncing away. It can happen. Europe has grown. When Europe was growing, say, in the Sixties. it was growing a lot faster than the United States. At some point, Europe or possibly Japan will suddenly become a very attractive place to invest. Then the mobile investors of the world will follow the free-capital-flow model that we preach and practice, and suddenly foreign-owned capital starts leaving the United States. We find a big run on our currency. Now obviously, the relative magnitudes won't be anything like Indonesia, but I don't see why we can't have something comparable occurring here, particularly if, for some reason, we're stagnant (we don't know enough about the future to be sure it won't happen).

Now, I'm not sure there's anything to be done about this. To let the market handle the problem when and if it occurs, I must confess I don't know any policy that's better than that, but I will say, I don't think that our deficit is entirely risk-free.

5. Social Security and Health

Let me conclude with a few words about the long future. I will start with the problem of social security (retirement). As far as the United States is concerned, the problem isn't really a very big problem. The net change in expenditures is a few percent of GNP. On the other hand, the Europeans and, even more, the Japanese do have a huge problem of supporting the aged. I'm not much impressed with the idea that you invest in equities rather than government bonds. The real problem presumably is that the old people are getting too much, and if you increase their returns,

that's going to make matters worse, not better, leaving aside all the transitional problems. So I don't see this has anything to do with the issue in any basic way. I can only suggest of course the obvious point, which is that I do expect the retirement age to rise. As a lot of statistics show, people are healthier, more capable of mobility, and more functional at any given age. The improvement in health is not just improvement in longevity. People can work longer. They probably can't work at their peak levels. You have to expect them to have second careers. Such an institutional change would both reduce the expenditures and increase the output to pay for them. Such figures as I've been able to see don't suggest you can solve the problem that way, but you can make a dent. In the American context at least you can reduce the deficits by 25 or 30%, by a plausible increase in retirement age.

Another growing problem is the financing of medicine. The American system permits greater expenditures than the European systems. That's usually thought of as a minus, but I take it as a plus. Although there is much talk about how expensive the American system is, I would say that it is at least as appropriate to spend your money on medical care as on high definition television sets. I don't see any particular reason why it should be held against a country if it decides to allocate its resources that way. There are lots of complaints, at least as judged by anecdotes, about the operations of systems which are better in controlling costs, such the British, the Canadian, or the Swedish. The hospitals are run down, they have waiting lists for elective surgery, and they have been cautious on expensive treatments like renal dialysis. On the whole, they have controlled costs, but they have been somewhat slower on innovation.

This does not mean that everything is well. We are showing less respect for equality, and we do have a growing fraction of the population that is uninsured. There have been some studies

by the Institute of Medicine which show that the health care is definitely adversely affected by lack of insurance. This is especially true of the uncovered children.

The health outcomes in the United States are not remarkably good. Longevity is not highest here. It's higher in other countries, and there are considerable inequalities among social groups.

6. Climate Change

I will conclude on one more long run implication, climate change. There are other environmental problems, many of which are actually being handled. The United States, unlike Europe, has not been addressing the problem of climate change. We're talking now about carbon dioxide levels in the atmosphere today that haven't been seen for hundreds of thousands of years and, what's more, are rapidly increasing. Frankly, we don't really know what the consequences are. It is a risk, but, unlike many other risks, it is irreversible, at least in the short run. If we discover in the future that the costs are greater than we want to bear, we cannot adjust by changing our policies then. The real difficulty is that climate change is irreversible; if you get the CO2 in the atmosphere, you can't get it out again. Hence the risks are very great, At present, the CO2 level is about 40% above the preindustrial age. By 2050 it will be double at the present rates of growth; remember, a lot of the countries, including such giants as China and India, are industrializing . By now, something close to 50% of all emissions come from LDCs, countries not in the OECD or comparable to OECD level countries. They are about 50% of the emissions today. It's pretty hard to maintain that they should be regulated because it is the present advanced countries which have filled up the atmosphere. The economic impacts from the world point of view are unknown in magnitude but are likely to be very large. They may not be very large in the United States, by the

way, as far as current calculations go. But if the world is affected, we're affected too, through obvious links. There are a number of small countries that will be wiped out, literally, as the sea level rises. The populations involved are for the most part small, although Bangladesh is one of those countries at threat, and it's not a small country. The coastline in the United States will move inland, wiping out some valuable property.

I have been surprised to find that, in spite of the very negative attitudes of this administration and the lack of enthusiasm of the last administration, there is considerable grass roots interest in the United States. California, for example, just passed a law regulating the CO2 output of automobiles. It'll be headed to the courts, of course. Several New England states have at least made commitments. What they'll do about it I don't know, but they made commitments to CO2 levels. So I think there is support for the issue and I think it's not going away.

Endnotes

[1] The fact that the interests of a very small group can get a majority even if it is at the costs of a broad majority has a parallel in agriculture. The political power of farmers is inversely proportional to the relative size of the population, as far as I can see, a rather interesting generalization for which I know no explanation.

REVIEW OF INTERNATIONAL ECONOMICS

The EU Growth Strategy and the Impact of Aging*

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RRH: Potential Growth in the EU and the Impact of Aging
LRH: Karl Pichelmann, Werner Roeger

Abstract: The paper looks at the main challenges to raise potential growth in the EU. It examines the progress made regarding the structural reform efforts in EU product, labor and financial markets over the past couple of years, and it attempts to assess their impact on overall macroeconomic performance in terms of output and (un-) employment. The paper then proceeds to analyze the likely consequences of population aging for the growth rate of potential output and per-capita incomes, emphasizing the fairly dramatic economic and budgetary implications of the decline in the EU's working age population if governments do not take offsetting policy actions.

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The EU Growth Strategy and the Impact of Aging

Karl Pichelmann, Werner Roeger

European Commission

1. Introduction[1]

Europe's key challenges of restoring full employment, creating a knowledge-based economy, preparing for population aging and safeguarding social cohesion are closely inter-linked and, as stressed in the EU Broad Economic Policy Guidelines, need to be addressed by a coherent and comprehensive economic policy strategy for the medium-to-long-term. The overarching objective of this strategy is to enhance the capacity of the EU economy to generate high rates of non-inflationary growth over a prolonged period. Basically, this requires to press ahead with deep, comprehensive reforms of product, capital and labor markets, backed up by a sound macroeconomic policy-mix aiming at sustained rates of growth close to potential within an environment of price stability.

Against this background, this paper looks at the main challenges to raise potential growth in the EU. It examines the progress made with respect to the structural reform efforts in EU product, labor and financial markets over the past couple of years, and it attempts to assess their impact on overall macroeconomic performance in terms of output and (un-) employment. The paper then proceeds to analyze the likely consequences of population aging for the growth rate of potential output and per-capita incomes,

emphasizing the fairly dramatic economic and budgetary implications of the decline in the EU's working age population if governments do not take offsetting policy actions.

The paper is organized as follows: Section 2 first presents some stylized facts with respect to potential output in the EU; then, it describes the fundamental mechanisms underlying the EU growth strategy sketching the main transmission channels from structural improvements into macroeconomic performance in terms of a simple model of output and employment. Finally, reviewing the broad patterns of structural reforms in the past couple of years, the section offers an evaluation of their impact on macroeconomic performance using backward-looking macro-econometric simulation techniques.

Section 3 provides an overview of the basic data on population trends for the EU, USA, Japan and with the rest of the world broken down into two groups of fast and slow aging countries. It then goes on to illustrate the implications of the sketched demographic developments for potential output, growth of per-capita incomes and public expenditure on pensions and health in a no-policy-change scenario. The section ends with a brief discussion of the available options to attenuate the growth implications of aging populations.

Lastly, Section 4 provides some brief concluding remarks. We argue for an urgent need to maintain and increase the momentum and the breadth of structural reforms and we stress, in particular, that determined efforts aiming at expanding the potential labor force are the most effective means of limiting the overall growth loss stemming from the declining and aging population in Europe.

2. Raising Potential Growth in the EU

Setting the stage: Where do we stand?

At their summit meeting in Lisbon in 2000, EU leaders set the ambitious goal for the EU to become the world's most competitive economy by 2010 and agreed on a comprehensive structural reform agenda to boost employment and liberalize markets, now known as the "Lisbon strategy". This economic reform drive was largely motivated by the observation of a persistent income gap with the US and a widespread perception of even falling further behind.

Indeed, at the turn of the century EU income levels - measured in terms of GDP per capita in purchasing power parities - stood, on average, at only some 70% of the US level. However, it is important to note that the gap is much less pronounced in terms of productivity per hour worked. The larger part of the difference in average levels of income is explained by the fact that Europeans work less than their US counterparts, both in terms of employment rates and, if employed, in terms of average hours worked.

INSERT here: Figure 1. EU performance

Despite the common challenge to raise Europe's potential growth and to narrow the income gap, the points of departure differ considerably across EU Member States. This holds in particular true with respect to labor market performances. Figure 2 presents a cross-plot of the overall employment rates and female employment rates. As to be expected, one finds a strong positive correlation, with a number of EU Member States –

particular in Southern Europe – in the bottom left area, while some other countries are already exceeding the target values set in Lisbon on both counts. The Figure also indicates, however, that the majority of EU Member States – among them all the major economies of the euro area – have still a long way to go to reach the agreed targets. Moreover, it may be interesting to note that the group of best performers comprises of countries with fairly different labor market and social systems, such as corporatist-type Scandinavian welfare states like Denmark and Sweden, and less-regulated more market-type systems like the UK. Put in a nutshell, this suggests that there are different ways to achieve high employment rates, and the Lisbon strategy to boost employment explicitly acknowledges that it has to be tailored to country-specific circumstances.

INSERT here: Figure 2. Total and female employment rates

A simple growth accounting approach demonstrates that the second half of the 1990s has seen a significant change in the growth pattern of the EU economies. Not only that average growth of GDP in the EU-15 has accelerated from a meager 1.5% over the period 91-96 to an average rate of 2.6% for the period 1996-2001, the contributions to growth from factor inputs and productivity improvements have also changed fundamentally in the latter period (see Figure 3). In line with the observed real wage moderation over the past couple of years, and supported by some structural labor market reform efforts, factor input proportions have altered in a labor-friendly way. In particular,

- the labor contribution to growth has turned positive, even higher than in the US,
- the contribution from capital accumulation and TFP growth has been subdued.

As a result, EU growth over the period 1996-2001 has been characterized by relatively strong employment gains, in combination with significantly lower capital-deepening and, thus, weak apparent labor productivity growth. In the course of 2001, however, the EU has entered a period of fairly sluggish economic development, with actual output growth now falling below potential for more than 8 consecutive quarters.

Two additional factors have to be kept in mind in terms of actual growth accounting: Labor input growth in terms of total hours worked has been smaller than in heads, because a significant share of the net additional jobs has been in part-time work. Moreover, the recent slowdown of labor productivity partly reflects the employment of formerly unemployed or inactive workers with less-than-average productivity.

The sketched aggregate picture for the EU as a whole is reproduced, by and large, at the individual country level for all the major economies of the euro area. The labor contribution to growth, while negative in the first half of the 1990s, has turned significantly positive, whereas the capital-deepening component of labor productivity growth has been much smaller than in the past.

INSERT here: Figure 3. Contributions to GDP growth

The Role of Structural Reforms to Raise Potential Output

Microeconomic structural policies can make a significant contribution to achieving faster sustainable growth with high levels of employment. By extending and improving the functioning of markets, structural reforms can remove impediments to full and efficient use of resources and allow for higher dynamic efficiency, making it easier to achieve widely accepted economic and social goals.

Clearly, a full-blown exploration of the potential of microeconomic policy changes for improving overall economic performance is well beyond the scope of this paper. However, before providing a fairly parsimonious formal exposition of the main transmission channels from structural reforms to aggregate economic performance, we consider it useful to begin with a brief non-technical discussion of the basic relationships between labor, product and capital market settings and macroeconomic outcomes as identified in the economic literature.

Starting with labor market institutions, two different – though interconnected - perspectives on the macroeconomic impact of labor market reforms may be distinguished: (a) a productivity-enhancing channel, whereby better working labor markets allow for an efficient (re-)allocation of labor and increase human or physical capital accumulation, thus raising growth and real incomes; and (b) an employment-enhancing channel, whereby more employment-friendly institutional arrangements provide stronger incentives to participate in the labor market, crack down on insider-outsider barriers and reduce structural unemployment, basically by lowering the mark-up of wages over the reservation wage.

Productivity growth and equilibrium unemployment are jointly determined endogenous variables in the economy, and there are several theoretically plausible ways in which the fundamental determinants of equilibrium unemployment may affect productivity growth, and vice versa.[2] However, these relationships can go either way and there is little evidence that they are either important or robust, in particular over the medium to longer term; thus "we should not expect to see any strong relationship between productivity growth and unemployment trends" (Krugmann, 1994). As a consequence, this allows

consideration of the impact of structural labor market reform policies on equilibrium unemployment and on long-run growth, treated separately.

Product markets reform, broadly speaking, tries to increase competition and reduce monopoly rents in previously sheltered sectors, often in the form of removing entry barriers. A higher elasticity of product demand facing firms shifts the aggregate labor demand curve in a favorable way and implies, ceteris paribus, lower equilibrium unemployment; basically this mechanism works by driving away excess rents accruing to producers, labor, or both, which had the implication of lower output and employment than under competitive conditions.

Moreover, the strengthening of competitive forces will reinforce economies' capacity to respond to adverse shocks. As prices and wages become more sensitive to market conditions, they should adjust faster than in the past, reducing cumulative losses in output and employment over the medium term which may be associated with the adjustment process.[3]

Product market liberalization/deregulation may also have straightforward implications for efficiency. For example, new entrants may use more advanced technologies compared to incumbent producers. Similarly, previously sheltered sectors may be forced to reduce labor hoarding and excess capacity given higher competitive pressure. Moreover, more competition may well drive up the rate of technological and organizational innovation.[4] Indeed, there is increasing evidence against the view that firms enjoying significant market power plough back excess profits into higher rates of R&D and innovation. Rather it appears that lack of competition tends to provide little incentive for

firms to pursue technological innovations, slows down its diffusion and impedes a higher variety and quality of goods and services delivered to consumers.[5]

Finally, academic research suggests that an efficient financial sector is crucial for realizing the economy's full growth potential, and financial market integration can reasonably be expected to enhancing efficiency through two main channels, i.e., the exploitation of the scale and scope effects inherent in financial activities and increased competitive pressure on financial intermediaries.[6]

In synthesizing empirical findings, the basic mechanisms sketched above suggest to distinguish three separate, though interconnected channels to analyze the effects of structural reforms in labor, capital and product markets on macroeconomic performance: (i) employment-friendly shifts in wage-setting and increased participation; (ii) more price-elastic product demand; and (iii) increased productivity growth. The impact assessment of recent structural reform efforts in the EU reported below will thus be based on a backward-looking macro-econometric simulation analysis of stylized shocks to these variables.

Of course, at any given moment of time, output and employment are determined by aggregate demand, so variations in aggregate demand will "explain" precisely the observed patterns of output growth (relative to trend) and unemployment. But "this is more of a tautology than an explanation" (Nickell, 2003). Obviously, the level of aggregate demand which is sustainable over the medium and long-term will depend on the supply-side characteristics of the economy, and any attempt to further stimulate aggregate demand and hence lower unemployment below its equilibrium level (the NAIRU) will sooner or later run into an inflation constraint.

Box 1: A simple model of output and employment

i. The *wage-setting equation* relates the real product wage in efficiency units (w/a) to the unemployment rate and a shift-parameter, Z, that captures other relevant labor market conditions determining the mark-up of wages over the reservation wage.

$$w/a = f(u,Z) \quad (1)$$

Ceteris paribus, real wages will grow at the rate of a (the level of labor-augmenting technology), so that w/a remains constant.

ii. The *short-run labor demand relation* is determined by the first derivative of the production function with respect to labor. Using a CES production function,

$$Y = A\,(b(aL)^{p} + (1-b)K^{p})^{1/p} \quad (2a)$$

- in which A is a multiplicative constant, K is capital, aL is labor in efficiency units, b is the share parameter on labor, and p is a function of the elasticity of substitution between capital and labor - the first-order condition (including the mark-up, μ, of prices over the wage) is:

$$w/a = (Ab/(1+\mu))\,(b+(1-b)(K/aL)^{p})^{(1-p)/p} \quad (2b)$$

iii. The *long run labor demand relation* is determined by the zero-net-profit condition that a firm's revenues from output just cover the cost of production:

$$Y = w/a\,aL + K(r+\delta), \quad (3a)$$

with the real interest rate (r) and the rate of depreciation (δ) reflecting the user cost of capital. After substituting (2a) and (2b) into (3a), the condition can be rearranged to yield:

$$(r+\delta) = [(1-b)+(b-b/(1+\mu))\,(aL/K)^{p}]\,[b(aL/K)^{p} + (1-b)]^{(1-p)/p} \quad (3b)$$

For a given user cost of capital, this condition pins down the capital-labor ratio and, by implication, the real product wage.

iv. In the *steady state*, the economy satisfies the labor supply relation, as well as both labor demand relations. Capital, labor and output grow at the same pace, as do real wages and technology (thus maintaining a constant real product wage in efficiency units). The labor share that is compatible with the steady state is a negative function of the price mark-up; labor earns its marginal product (adjusted for the price mark-up) and employment equals equilibrium employment.

Note that output and (un-)employment are at any moment determined by real demand; in the long-run, though, unemployment and real demand will generally tend towards a level consistent with stable inflation, termed its equilibrium level. Given that in the steady state the ratio of capital to effective labor is constant, the labor share will be constant as well. The growth of real incomes is ultimately determined by the rate of technological progress.

v. The immediate effect of a *reduction in the wage mark-up* will be a real wage reduction and a decrease in the labor share but, as quantities adjust, the labor share will move back to its original level (Figure B.1). Suppose that the wage-setting curve WS_0 shifts outwards, say because of more employment-friendly wage bargaining mechanisms. The favorable shock will initially lower both the real product wage and the labor share, but in response to lower wages and higher profits, firms will scale up labor, capital and economic activity. This causes a shift of the short-run labor demand curve to the right (from LDs_0 to LDs_1) and a gradual reversal of the initial decrease in the wage and labor share. The new long-run equilibrium E_1 will again be on the long-run labor demand curve LD_L and, as the parameters of this curve were not affected, both the capital-labor ratio and the labor share are unchanged from their original values. In the long-run, a favorable shift to the wage-setting curve thus comes entirely to the benefit of higher employment.

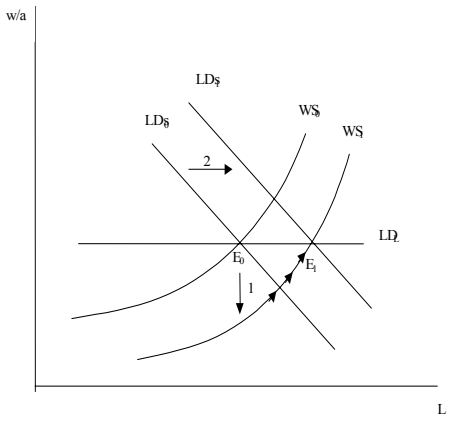

Figure B.1

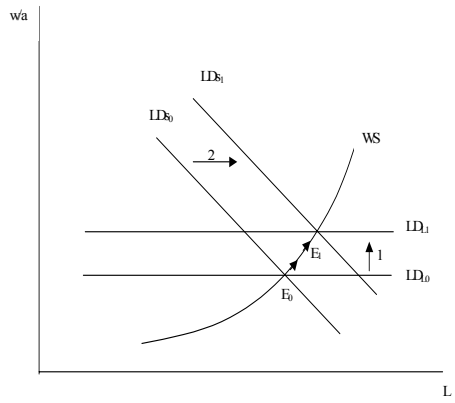

Figure B.2

vi. The effect of a favorable shock to the *long-run labor demand* condition will be a permanent increase in the real product wage and the level of employment, while the labor share can rise or fall depending on the elasticity of substitution between labor and capital (Figure B.2). Suppose an increase in competitive pressures makes product demand more price-elastic; the reduction in the mark-up of prices over wages will shift the long-run labor demand curve upwards (from LD_{L0} to LD_{L1}) and trigger substitution towards a higher capital-labor ratio and a higher real product wage. Despite the capital-for-labor substitution, it is the increase in capital that dominates the impact on labor demand and raises employment. If the elasticity of substitution between capital and labor is unity, labor demand shocks mirror changes in the labor share because b and μ are the only source of change in the labor share in this case.

vii. In the theoretical framework sketched above, structural reforms to improve the working of labor, capital and product markets can be thought of as affecting macroeconomic performance in three ways: (i) by shifting the wage-setting curve in an employment-friendly way; (ii) by making product demand more price-elastic and (iii) by stimulating the rate of (labor-augmenting) technological progress. Obviously, this separation serves analytical purposes as structural reforms may impact on macro-economic outcomes simultaneously via more than one channel only.

Structural Reforms and Macroeconomic Performance: Recent EU Achievements

This section now turns to an assessment of the potential macroeconomic impacts of recent structural reforms on the EU economy in quantitative terms, using the EU Commission's macro-econometric model QUEST II. Based on an empirical assessment and review of labor and product market reforms in the EU[7], the econometric model has been subjected to "stylized reform shocks" designed in a way to broadly represent the accomplishments achieved over the past five years or so. It should be stressed at this point, however, that the simulations do not cover the full set of structural reform actions taken; in particular, the

impact of financial market integration will be discussed separately; moreover, the structural reforms in product and labor markets have typically been modeled as being implemented in a big bang approach, thus abstracting from timing and sequencing issues of gradually phased-in reforms.[8]

EU Member States have undertaken an array of reforms of labor market institutions over the past couple of years. Reform efforts aimed at stimulating employment have addressed, inter alia, tax and benefit systems, for example in the form of cuts in payroll taxes for targeted groups or in-work financial support for low-wage earners, more active and preventive labor market policies, and a modernization of work organization, including the facilitation of part-time work and more flexible work contract arrangements.

While it is certainly difficult to establish precisely the contribution of the various reform efforts, there can be little doubt that they have produced significant results in terms of a higher employment content of growth, a trend increase in labor force participation and employment rates, and a reduction in levels of structural unemployment as indicated by a fall in the NAIRU. In particular, over the period 1995 to 2001:

- the total number of jobs increased by about 12 million, and the overall employment rate increased by almost 4 percentage points;
- labor force participation rose by around 8 million, driven largely by women, reflecting an increase in the trend participation rate of around 1.5 percentage points; while
- unemployment fell by more than 4 million, i.e., a reduction in the unemployment rate of 3 percentage points, with about half of the overall decline being attributable to a fall in structural unemployment.

However, it must also be acknowledged that progress in reform has been fairly uneven across countries and generally rather piecemeal. Moreover, all the major economies of the euro-area are still plagued by relatively high structural unemployment. Overall, this suggests that the various labor market policy initiatives implemented over the past several years may offer only a partial explanation for the apparent area wide improvement in the short-run unemployment-inflation trade off. In fact, it is difficult to account for the fall in the NAIRU without invoking the role of widespread wage moderation, inter alia based upon informal incomes policies in a number of countries, which do not constitute reforms per se.

Against this background, the simulation assessment exercise looks at structural reforms resulting in higher labor force participation and an employment-friendly shift of the wage-setting curve, associated with lower equilibrium unemployment. An important feature of such a scenario is that the reform groupings as defined here will lead to a reduction in the NAIRU and raise output and employment levels, but they will not be associated with a permanent increase of potential growth rates. However, the QUEST II model does not allow direct examination of a shock to the NAIRU itself. The NAIRU is an endogenous variable in the model, determined by the wage setting behavior and the labor demand schedule. Thus, to keep the simulation design as simple as possible, the labor market reform scenario has been implemented in the form of a gradual increase in the overall participation rate by a cumulated 1.5 percentage points combined with an ex ante downward shift of the wage setting rule by 1% uniformly in all countries; moreover, reflecting the structure of net job creation (part-time-jobs, temporary work etc.), it has been

assumed that the average productivity of additional employment amounts to only 80% of the baseline level.

The numerous efforts undertaken in the second half of the 1990s to increase the level of competition on European product markets are probably best illustrated by the significant progress made in completing the Internal Market for goods and by the move towards liberalization and deregulation of the network industries. The Internal Market has contributed to an increase in intra-EU trade and investment flows. The effects of market entry by foreign firms were also reflected in a high level of turbulence in market leadership, even if industry concentration remained more or less constant. The liberalization and deregulation in the network industries, notably in telecommunications and, to a somewhat lesser degree, in electricity, has paid off in terms of lower (relative) prices.

In addition, market integration and competition appear to have contributed to a permanent decline in price differences between EU Member States, but the pressure put on mark-ups by the completion of the Single Market Programme may well tend to recede somewhat over time.

There is some evidence, however, that structural reforms in the network industries have led to a more permanent decline in mark-ups. For example, simply summing up the estimated reduction in price mark-ups in the electricity and the telecommunication sector, weighted by their relative share in business sector output, results in a decline of the economy-wide mark-up of almost 50 basis points. Overall, roughly translated into aggregate figures to be used in the simulation assessment exercise, it is estimated that the sketched developments corresponded to a reduction in the average price mark-up of about ½ of a percentage point.

Recall that product market reform, especially a reduction in price cost margins, will most likely have repercussions on wage setting. As to the potential magnitude of such an effect, the trade union bargaining model presented in the Layard, Nickell and Jackman textbook,[9] for example, suggests for a plausible configuration of parameters that a reduction of the price cost mark-up by one half of a percentage point would reduce wages by about 2%. The corresponding wage rule in QUEST II is somewhat less responsive, predicting a fall of wages in a magnitude of about 1% in such a case. Thus, the scenario analysis presented here allows explicitly for significant interactions between structural reforms in product and in labor markets, taking into account two main mechanisms through which product market reforms can affect labor markets (Blanchard and Giavazzi, 2001). First, stepping up competition on the product market increases output and the demand for labor, and makes the latter more sensitive to wages. Second, competitive pressures in the product market dissipate economic rents, putting downward pressure on the associated wage premia.

As outlined before, structural reforms can also be expected to have a positive impact on both productive and dynamic efficiency in the economy. Typically, while firms produce at lowest cost under conditions of competition, they tend to operate inefficiently (through overstaffing, higher wages, lack of response to new opportunities, poor management) when competitive pressures are low. Thus, the process of restoring productive efficiency induced by structural reforms will be associated with a level increase of total factor productivity.

Arguably, there are also several channels through which structural reforms may have fostered dynamic efficiency, thus stimulating the growth rate of total factor productivity in a more permanent way. For example, several studies of the finance-growth

nexus have emphasized the link via innovation activities and the entry of new firms. Carlin and Mayer (1999) found that, in particular, the growth of industries relying on R&D is strongly affected by financial variables, while the estimates are less robust in respect of fixed capital formation. Accordingly, they conclude that financial development stimulates growth in industrial countries more by promoting investment in R&D than by facilitating physical capital accumulation.

However, in general the empirical evidence is not at all supportive of a significant acceleration of total factor productivity growth in the EU over the past couple of years. Against this background, we will therefore restrict ourselves in the simulation exercise to analyze a level shock to labor productivity; translated into QUEST model terms, this is implemented as once and for all level increase of TFP by 1%. It should be kept in mind, however, that this scenario is only intended to illustrate the dynamic response of GDP and employment to an increase in productive efficiency, but should not be interpreted as reflecting the stylized facts with respect to productivity developments in the past couple of years.

Turning now to the results of our simulation assessment exercise, a stylized structural reform scenario equivalent in scale to a hypothetical reduction in the NAIRU by 1.5 percentage points, a reduction in the price mark-up by ½ of a percentage point and a level increase of TFP by 1 percentage point has been analyzed. The simulation results suggest a medium-term increase in GDP of about 4%; in terms of growth rates, this translates into an acceleration of output growth by about 0.5 percentage point annually over a period of 7 to 8 years. By implication, such a finding would be consistent with an acceleration in potential growth from around 2% in the first half of the 1990s to around

2.5% in the past couple of years. However, bearing in mind that the TFP effect is not well supported in the data for the second half of the 1990s, a more cautious assessment would shave off 1 percentage point of the overall GDP effect, and one tenth of a percentage point of the temporary acceleration of potential growth.

Typically, in simulation exercises of this type structural reforms stimulate growth only temporarily; they lead to a reduction in the NAIRU and raise output and employment levels, but they are not associated with a permanent increase of potential growth rates. Basically, the latter would require a permanently higher rate of growth of total factor productivity, with the main channels to raising equilibrium growth rates, as identified in the endogenous growth literature, being associated with institutions which raise savings, raise human or physical capital accumulation, increase technological and managerial innovation, and raise the start-up rate of new companies.

Obviously, the quantitative impact of structural reform policies on the rate of potential output growth and the NAIRU is hard to pin down precisely. Consequently, policy makers are likely to be faced with considerable uncertainty as to the prevailing rate of equilibrium unemployment, and therefore also to the appropriate rate of expansion of economic activity consistent with price stability. However, in the medium term, provided a successful implementation of the tabled structural reform programs, policy makers need not be overly alarmed by growth rates that look high by past experience and should avoid cutting off economic expansion prematurely, as the pay-off from structural reforms starts to materialize in form of lower unemployment and higher rates of sustainable growth.

The simulation exercises also offer some insights into the adjustment dynamics to structural reforms in product and labor markets. Obviously, the impacts on employment and

wages can be quite different in the short and the long-run; for example, productivity improvements induced by increased competitive pressures may go hand in hand with labor shedding in the short-run, while output expansion and entry of new firms will only gradually materialize to offset the short-run employment losses over the medium to long term. While the exact nature of such unpleasant trade-offs facing policy makers has not yet been fully explored, the simulation results suggest that short-run costs in terms of real wages and employment are minimized in comprehensive reform scenarios that take the interactions between the institutional design in labor and product markets into account.

Summing Up

This section has explored the potential interactions between institutional reforms in labor, capital and product markets and macroeconomic performance in terms of output, growth and (un-)employment in the EU. Reviewing the broad patterns of structural reforms and improvements in the functioning of markets in the past couple of years, we find in a backward-looking illustrative macro-econometric simulation exercise a medium-term increase in GDP relative to its baseline level of about 3-4%. In terms of growth rates, this translates into an acceleration of output growth by almost ½ of a percentage point annually over a period of 7 to 8 years. Our assessment suggests that without the progress in structural reforms, and not forgetting the observed wage discipline, there would be 5-6 million fewer jobs in the EU today, about 2 million more unemployed people, and the average growth rate would have been 2.2% instead of the 2.6% realized in the period 1996-2001. Thus, structural reform efforts have indeed borne fruit and delivered significant benefits in terms of output and employment levels.

However, it has to be kept in mind that typical estimates of the euro area's potential output growth rate have been in the 2¼ to 2½ percent range; moreover, as our results indicate, the growth stimulus from past structural reforms tends to fade away over time. Indeed, if reform fatigue were to win the day, Europe would appear destined to suffer a set-back to a medium term growth path barely exceeding 2%; in fact, as will be argued in the next section, in the absence of policy change population aging will push Europe's potential growth even below this level. Thus, to achieve an annual rate of growth of around 3% for the EU as a whole over a prolonged period of time, as formulated at the Lisbon summit, the momentum and the breadth of structural reforms will certainly have to be maintained and increased. Consequently, the current weakness in economic activity, with output growth clearly below potential in 2001 and 2002, must not be taken as an excuse for further delays in implementing the comprehensive structural reform agenda as agreed in Lisbon and reinforced in Stockholm. This is to be combined with growth supportive macroeconomic policy making, which – while maintaining price stability and a sound medium-term orientation of fiscal positions close to balance or in surplus – should aim at stabilizing growth close to potential.

3. The Impact of Aging[10]

In coming decades, the EU – and also its accession countries – will undergo unprecedented changes in the size and structure of its population. Fertility rates are expected to remain well below the natural replacement rate, and life expectancy is projected to continue to increase by about one year each decade. Migration flows are hard to predict, but in the absence of major policy changes, they are unlikely to reverse the overall demographic

pattern. According to the central baseline scenario of Eurostat, the total EU-15 population is projected to increase from 376 million in 2000 to 386 million in 2020. After that, it will to start to fall reaching 364 million in 2050. These developments in the EU stand in sharp contrast with those in the US. The recent census in the US has indicated a rebound in the fertility rate to 2.2; coupled with higher levels of inward net migration, the population of the US is projected to increase by 130 million between now and 2050. The significance of this becomes evident considering that the population in the US was only half that of the current 15 EU Member States, whereas it will be 40 million larger than the EU-15 population by 2050.

INSERT here: Figure 4. Demographic developments in the EU and the US

It should be noted that the aggregate picture for the EU mask significant differences across countries. France and the UK, for example, are projected to see an increase in total population size over the period until 2050, while other countries such as Germany and Italy will witness large declines.

Obviously, the EU is not the only region in the world facing demographic upheaval due to falling birth rates and lengthening life spans. This is evident from Figure 5 which compares dependency ratios for five country blocks, the EU, the US, Japan and with the rest of the world broken into two distinct groups of countries, namely “fast aging” and “slow aging”. This classification for the rest of the world is similar to the approach adopted by Turner et al. (1998) and is based on the dependency ratio calculations underpinning the UN’s latest global population projections. In effect those countries which are predicted to experience an increase in their overall dependency ratio over the coming decades are classified as fast aging, with this latter group made up of OECD member countries (other

than EU 15, US, Japan, Mexico and Turkey) plus all of the Eastern European countries, Russia, China, Hong Kong, Korea, Singapore and Thailand. As regards future projections, while uncertainties exist, especially regarding the evolution of fertility rates, one fact appears indisputable namely that large increases in the share of the over 65s in the overall populations of all five areas is set to occur over the coming decades due to global increases in life expectancy. These trends in life expectancy are also a feature of the last 50 years but what is new is the reduction in the share of the population of working age which provides the economic support for the youth and retired populations. Changes in the 15-64 age group will ensure that increases in dependency ratios will occur in four of the five areas with the "slow aging" group being the only exception. It is envisaged that the aging process, leading to higher dependency ratios in the remaining areas, will have major economic and social consequences for the countries affected.

INSERT here: Figure 5. Dependency ratio developments

In Europe, the working-age population of the EU-15 is projected to decline very significantly from 243 million in 2000 to 203 million in 2050, a drop of 40 million persons or 18%. Over the same period, the population over older persons (aged 65 and above) will increase by 40 million persons, an increase of over 60%. Of this group, the biggest increase will be amongst the very elderly, i.e., persons aged 80 or over. Their numbers will triple in size from 14 to 38 million in 2050, which is particular relevant given that they are the most intensive users of health care and long-term care.

INSERT here: Figure 6. Working-age population in the EU-15, US and Japan

Overall, these shifts in population structure will lead to a dramatic change in the old-age dependency ratio which is projected to approximately double from 24% for the EU-15 today to almost 50% in 2050. While the demographic burden of aging will differ significantly across current EU Member States in absolute terms, with old-age dependency ratios rising to levels well above 50% in some countries, what is common for all is the strong increase relative to current levels. Recent UN population projections suggest broadly similar trends in old-age dependency ratios for the countries currently negotiating entry into the EU, exhibiting even lower fertility rates and significant net out-migration.

INSERT here: Figure 7. Old-age dependency ratios in the EU-15

INSERT here: Figure 8. Old-age dependency ratio in EU accession countries

Clearly, increasing levels of prosperity over time have been closely linked to sustained increases in labor supply and high levels of productivity growth. However, aging population means that these sources of growth cannot be taken for granted in the future. As indicated above, the working-age population in the EU will start to shrink as of 2010 when the post-war baby-boom cohorts enter their retirement years. If translated into a corresponding fall in labor supply, and unless offset by increases in productivity growth, this development is bound to reduce the rate of potential growth.

The EU Commission's macro-econometric model QUEST II has been used to assess the quantitative implications of demographic change. In absolute terms the EU's annual average potential growth rate over the period 2000-2050 would fall from the baseline rate of 2.1% to 1.3% in a no-policy change scenario, with the Japanese potential growth rate falling even more, to an average of only 1.1%. It should be underlined that these are annual

average growth rates and that the EU will witness individual years with potential growth rates at the end of the simulation period of slightly below 1%, with Japan experiencing growth rates substantially below 1%.

INSERT here: Figure 9. Simulated potential growth rates in the EU-15, US and Japan

Note that the effects on potential output in the various areas are much greater than the impact on changes in living standards. This divergence between the two indicators reflects the influence of differences in the outlook with regard to the population of working age which has an important effect on the relative productive capacity of economies. In overall terms, in the case of the EU and Japan, the fall in average potential growth rates over the next 50 years is roughly double that of the decline in living standards compared with the technical baseline of no change in population trends.

In terms of growth rates of GDP per capita, aging is expected to reduce the annual average rate of growth, relative to the baseline, by around 0.4 of a percentage point in the case of the EU and Japan and by around a ¼ of a percentage point in the US. The pattern of change in living standards globally is largely dictated by underlying productivity and dependency ratio developments, with the failure of the slow aging countries to capitalize on their more favorable demographics, in the form of a rapid catching up in income per head, reflecting their ongoing relatively poor productivity performance.

Thus, with respect to GDP per capita growth rates, the scenario shows very little differences over the next 50 years between the EU, the US and Japan, with annual average growth rates in income per head in a very narrow range of between 1.5%-1.7%. However, its when one compares potential output growth rates that one sees the extent of the difference in the economic outlook for the respective areas, with the US expected to grow

at a healthy annual average of 2½% over the next 50 years compared with rates of 1¼% and 1% in the EU and Japan respectively. These differences in potential growth rates are almost totally explained by changes in the outlook for the growth in the population of working age, since the model assumes that there is no change in TFP growth rates and since any effects from higher levels of capital intensity on labor productivity are of a relatively small order of magnitude, especially since a significant proportion of the excess savings are likely to be invested abroad and not in the domestic capital stock.

Growth developments along these lines would have a profound impact on global output distribution. Figure 10 shows the position in 2000 and in 2050, with the most important developments being:

- the growth in the relative share for the slow aging group of countries, which sees its share of world output growing from 25% in 2000 to 39% in 2050; the main driving factor behind this increased share is due to demographic developments as opposed to any underlying productivity improvements.
- the US enjoys a small increase in its share of world production which contrasts sharply with the relative performance of the EU and Japan both of which are expected to witness a significant decline in their relative economic importance in the world over the coming decades.
- In the case of the EU, its share of world output falls from 18% at present to 10% in 2050, with Japan's relative share being halved from 8% at the moment to 4% at the end of the simulation period. Finally, it is worth remembering that in 1970, the EU produced 25% of global output compared with 23% for the US. While the US has been able to retain its share over the last 30 years and is expected to continue to do so over

the next 50 years, the EU has already witnessed a steady erosion in its share of global output, a trend which is forecast to continue over the coming decades.

INSERT here: Figure 10. Global output distribution

Obviously, a decline in potential growth is not only a concern because it will lead to a relative decline in prosperity. It is a major problem because it will make it ever more difficult to meet the expectations and demands of a growing elderly population. Much of the pension entitlements which citizens are accruing in Europe's public systems today are based on an assumption of a potential growth rate of around today's level. EU policy makers concern about the consequences of aging populations in the first instance arose from the projected implications for public spending on pensions, health care and long-term care. Indeed, the most recent report by the EU's Economic Policy Committee on the budgetary challenges posed by aging populations arrives at the conclusion that on average, age-related public spending could increase by between 5 and 8 percentage points of GDP by 2040, and by much larger amounts in certain countries.

INSERT here: Figure 11. Projections of age-related public expenditures

Obviously, failure to address the budgetary challenges indicated in this type of no-policy-change scenario analysis would lead to unsustainable public finances in the long-run. In this context, sustainability is not simply a matter of avoiding debt accumulation. Sustainability also requires keeping the tax burden at a reasonable level, and not squeezing out other essential public expenditures such as investment in human capital and in R&D.

It is against this background that the EU growth strategy agreed in Lisbon has been refined and amended. The Lisbon European Council diagnosed the key long-term challenge

facing Europe as slow growth. It set in place a strategy to inject dynamism into the European economy and fixed an ambitious goal for the EU to raise the potential growth rate to 3% by 2010. The Stockholm European Council in 2001 was more specific on the policy prescription to deal with demographic changes. It endorsed a three-pronged approach which should be tailored to the specific situation of each Member State. This consists of:

- first, a fast pace of debt reduction;
- secondly, raising employment rates especially of women and older workers;
- and thirdly, reform of pension and health care systems, including where appropriate greater recourse to the funding of pension systems.

A thorough assessment of how EU Member States are faring as regards each of these three prongs is clearly outside the scope of this paper. However, it is probably fair to say that there appears to be a growing "delivery" gap between the commitments made to prepare for aging populations and the actual steps and reform measures which are being taken. On the pace of debt reduction, progress has been mixed in EMU. Many countries in the euro area have achieved the goal of the stability and growth pact, but significant underlying deficits remain in several Member States and the EU Commission has been forced to launch the excessive deficit procedure provided for in the Stability and Growth Pact in some cases. Ministers have repeatedly endorsed their commitment to sound public finances. But it is actions and not words that count. Ambitious targets have been set to raise until 2010 the employment rates of older workers to 50% and to increase the effective retirement age by 5 years. Indeed, raising the effective retirement age appears to be the single most potent reform option tackling the negative growth impact from declining working-age populations, with a 1 year increase estimated to shave off between 0.6 to

1 percentage point from the public expenditure rise (Mc Morrow and Roeger, 2002). However, most member states are still shying away from the required bold action, and the employment targets are therefore in jeopardy of not being met.

INSERT here: Figure 12: Employment rates 2001, older workers

4. Concluding Remarks

The very first years of the new century have seen weak economic activity in the EU, largely reflecting cyclical adjustments to global and internal imbalances. However, there can also be little doubt that the underlying rate of potential growth in Europe has failed to accelerate in a sustained way. Moreover, available long-term scenarios paint a relatively alarming picture of significant reductions in potential growth rates in the EU over the coming decades, with the slowdown in potential growth also making the budgetary implications of aging, in terms of higher pensions and health care costs, more difficult for the individual economies to bear. While such projections based on no-policy-change assumptions may be somewhat unrealistic given that Governments are unlikely to stand idly by, they nevertheless give an idea of the scale of the task faced by EU policymakers, and the speed with which they must act, in devising policy measures aimed at avoiding, or at least cushioning, the shock to peoples' relative living standards and to their expectations in terms of future potential growth.

It is clear that the EU's Member States will have to adopt a range of macro and structural policy actions to moderate the economic burden of aging. In terms of fiscal policy, the broad framework for ensuring budgetary sustainability, in the face of substantial

age-related spending pressures, would appear to be in place in the form of the Stability and Growth Pact. The Pact will be crucial in avoiding the emergence of unsustainable deficit and debt positions; however, in many countries more action will also be required to ease the significant disincentive effects in relation to work effort and labor supply decisions. With regard to the degree of readiness of the Community's labor markets to withstand the inevitable shock which is looming, increases in labor force participation rates, reductions in structural unemployment and an increase in the EU's effective retirement age from less than 60 at present to the statutory age of 65 are all highly desirable reforms. Finally, the EU must also continue to promote higher factor productivity growth through structural reforms aimed at both enhancing allocative efficiency and at increasing the flexibility of goods, services and capital markets in the Community, whilst simultaneously acting to ensure open and competitive trading conditions at the global level.

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Endnotes

[1] We are indebted to André Dramais, Barry Eichengreen, Mary McCarthy, Ronald McKinnon, Philippe Mills, André Sapir and Jan Host Schmidt for helpful comments on an earlier version of this paper. Of course, the usual disclaimer applies. The views expressed in this paper are strictly personal and do not necessarily correspond to those of the European Commission.

[2] Imperfect matching between unemployment and vacancies in combination with an innovation externality, for example, may be associated with a too low productivity growth rate and drive up equilibrium unemployment. For an overview discussion of the relationship between labour market institutions and economic performance in terms of unemployment and growth, see Nickell and Layard (1999).

[3] An analysis of structural impediments to quick and efficient adjustment to macroeconomic shocks, however, is outside the scope of this chapter.

[4] These arguments have been developed extensively in the endogenous growth literature; for a survey, see for example Barro and Sala-I-Martin (1995).

[5] For an overview on the relationship between competition and innovation see for example Ahn (2002), OECD (1997).

[6] For an overview discussion see EU Commission, The EU Economy 2001 Review.

[7] See EU Commission (2002a and 2002b).

[8] The exception to be mentioned here is the increase in labour force participation, which has been phased in over a period of five years.

[9] Layard, R., S. Nickell and R. Jackman, (1991) "Unemployment" Oxford University Press, Oxford, UK.

[10] This section is largely based on the analysis presented in Chapter 5 of "The EU Economy 2002 Review", European Commission (2002b), where Kieran Mc Morrow and Werner Roeger have been the main authors.

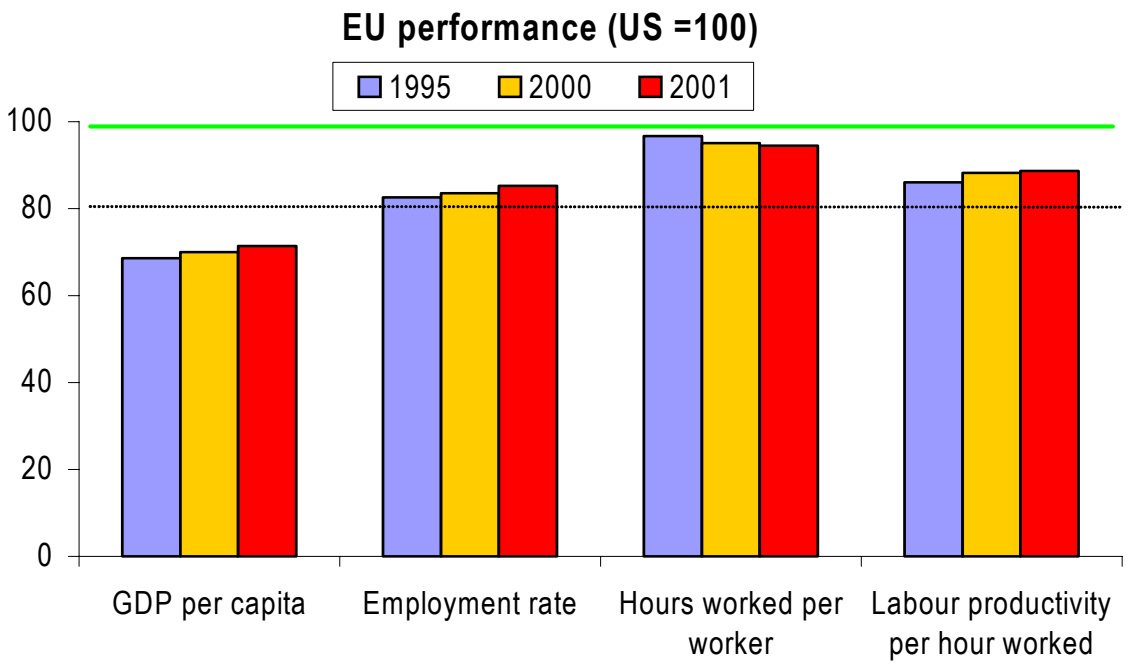


Figure 1. EU performance

Figure 2. Total and female employment rates

Contributions to GDP growth

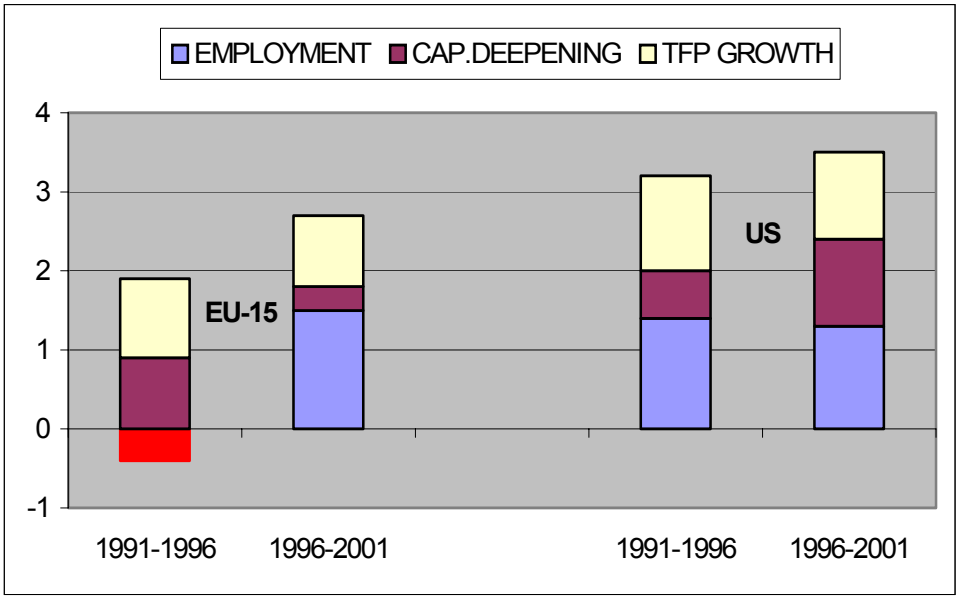


Figure 3. Contributions to GDP growth

Demographic developments in the EU and the US

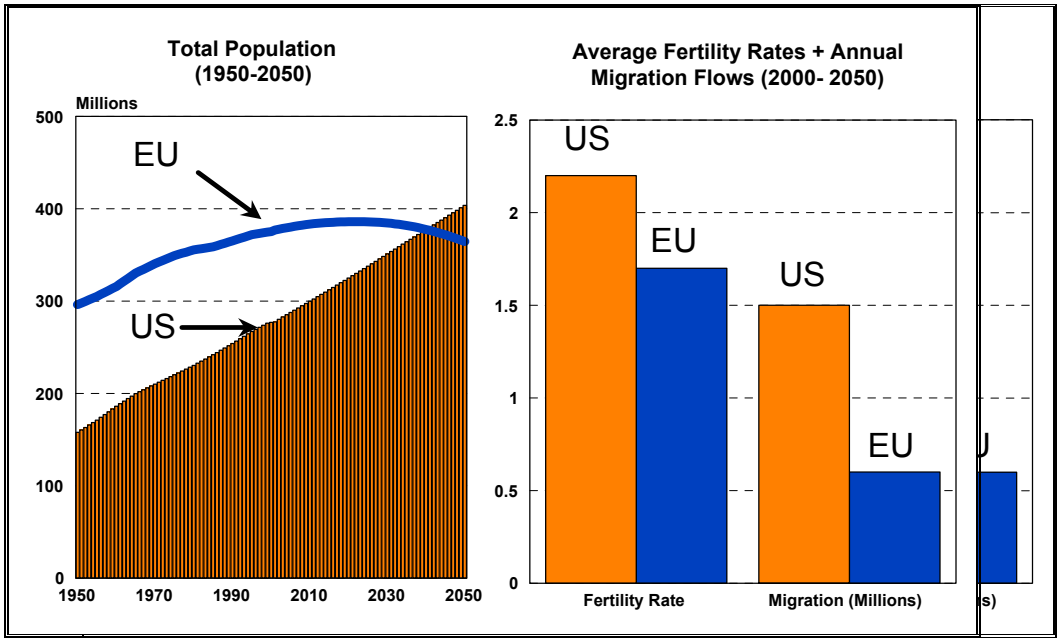
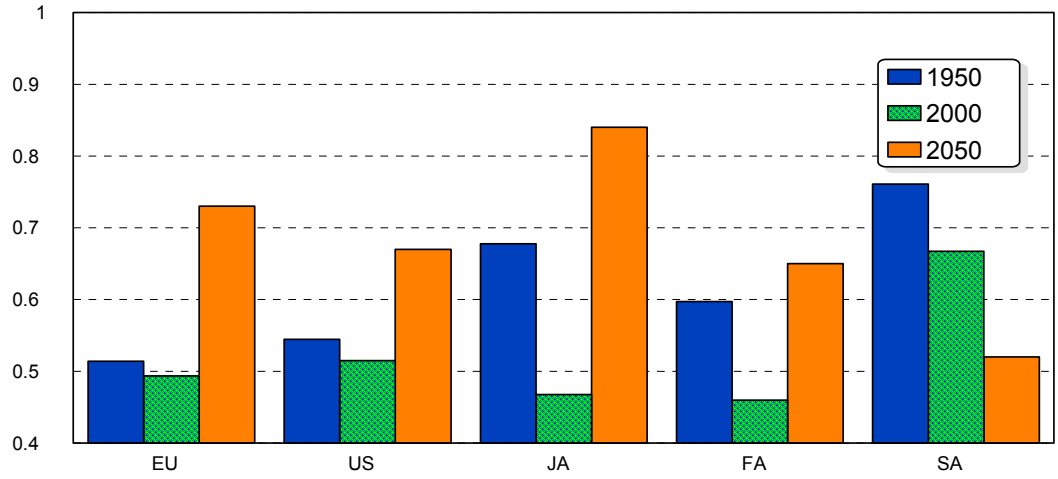


Figure 4. Demographic developments in the EU and the US

Dependency ratio developments



FA: “Fast Aging”: Rest of OECD countries excluding Mexico and Turkey, all of the eastern European countries, Russia, China, Hong Kong, Korea, Singapore and Thailand.

SA: “Slow Aging”: Remaining countries of the world not classified elsewhere.

Figure 5. Dependency ratio developments

Working-age population in the EU-14, US and Japan

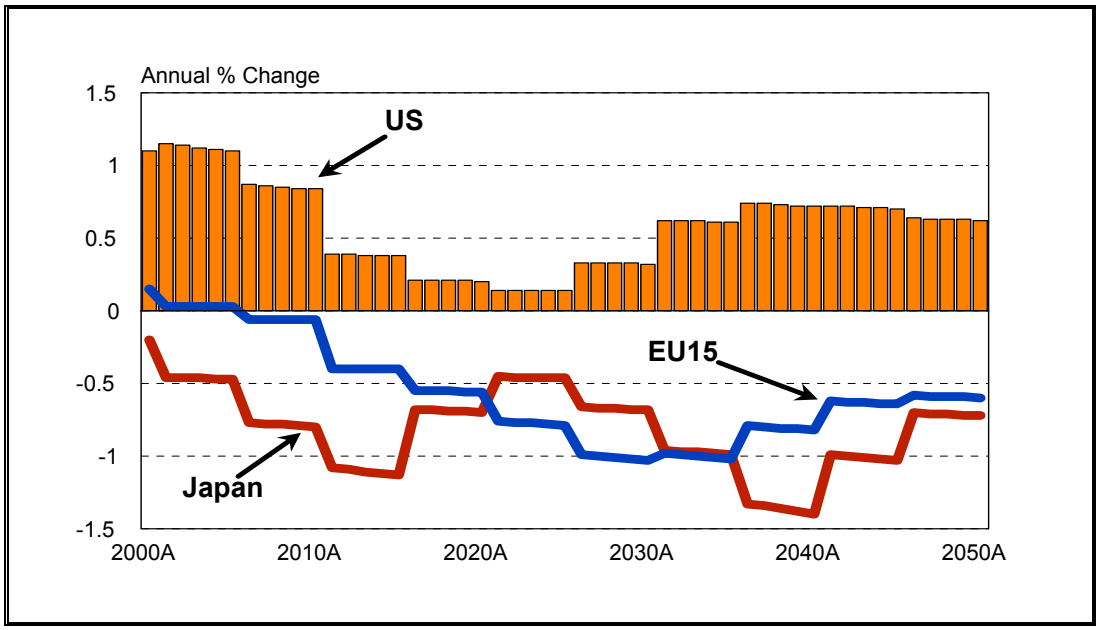


Figure 6. Working-age population in the EU-14, US and Japan

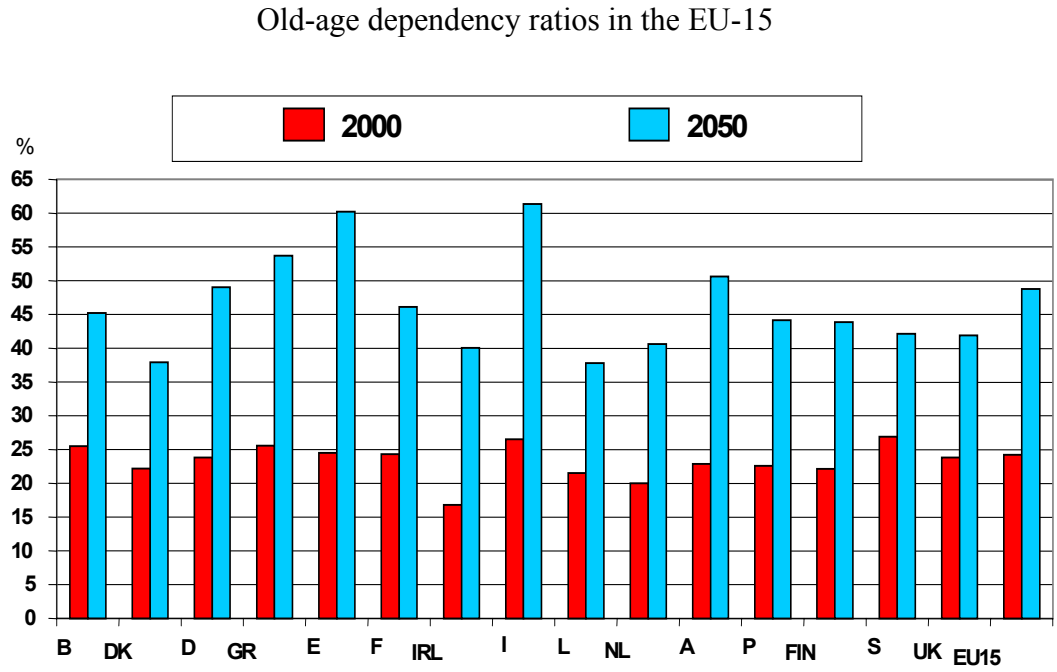


Figure 7. Old-age dependency ratios in the EU-15

Old-age dependency ratio in EU accession countries

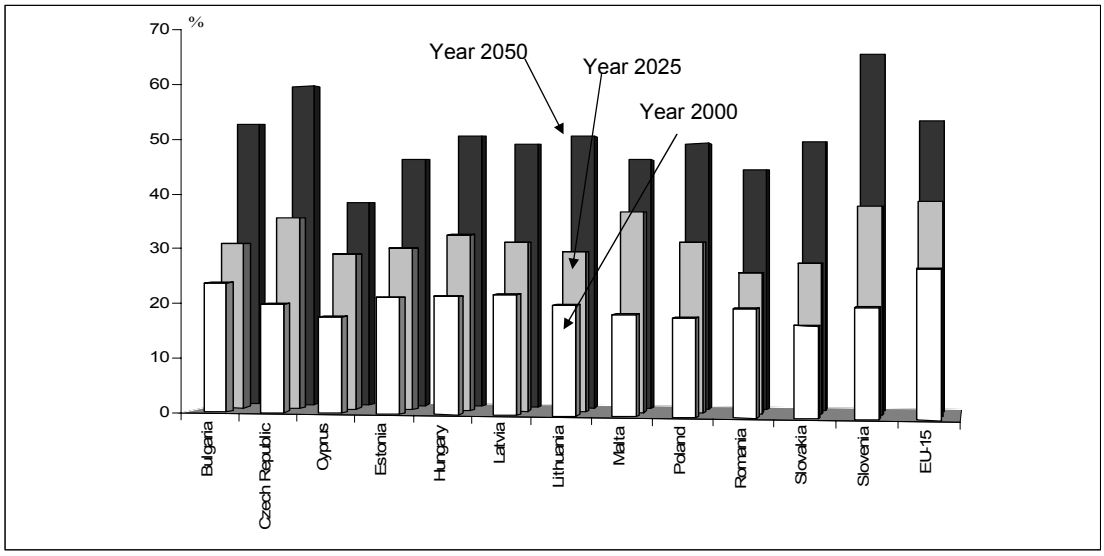


Figure 8. Old-age dependency ratio in EU accession countries

Simulated potential growth rates in the EU-15, US and Japan

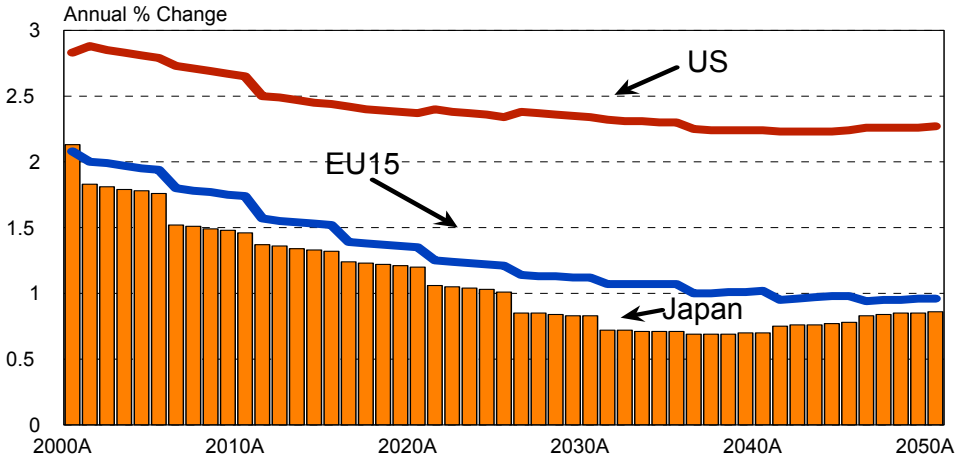


Figure 9. Simulated potential growth rates in the EU-15, US and Japan

Global output distribution

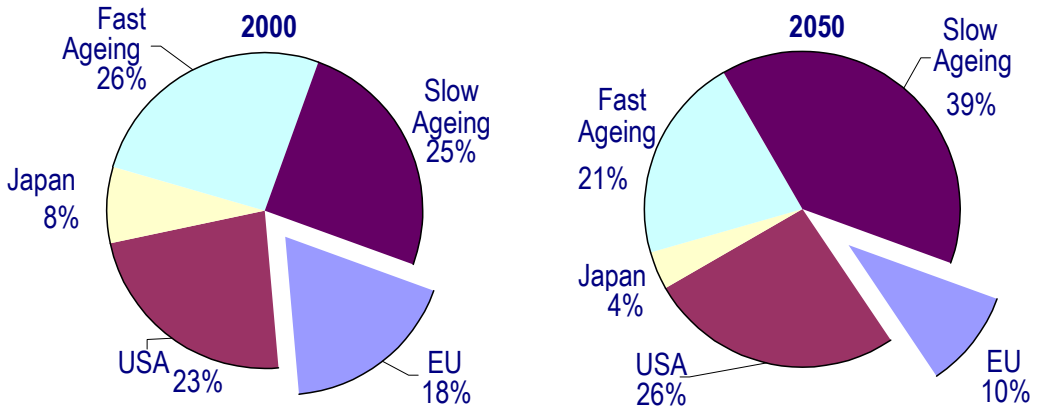
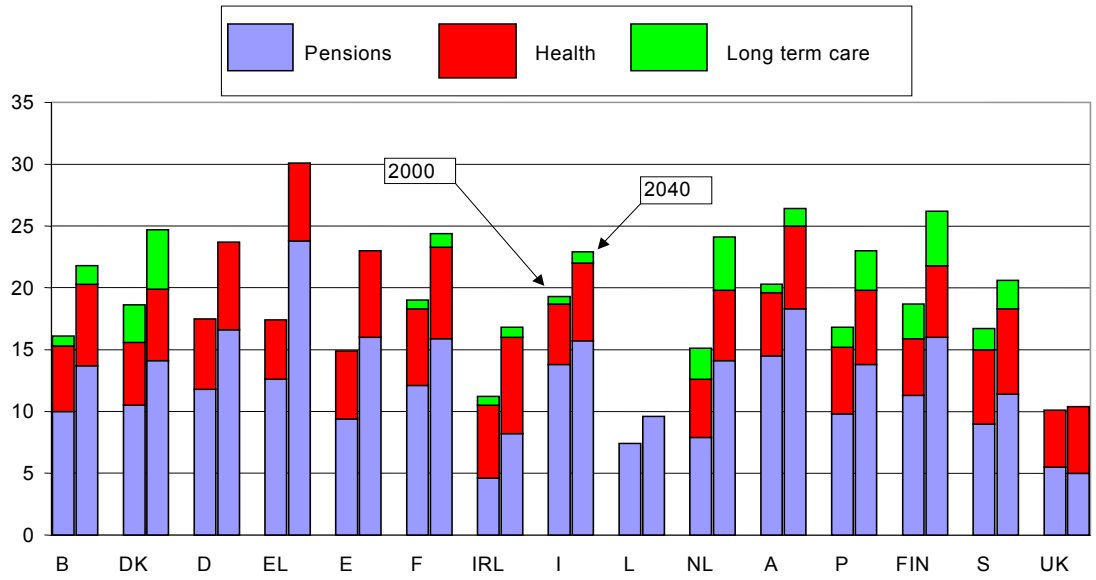


Figure 10. Global output distribution

Projections of age-related public expenditures



Source: Economic Policy Committee (2001).

Figure 11. Projections of age-related public expenditures

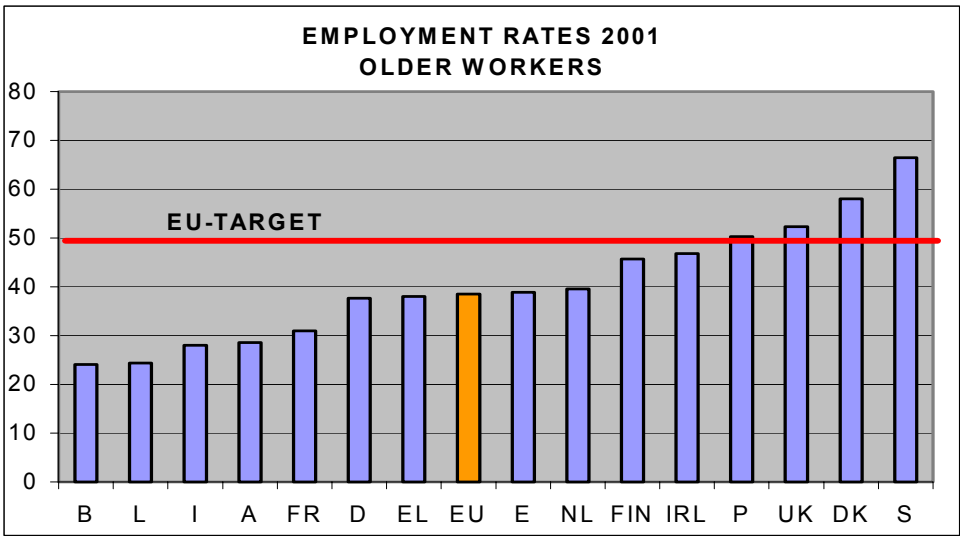


Figure 12. Employment rates 2001, older workers

REVIEW OF INTERNATIONAL ECONOMICS

The US Current Account, New Economy Services, and Implications for Sustainability*

Catherine L. Mann

Initially prepared for the conference: On the Future Agenda for Economic Policy, Institute for International Studies: European Forum, Stanford University, October 24, 2002

Abstract: This essay considers the implications for sustainability of the US current account of widespread uptake of 'new economy' services around the world. The main contribution is to estimate new income elasticities for international trade in 'new economy services' and incorporate these in a simple model of the current accounts. Widespread uptake of 'new economy' services around the world improves the potential for a sustainable US external balance through two channels. First, uptake of new economy services raises global growth. Second, it narrows the asymmetry in income elasticity of US trade. But, reasonable estimates of these two structural improvements are not sufficient to stabilize the US current account deficit.

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The US Current Account, New Economy Services, and Implications for Sustainability

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Institute for International Economics

1. Overview

This paper analyzes the implications for sustainability of the US current account of widespread uptake of 'new economy' services around the world. First, is a discussion of the concepts of sustainability of external balance, which includes the measures of current account as a share of GDP and net capital flows as a share of the change in global wealth. For examination of structural change, an assessment based on real-side metrics such as the CA/GDP ratio, is more appropriate and is used here.

Second, is a consideration of the new economy and services. As economies develop, they consume more services, and regardless of the level of development, services are income-elastic. A number of technological factors, including the Internet, cheaper and more powerful computers, and standardized software programs have made services more tradeable internationally. A more efficient service sector in an economy, coming in part from intensive use of information technology in services and in part from globalization of services, raise productivity and growth.

This collection of factors could have profound implications for US external balance and sustainability. Based on revealed comparative advantage, US service producers are globally

competitive. Therefore, deeper integration of new economy services into economies around the world could engender an upward structural change in the income elasticity of US trade as well as promote more rapid global growth. Are these changes sufficient to improve the US current account?

2. Defining and Benchmarking Sustainability of the Current Account

A sustainable external balance can be defined and examined several ways. Most commonly, external sustainability is judged against a country's own metrics. These include current account (CA) as a share of GDP, net international investment position (NIIP) as a share of GDP, or net service payments as a share of GDP. An alternative is to define and examine sustainability based on a global finance metric, considering net capital inflows as compared to the change in global portfolio of wealth (Mann, 2002).

Of course, the two concepts of sustainability are linked. From the standpoint of the US economy, sustainability is about how much the US economy can afford to borrow from the rest of the world by running a current account deficit and building up a negative net international investment position on which it must ultimately make good. Sustainability from the standpoint of the rest of the world is about how much those investors are willing to buy and hold US assets in their portfolios, considering issues of risk, return, and diversification.

In either concept, a sustainable situation is one where the stock or flow imbalance generates no economic force *of its own* to change its trajectory. For example, a sustainable current account trajectory is one where the feedback effects from the current account or net international investment position through net service payments to consumption or business

investment spending are relatively weak in comparison to other macroeconomic forces that affect these spending categories. A sustainable global portfolio allocation is one where the feedback effects from global wealth allocation to the dollar is relatively weak in comparison to other macroeconomic forces that affect asset prices and portfolio choices.

For near-term analysis, particularly for pressures on a currency, the definition of sustainability based of financial markets, portfolio allocation decisions, and the like makes sense (Mann, 2003). However, for examination of longer-term structural change, such as that presumed by the transition to the new economy and to services, the real side assessment based on the current account is more appropriate. Consequently, we focus on measuring sustainability through the traditional metrics as CA/GDP, NIIP/GDP, and net service payments.

The US current account deficit in 2002 was about $ 500 billion, larger than ever before, and at 4.8 percent of GDP nearly the highest share ever. For industrial countries, a CA/GDP ratio of somewhere between 4 and 5 percent appears to be associated with the onset of economic forces (including a monetary policy response, a reduction in income and, in some cases, a real depreciation of the currency) that narrow the current account deficit. (Chinn and Prasad, 2000; Freund, 2000; Mann, 1999). Similarly, econometric analysis finds that a large negative net international investment position is associated with a depreciation of the relevant exchange rate, although the magnitude of net international investment that is associated with the exchange rate change is less clear (Gagnon, 1996). For many OECD countries NIIP/GDP is 40 to 50 percent without appearing to generate downward pressure on their exchange rates. The figure for the US in 2002 was about 25 percent. Moreover, net financing on the NIIP remains very small. In fact, although the NIIP has been negative since 1986, the net service only turned from receipt to payment in 2002. Comparing the US to industrial-country benchmarks, by at least two of the

three measures, the US current account was not unsustainable in 2002, even though the deficit was very large.

Going forward, the key for sustainability is the trajectory for the US current account. Given assumptions for US and global growth and other key assumptions, will the trajectory show a narrowing of the deficit or continued widening? Continued widening implies that at some point, the sustainability benchmarks will be breeched.

The simulation analysis in the following sections considers two scenarios for the US current account. One is based on forecasts for global growth for the next 10 years assuming little structural change. The second considers the consequences for global growth and for US trade structure of deeper integration of services in global economies, and increased international trade in services. Sustainability of the US current account under these two scenarios will be judged against the empirical record for the US and for other industrial countries.

3. New Economy, Productivity, and International Tradeability of Services

The 'new economy' has come to mean many different things, but at the core of most definitions are technology and productivity growth. In the context of this paper on the sustainability of the US current account, the relationship between technology, productivity, and services has two dimensions: domestic productivity and growth, and international tradeability of services. A number of technological factors, including the Internet, cheaper and more powerful computers, and standardized software programs have enabled services to play a bigger role in raising domestic productivity growth and have allowed services to become internationally traded.

On the domestic side, US service producers that use information technology intensively have higher productivity growth than those that do not (Triplett and Bosworth, 2002; van Ark, Inklaar, McGuckin, Timmer, 2003), which has contributed to the sustained higher rate of productivity growth in the US. Comparing US and European service producers, US services have achieved greater increases in productivity growth through investment in information technology whereas European producers have lagged (Van Ark, Inklaar, and McGuckin (2002). Moving beyond services to the overall economy, Peneder, Kaniovski, and Dachs (2001) and Peneder (2002) show that manufacturing competitiveness is enhanced by intensive use of knowledge-based services. Thus, technology-intensive (or knowledge-based) services go hand-in-hand with higher GDP growth.

This argument has a global complement. Consistent with the stages of development theory, as a country moves from agriculture through manufacturing to services. So, as shown in Table 1, services as a share of GDP rises along with GDP per capita. Generally speaking, the share of US services exports in total US export moves with the share of services in GDP. Thus, the development process should augment consumption of both domestic and traded services. Since about 50 percent of US trade is with developing economies, the pace at which they integrate new economy services matters for their growth and for US current account sustainability.

INSERT here: Table 1.Services, US services exports and income

Technology and the international tradeability of services is a second dimension. 'New economy' (or knowledge-based or IT-enabled) services are taken to mean, broadly, those services beyond the traditional notion of internationally traded services such as transportation, travel, and tourism. Here-to-fore these professional services were usually considered non-traded

or required foreign direct investment or physical presence for delivery abroad – Architects, engineers, and consultants needed to cross the border to deliver their services; Financial intermediaries needed to set up branches to serve their clients; Lawyers and doctors stayed in their local licensing jurisdiction; Green visors illuminated paperwork in the back-offices of enterprises; Customer care meant bagging groceries.

Information technology has radically changed this picture, and US producers are at the forefront of these changes, being both globally competitive (as evidenced by revealed comparative advantage) and having already incorporated technology to great affect in their operations (as documented by McKinsey Global Institute and analyzed in Triplett and Bosworth; and van Ark, Inklaar, McGuckin, Timmer).

In sum, more widespread international trade in services, and deeper integration of new economy services into economies around the world can raise their productivity growth and hence raise global growth. What is the impact of these prospective changes on the sustainability of the US current account?

4. New Economy Services and International Trade Elasticities: The US Example

An empirical assessment of how new economy services might affect sustainability starts with the work-horse of the empirical trade literature: the income and relative prices model of trade flows (Marquez and Ericsson, 1993). As is well known, an empirical regularity emerges from estimating these equations. The US income elasticity for imports is significantly greater than the foreign income elasticity for US exports (familiarly known as the Houthakker-Magee 'H-M' asymmetry for the authors who first documented this regularity. Mann (1999) documents

additional research on the topic). The H-M asymmetry has well-known consequences for the sustainability of the current account. If the US economy and the rest of the world grow at the same rate, then the US current account deficit will continue to widen, unless the exchange value of the dollar persistently depreciates (Krugman, 1985; Marris, 1985; Krugman and Baldwin, 1987; Obstfeld and Rogoff, 2000).

The question for this section of the paper is whether estimation of and systematic incorporation of services in the income elasticities will change the asymmetry. First, we estimate the income elasticity of trade in 'new economy' services. Then we use these estimates in combination with estimates by other researchers of other components of US trade to build-up new income elasticities for US exports and imports. The rationale for building-up income elasticities from components of trade, rather than estimate a single elasticity is that the structural changes that are taking place with trade in new economy services may not be captured by time series estimation on long time periods and the aggregate trade data.

The US services sector is an amalgam of several different categories. Some trade probably is not driven by the economic fundamentals of income and relative prices characteristic of the work-horse model (e.g., military transactions, miscellaneous services' transactions by the US government, and royalties and license fees).[1] Other sub-sectors include the traditional internationally traded services (travel, passenger fares, and transportation), which can be modeled using the income and relative price framework (Stern et al., 2001). The final category of 'other private services' (OPS) is of particular interest for further economic analysis because it is the best match for the concept of new economy services, and also because the category is increasingly important in US trade.

In 2002, US total exports stood at $ 1.015 trillion split roughly 70-30 between goods and services, whereas the US imported a total of $ 1.192 trillion and $ 246 billion of goods and services respectively. Of total services, OPS accounted for just $ 116 billion in exports and $ 78.5 billion of imports. But growth in value since 1990 was 300 percent and 350 percent respectively.[2] Moreover, OPS accounts for an increasing share of international trade in services, and an increasing share of the surplus in international trade in services.

Figure 1 shows the increasing importance of OPS to the US services trade surplus. The balance in traditional internationally traded services (transportation, travel, passenger fares) is highly cyclical and swings into deficit at the end of the 1990s as terrorism, disease, and generally slow growth abroad weighed on exports of these services. Yet, OPS maintain a significant surplus. Even as relative income growth in the US and abroad has tended to favor imports rather than exports of merchandise trade and other sub-categories of services, for both OPS exports and imports, trade has continued to rise throughout the economic cycle.[3] This is consistent with the technological change that is fostering international trade in services, as well as the income-elastic characteristic of services. As a consequence, the trade surplus in OPS was $ 38 billion in 2002, just a bit lower than in 2001 and accounted for the bulk of the overall trade surplus in services.[4]

INSERT here: Figure 1. US services trade balance components 1990-2002

Not only are other private services a persistently positive contributor to the US trade balance, a regional decomposition of the sector reveals that the US maintains a surplus with all regions of the world. Both observations support the notion of strong US comparative advantage in this sector. As shown in Table 2, Europe is the main trading partner in OPS, while some differences in US export markets and origins of imports outside Europe exist.

INSERT here: Table 2. Geographic decomposition of US trade in other private services

Estimating the income elasticity of OPS trade faces a number of challenges. Because the length of the time series of observations on OPS as an aggregate is limited, we employ a time series panel, pooling across sub-categories within OPS and employing regional variation in dependent variables, and region fixed effects.

The time series dimension is:

- Annual frequency from 1986 to 2001 for exports and imports for the following categories and regions.[5]

The category dimension of the panel is:

- Unaffiliated[6] Other Private Services, from which the categories *Insurance, telecommunications* and *Other Unaffiliated Services* has been subtracted. These three categories experience large fluctuations dictated by events and rules unaffected by the economic variables of income and relative prices or other economic developments.[7]
- Unaffiliated Business, Professional and Technical Services.
- Unaffiliated IT Services, which consists of categories *computer and data processing services* and *database and other information services* (columns two and three) from Business, Professional and Technical Services data.

The geographic dimension of the panel consists of five categories constructed to maximize intra-regional variation while minimizing the problem of data suppression:

- Canada
- Japan

- Europe, which where required is defined as Austria, Belgium, Germany, Netherlands, Luxembourg, Spain, Portugal, France, Italy, Greece, Denmark, Norway, Sweden, Finland, UK, Ireland and Switzerland
- Latin America, which where required is defined as Brazil, Argentina, Mexico, Chile and Venezuela.
- Rest of the World, which where required is defined as Australia, China, Hong Kong, India, Indonesia, Israel, South Korea, Malaysia, New Zealand, Philippines, Saudi Arabia, Singapore, Taiwan[8] and Thailand

All regressions are OLS of the form:

$$Y_i = \beta_{Incomei} + \beta_{\mathrm{Re}\,lative\,\mathrm{Pr}\,icei} + \alpha_1 D_{Canadai} + \alpha_2 D_{Europei} + \alpha_3 D_{LatinAmericai} + \alpha_4 D_{Japani} + \alpha_5 D_{\mathrm{Re}\,stoftheWorldi} + \mu_i$$

Regressions on Import Data:

Y_i = Ln(category US payments, deflated by the US GDP deflator)
$\beta_{Incomei}$ = Ln(Real US GDP)
$\beta_{Relative}$ Pricei = Ln(Average annual exchange rates of country$_j$ in US$[9] times the ratio of country$_j$ annual CPI[10] and the annual US Services Chain Type Price Index[11],[12])
$\alpha_i D_{j,i}$ = Dummy variables for each geographic area in the panel; 1 if panel, 0 otherwise

Regressions on Export Data:

Y_i = Ln(category US receipts, deflated by the US GDP deflator)

For each category a separate foreign income variable is calculated, so that

$\beta_{Incomej,i}$ = Ln(Total real GDP of geographic panel, weighted according to the two-year moving average (preceding year + year in question) trade-weight in total US exports of the geographic panel in the particular category *j*)

$\beta_{Relative}$ Pricei,j = Ln((Average annual exchange rate for Country$_j$ in $US[13] times the US Services Export Chain Type Price Index[14]) divided by the annual CPI for country$_j$[15],[16])
$\alpha_i D_{i,j}$ = Dummy variables for each geographic area in the panel; 1 if panel, 0 otherwise

Income elasticities reported in Table 3 are statistically significant at a 99% level. Unreported relative price elasticities for export regressions are not statistically significant at this level, and only in the case of Other Private Services and Business, Professional and Technical Services do the relative prices have the expected negative sign. Unreported relative price elasticities for import regressions were statistically significant at a 99% level, and were negative as expected.

Combining these newly estimated elasticities with those for travel and transportation estimated by Stern et al. and goods estimated by Wren-Lewis and Driver, and weighting each element by its share in nominal total exports and imports yields the income elasticities for total trade (Table 3).

Several observations on the 'Houthakker-Magee' asymmetry emerge from the Table. First, the asymmetry is just as pronounced for goods in the Wren-Lewis and Driver estimation over the more recent period (quarterly data 1980-1995) as it was over the H-M period (annual data 1951-1966). Second, for the traditionally internationally traded services the asymmetry is reversed, with the export income elasticity exceeding the import income elasticity. Finally, for OPS the two income elasticities are about the same and both above 2.0 (income elastic). Overall, when weighted up, the H-M asymmetry still is present, but it is smaller than in the case of goods trade alone.

INSERT here: Table 3. Constructing income elasticity estimates

5. New Economy Services and Current Account Sustainability

The two preceding sections give two channels through which new economy services can potentially affect the US current account: First, increased trade in new economy services has apparently improved the income-elasticity asymmetry. Second, going forward, domestic integration of new economy services can raise productivity and growth in the rest of the world as they already have in the United States. Further integration of new economy services in the rest of the world may well occur in conjunction with a further increase in international trade in services, so that the two factors would build on each other to impact the trajectory of the US current account. Nevertheless, in the context of a simple model of the US current account, it is useful to examine the sensitivity of the current account trajectory to the various components as shown in Figure 2. (The very simple accounting model of the US current account is presented and discussed in Mann, 1999.)

Key inputs are the assumptions for global growth and the income elasticities (Table 4). The specific values for income growth in the base case are drawn from the well-known econometric forecasting firm of Macroeconomic Advisors. The higher income growth scenario is the 'high-growth' scenario from the OECD's World in 2020. This scenario assumes a set of structural changes in economies (both OECD and developing countries) that are consistent with deeper integration of new economy services in global economies, including fiscal rectitude, labor market reforms, reductions in trade and transport costs, and moderate oil prices.

Figure 2 traces out three main scenarios: Base case growth and H-M elasticities; base case growth and new estimated and constructed income elasticities; and higher growth along with the new elasticities.

In the base case with the H-M elasticities, even though the long-term growth of the US economy is lower than that for the rest of the world, the H-M asymmetry yields the familiar widening of the current account deficit. The magnitude of the CA/GDP ratio gets very large quickly, and sustainability benchmarks are breeched very quickly.

The second scenario, where base case growth is assumed, but the new elasticities are employed is almost identical to the first – it is nearly impossible to separate the two lines! What this implies is that the change in elasticities implied by our new estimates, which account for the dramatic increase in the share of new economy services in US international trade over the last decade, in fact does very little to improve the current account trajectory.

The third scenario assumes the higher growth path that comes from deeper integration of new economy services into the economies of the US's trading partners and also incorporates the new estimated income elasticities for trade. Also shown by a light line is the intermediate scenario where only the growth assumptions are changed, but the old H-M elasticities are employed. This scenario is implausible, since it is unlikely that growth abroad will increase without an accompanying increase in services production and trade.

The synergies between growth, trade, and services is revealed by the fact that the overall improvements to the current account trajectory from both growth and trade is greater than the either deeper integration of services in domestic economies or a greater share of services in US international trade. Without the increase in foreign growth, greater international trade in services

does virtually nothing to improve the US current account. But, without the increase in services in domestic economies and through international trade, higher growth is unlikely to occur.

All told, structural increases in growth, both in the US and abroad help to slow the widening of the current account. The relatively smaller income asymmetry in conjunction with higher growth slows the widening deficit even further. However, neither higher growth nor the less unfavorable income elasticities are sufficient to put the US current account on a stable trajectory (that is, one that does not continue to widen).[17] This suggests that the 'new economy' and increased international tradeability of services are not enough to put the US current account on a sustainable path.

INSERT here: Figure 2. Scenarios for the US current account

INSERT here: Table 4. Assumptions for US current account deficit scenarios
Structural Increase in Growth and New Estimated Elasticities

6. Policy Issues: Services in Europe and in the World Trade Organization

The scenario analysis suggests that structural change inside economies and increased trade in services will not be enough to put the US current account on a sustainable path, and that the change that has already been estimated to have taken place in income elasticities of trade, by itself, does almost nothing to change the trajectory. Since growth is the key, what are some policy approaches to promote deeper integration of services so as to support the increase in

global growth so necessary for the US current account trajectory to improve even to some degree?"

With Europe, the US already has substantial international trade in services, so a key issue for Europe is growth. The European Union's Lisbon strategy aims to make the European economy the most competitive in the world by 2010. Key to this goal must be the 70 percent of the EU economy that is services. However, the European Commission's annual evaluations of the success of the Internal Market in the EU show that the continued presence (now ten years after launch) of significant barriers to trade in services such as consulting, real estate, engineering, finance, construction, distribution and transport. Intra-EU trade in services has also been disappointing, reaching only about 5 percent of sector GDP in 2002, as opposed to in the goods sector in which trade reached roughly 30 percent in 2002.[18] As a result, there has been limited price convergence in services between EU countries, and large growth opportunities have been forfeited. For example, Commission research indicates potential gains of up to 1.1 percent of EU GDP from European integration in financial services alone in the ten years until 2012.

In May 2003, the European Commission hence strengthened the emphasis on the services sector in its 2003-06 Internal Market strategy, with proposals for service sector integration based on mutual recognition, legislative harmonization and EU-level codes of conduct. Gains to growth in Europe derived from increased services integration would rebound to benefit the US current account since the higher growth would occur in tandem with the higher income elasticities of trade.

Beyond Europe is the broader agenda of liberalization in the World Trade Organization. Several researchers have focused on the potential gains from on-going negotiations in the WTO (Dee and Haslow, 2001; Brown, Deardorf, and Stern, 2001; Hertel, 2000; Table 5).

The research shows that global welfare rises more through deeper global integration of services than from opening global markets for agriculture and manufactures. The research indicates that the industrial countries gain the most from services liberalization, with the US enjoying the greatest gains. These results should not surprise. First, barriers in services markets are generally more extensive than barriers in agriculture and manufactures markets. So, reducing barriers by one-third (which is the research scenario) implies a greater improvement in the markets for services than for the other two categories. Second, industrial economies have more robust services sectors, so generally would export more services if barriers were lower, and this is particularly true for the US.

What about for the developing countries, whose services sectors are not particularly large and who do not export many services? For the developing countries, welfare gains from improving the performance of the services sector are about the same size as obtained through increased exports of agriculture and manufactured goods. Given the generally small size of the domestic service sector in most developing economies, this means that the multiplier effects to raise GDP must be much larger from increased use of services than from increased exports of agriculture of manufactures. In other words, the productivity gains throughout an economy from improved service sector performance are particularly dramatic for developing countries.

7. Conclusion

New economy services are of increasing importance in international trade. These services play an important role in raising productivity and growth in economies around the world. Europe has much to gain from further integration of services within the European Union. Developing economies would experience dramatic improvements in their GDP from increased use of services.

Examination of international trade in services for the United States indicates that trade in these services is increasing and that the trade surplus in these services continues to be robust even in the face of slow growth abroad. New estimates of the income elasticity of trade in these services for the US confirm that these services are income elastic. These estimates also suggest that the familiar asymmetry in income elasticity that favors imports over exports is significantly muted for these services.

These two factors: higher growth from increased integration of services in the domestic economy and more favorable income elasticities of trade work to reduce the magnitude of the US current account deficit in scenarios for the trajectory for the US current account. However, plausible estimates for the effect on growth and for the effect on elasticities are not sufficient to put the US current account on a sustainable path. Additional upward adjustments to global growth, a much higher share of services in US trade, or a depreciation of the exchange value of the dollar are necessary to put the US current account on a sustainable path.

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Endnotes

[1] According to the definitions in the Bureau of Economic Analysis, which compiles the data, the US services trade consist of the following seven categories: **Military Transactions** covers non-commercial transactions involving US government military agencies' participation. **Travel** covers purchases of goods and services by US travelers abroad and by foreign travelers to the US. **Passenger Fares** covers international transactions in fares paid by residents of one country to carriers resident in other countries. **Transportation** covers US international transactions arising from the transportation of goods by ocean, air, waterway, rail and pipeline carriers to and from the US. **Royalties and License Fees** covers transactions with foreign residents involving intangible assets and proprietary rights. **Other Private Services** covers transactions with foreign residents in services not specifically covered in sub-categories 1-5. **US Government Miscellaneous Services** covers transactions of US government non-military agencies with foreign residents

[2] Data on services in the US international trade accounts began to be collected systematically starting in 1986, with a significant ongoing improvement in data collection methodology in the years since. The majority of the data material is gathered through the BEA's own surveys, but data from other US government agencies, foreign countries, international organizations and private and other entities are also utilized. For additional detail on BEA services sector data methodology see Survey of Current Business, July 2002, http://www.bea.doc.gov/bea/ARTICLES/2002/07July/0702%20ITARevEst.pdf and earlier annual issues.

[3] The rapid $ 24 billion increase in import of other private services from 2001 to 2002 comes from increased imports from Western Europe ($ 14.4 billion) and Latin America ($ 9.2 billion), and does not appear to be the leading edge of the anecdotal flood of outsourced services from India.

[4] Royalties and license fees are another important positive contributor to the overall services surplus. Of note, the US royalties and license fees surplus emanating from services sector categories represented 46 percent of the total US trade surplus in royalties and license fees in 2001, up from 24 percent in 1990. Correspondingly, the US royalties and license fees surplus emanating from the manufacturing sectors declined from 73 percent of 1990 to 48 percent in 2001. This indicates another reason why OPS, which includes nearly all service sector categories in question, play an increasingly important role in the US economy. Data, see detailed historical estimates of the US Balance of Payments, available at http://www.bea.doc.gov/bea/di/di1fdibal.htm

[5] All data from the Department of Commerce/BEA US International Services Cross-border Trade. Available at http://www.bea.doc.gov/bea/di/1001serv/intlserv.htm

[6] BEA reporting of OPS trade data distinguishes between intra-company affiliated trade and arms-length unaffiliated trade. However, due to concerns over undue respondent burden, different surveys are used for each type of transactions. This means that no decomposition of affiliated OPS trade is publicly available, with the exception of special BEA publications, such as the Digital Economy 2002, which included data for affiliated trade in IT services. Moreover, as a result this estimation can only be carried out on unaffiliated trade data. While the data thus represents only a part of total US trade in OPS – in 2001 52% of US imports and 34% of US exports were affiliated in nature – they will likely be more robust, as variation from intra-company idiosyncrasies in transactions are eliminated.

[7] Insurance consists, despite being listed under unaffiliated services, of both affiliated and unaffiliated transactions. Receipts in this category are calculated by the BEA as premiums received from foreigners for primary insurance and reinsurance less claims by US insurers. Payments are calculated as premiums paid to foreigners for primary insurance and reinsurance less losses recovered from foreign insurers. Exports (receipts) of other unaffiliated services are mainly film and tape rentals and expenditures of foreign governments and international organizations in the US, while imports include mainly expenditures of US residents temporarily working abroad and film and tape rentals. Cross-border trade in telecommunications data are essentially a product of the accounting rate system fashioned by European carriers in the latter half of the nineteenth century. Under this system, telecommunication carriers bilaterally negotiate fees, called accounting rates, for carrying international traffic, measured in calling minutes. Each carrier's portion of the accounting rate is referred to as the settlement rate, which in almost all cases is equal to one-half of the negotiated accounting rate. As bilateral imbalances in international calling traffic occur, the carrier whose outbound calling minutes exceed its inbound calling minutes makes a net settlement payment to its foreign counterpart. The net settlement payment is essentially calculated by multiplying the settlement rate by the number of imbalanced calling minutes. Net settlement payments are recorded as imports in the balance of payments, whereas net settlement receipts are recorded as exports. The US posts a persistent trade deficit in

telecommunications, due to the large number of international calls that originate in the US. Definitions cited from SCB October 2002, p. 77 and 85; Recent Trends in US Services Trade, USITC Annual Report 2001, p. 18-1.

[8] All Taiwan data reconstructed using data from the Central Bank of Taiwan at http://www.cbc.gov.tw/EngHome/eeconomic/statistics/Annual.htm or the Taiwan National Statistical Agency at www.stat.gov.tw/

[9] Available from the IMF IFS Database, converted from SDR market rates, indexed to 1995=100.

[10] Indexed to 1995=100, available from the World Bank WDI On-line at http://devdata.worldbank.org/dataonline/

[11] Indexed to 1995=100, available at http://www.bea.gov/bea/dn/nipaweb/NIPATableIndex.htm

[12] Multiple countries comprising a geographic panel weighted in the panel according to their real (1995) $US denominated GDP. GDP data available at http://devdata.worldbank.org/dataonline/

[13] Available from the IMF IFS Database, converted from SDR market rates, indexed to 1995=100.

[14] Indexed to 1995=100, available at http://www.bea.gov/bea/dn/nipaweb/NIPATableIndex.htm

[15] Indexed to 1995=100, available from the World Bank WDI On-line at http://devdata.worldbank.org/dataonline/

[16] Multiple countries comprising a geographic panel weighted in the panel according to their real (1995) $US denominated GDP. GDP data available at http://devdata.worldbank.org/dataonline/

[17] These results show less improvement to the current account trajectory than those presented in Mann 1999, where no new estimation of elasticities was undertaken. There, only the export income elasticity was changed on the basis of a re-weighting of the goods and services elasticities estimated by Wren-Lewis and Driver.

[18] For detailed data, see 2003 Statistical Annex for European Economy, available at http://www.europa.eu.int/comm/economy_finance/publications/european_economy/2003/statannex0103_en.pdf

Table 1: Services, US services exports and income select economies 2001

	Services share of GDP (value added, %)	Private services share of US exports to region/country (%)	Income per capita ($US 1995)
Europe[1]	69	53	26,579
Asia Pacific[3]	44	26	5,446
Latin America[2]	60	22	3,821
China	34	27	878

[1] For Services Share of GDP and Income per Capita, Europe defined as Euro-zone. For US Services Exports Europe Defined as Belgium, France, Germany, Luxembourg, Italy, Netherlands, Norway, Spain, Sweden, Switzerland and UK
[2] For Services Share of GDP and Income per Capita, Latin America defined as per World Bank definition of Latin America and Caribbean. For US Services Exports Latin America defined as Argentina, Brazil, Chile, Mexico and Venezuela
[3] Asia Pacific defined as China, Indonesia, South Korea, Malaysia, Philippines, Taiwan and Thailand. Countries GDP weighted according to $US1995 GDP for aggregate number for services share of GDP and income per capita. Services share of GDP for Thailand 2000 figure, rather than 2001. Service share of GDP for Taiwan by activity, rather than value added.
Source: World Bank WDI On-line; US Department of Commerce/BEA, U.S. International Trade in Goods and Services: Annual Revision for 2001, exhibit 13; U.S. International Services: Cross-Border Trade and Sales Through Affiliates, Summary data for cross-border trade services by area and country, 1986-2001; National Statistical Agency, Taiwan

Table 1. Services, US services exports and income, select economies 2001

Table 2: Geographic decomposition of US trade in other private services, 2001

Geographic region	US exports		US imports		US trade balance	
	$US	% of total	$US	% of total	$US	% of total
Canada	11,658	11	6,481	12	5,177	9
Europe	41,784	38	20,862	38	20,922	38
Latin America and Other Western Hemisphere	19,124	17	15,424	28	3,700	7
Japan	8,837	8	3,732	7	5,105	9
Rest of The World	28,363	26	8,089	15	20,274	37

Source: Department of Commerce, US International Services: Cross-border Trade and Sales through Affiliates 1986-2001. Available at http://www.bea.doc.gov/bea/di/1001serv/intlserv.htm

Table 2: Geographic decomposition of US trade in other private services, 2001

Table 3: Constructing income elasticity estimates

	Exports			Imports		
	Trade weight[1]	**Estimates**	**Weighted estimate**	**Trade weight[1]**	**Estimates**	**Weighted estimate**
Goods	.74	1.21[2]	1.43	.83	2.10[2]	1.99
Services, in which	.26			.17		
- Travel	.35	2.18[3]		.38	1.22[3]	
- Passenger Fares	.09	3.11[3]		.12	2.09[3]	
- Other Transportation	.13	1.11[3]		.28	1.06[3]	
- OPS	.44	2.00[4]		.23	2.12[4]	
Memo: H-M[5]		1.0			1.7	

[1] All weights are calculated as the average weight of the category in US trade from 1976-2000. This time series chosen, as it is the duration of the data used in Stern, Deardorff, Hymans and Xiang. In the case of the internal weights on OPS exports, the end of the period (2000) is used. Significant trending in shares during the period makes the average value for the share over the period significantly bias the calculation.
[2] Wren-Lewis and Driver.
[3] Stern, Deardorff, Hymans and Xiang.
[4] Author's calculation.
[5] Houthtakker and Magee.

Table 3. Constructing income elasticity estimates

Table 4: Assumptions for US current account deficit scenarios

Base case

	2003	2004	2005	2006	2007	2008	2009	2010
US real GDP	2.6	4.1	3.2	2.8	2.6	2.5	2.4	2.7
World real GDP	2.3	3.5	3.3	3.3	3.2	3.1	3.1	3.2

Export Income Elasticity = 1.0

Import Income Elasticity = 1.7

Notes:
Growth: Macro Economic Advisors, Long Term Economic Outlook, March 25, 2003. World inflation macro Economic Advisors 35 country CPI index
Elasticities: Houthakker and Magee.

Structural increase in growth and new estimated elasticities

	2003	2004	2005	2006	2007	2008	2009	2010
US real GDP	2.6	4.1	3.5	3.5	3.5	3.5	3.5	3.5
World real GDP	4.7	5.1	5.1	5.1	5.1	5.1	5.1	5.1

Export Income Elasticity = 1.43

Import Income Elasticity = 1.99

Notes:
[a] 2003, 2004 Macro Economic Advisors, Long Term Economic Outlook, March 25, 2003; 2004-2010 OECD World in 2020, 2004-2010 US inflation from World Bank Global Economic Prospects 2003 2003-2015 Forecast
[b] 2003,2004 Macro Economic Advisors, April 17th 2003; 2004-2010 OECD World in 2020, world inflation the GDP weighted average of inflation from Japan, G-4 Europe, Non-G-7 industrial countries, other high income and low/middle income economies from World Bank Global Economic Prospects 2003 2003-2015 Forecast
Elasticities: Author's calculations

Table 4: Assumptions for US current account deficit scenarios,

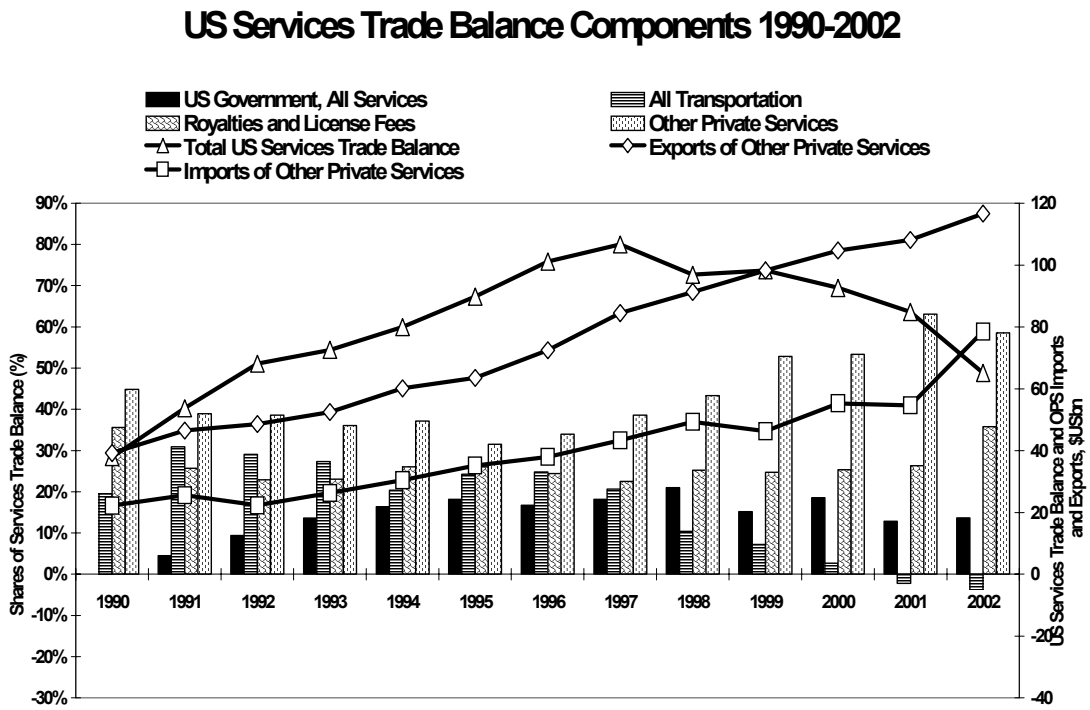
Structural increase in growth and new estimated elasticities

Table 5: Scenarios for liberalization in the WTO
($ billion gain)

	All sectors	Services sectors only
World	613	390
United States	177	150
EU and EFTA	169	103
Other industrial	145	76
Developing world	122	61

Source: Brown, Deardorf, and Stern (2001). Scenario assumes one-third reduction in post-Uruguay Round tariffs on agriculture and manufacturing, and one-third reduction in services barriers.

Table 5. Scenarios for liberalization in the WTO



Source: Department of Commerce, NIPA Table 4.3

Figure 1. US services trade balance components 1990-2002

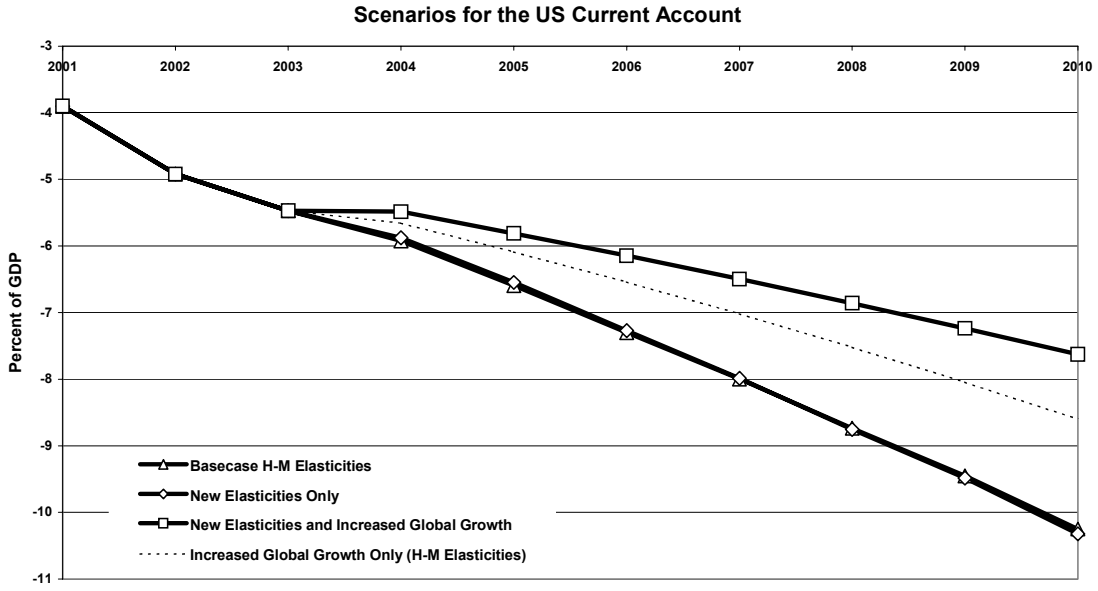


Figure 2. Scenarios for the US Current Account

REVIEW OF INTERNATIONAL ECONOMICS

Reform of European Merger Policy*

Bruce R. Lyons

Abstract: This article highlights the main drivers for merger policy reform in the EU, including the consequences of the recent appeal court reverses. It discusses some of the substantive and procedural issues that the reform package should address, and outlines the reforms in progress. The article concludes that much of the reform package will be beneficial, but some important opportunities have been missed in this inevitably patchwork process. The two most important omissions are the failure to separate Phase I and Phase II investigation teams, and the unnecessarily complex preservation of the dominance test.

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Reform of European Merger Policy

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1. Introduction

The globalization of industry has inevitably drawn attention to comparisons of national (and one supranational) competition agencies. The same firms face different agencies around the world, and increasingly the same merger is appraised by several agencies at once. There is very strong coordination of policy and agencies within Europe, particularly between the European Commission and the EU member states. There is also considerable transatlantic cooperation, but differences remain both in the substantive appraisal of mergers and in merger review procedures.

A recent survey by Global Competition Review rated the USA as having the best set of agencies, followed by the UK and Germany, with the EU's DG Competition (DG Comp) a creditable but 'could do better' fourth best. Of course, such practitioner surveys must be treated cautiously because they are based on the responses of knowledgeable but vested interests. Nevertheless, a closer look at the pressures facing DG Comp, and the long list of current and forthcoming reforms, suggests that the institution appreciates certain weaknesses, and is capable of self-criticism and reform. Are these reforms in the right direction? Are the reforms sufficient to address all the weaknesses in current procedures? Are they sufficient for DG Comp to move up the competition agency league table? And most importantly, will they improve the economic analysis behind its decisions?

In this paper, I provide a very brief sketch of the legislation and institutions of merger policy administered by the European Commission (section 2), and highlight some of the pressures for reform (section 3). These include some very high profile reverses in the appeal court. The next two sections highlight the key issues that might cause problems in merger appraisal, particularly when jurisdictions differ in their approaches. These relate both to substantive issues such the test against which mergers must be appraised (section 4), and procedural and organizational issues such as the publication of merger guidelines and the separation of functions between agencies within each jurisdiction (section 5). Where relevant, I provide a brief comparison between the (pre-reform) EU, US and UK. Following an outline of the numerous reforms that have recently been announced (section 6), I conclude with a brief overall assessment of the state of reform (section 7).

2. European Legislation and Institutions

Merger control at the EU level was only agreed in late 1989 with the European Communities Merger Regulation (ECMR, 1989). It was implemented during the following year. The scope of the ECMR picks up any merger with a 'Community dimension'.[1] This is defined sufficiently broadly to include most large scale mergers of firms making significant sales in at least two Member States. Note that this includes mergers between firms that produce entirely outside Europe, but which sell into Europe (e.g. primary producers). There are powers to refer a merger back to a Member State for review if that is thought appropriate.

A point of major interest is the test by which mergers are appraised. Article 2(3) of the ECMR states: 'A concentration [i.e. merger or acquisition] which creates or strengthens a dominant position as a result of which effective competition would be

significantly impeded in the common market or in a substantial part of it shall be declared incompatible with the common market'. This is commonly referred to as the Dominance Test (DT).[2]

In section 4.1, I compare the unmodified DT with the USA legislation, which prohibits any acquisition, the effect of which 'may be substantially to lessen competition, or to tend to create a monopoly' (Clayton Act #7, 1914). The US test is referred to as the SLC test, which is currently interpreted as 'whether the merger is likely to create or enhance market power or to facilitate its exercise' (US Merger Guidelines, 1997). The European test clearly has a much shorter history than the US, but it is derived from a longer tradition in Germany and also echoes the wording of Article 82 of the Treaty of Rome (1957), which prohibits the abuse of an existing dominant position.

A second, and unique, difference between the objectives in the EU and the USA is that, in all matters of competition, the Commission is concerned with market integration. Even post introduction of the Euro, this is still very much less advanced in Europe than in the USA, and it remains an overarching objective. However, this impinges much less on mergers than on other aspects of competition policy, most notably policy towards parallel imports and the control of state aids.

Turning to institutions, DG Comp is the agency charged with enforcing all aspects of EU competition policy (including state aids). A separate department within DG Comp, called the Merger Task Force (MTF), was established at the outset of the ECMR, and this was charged with all merger investigations. It soon established a reputation as an elite group within DG Comp.[3]

Each Directorate General (DG) in the European Commission is headed by a politically appointed Commissioner (Mario Monti currently heads DG Comp), but all

other appointments are non-political career civil servants. Merger review in the MTF is in two phases. Phase I must be completed within a month, rising to six weeks if a Member State intervenes or if the parties offer a remedy at this stage. If the merger raises serious doubts, Phase II proceedings are initiated and a further four months are allowed for a final decision. This very precise set of administrative deadlines differs from the more elastic US system.[4] Formally, DG Comp makes a recommendation to the full set of 20 European Commissioners (most of whom have no expertise in competition matters) who decide whether or not to accept the recommendation.

The parties to a merger can appeal to the Court of First Instance (CFI). A further appeal, limited to legal questions, may also be possible to the European Court of Justice (ECJ). Both are traditionally lengthy processes, and business realities mean that it is extremely difficult to resurrect a negative merger prohibition that has been overthrown on appeal. Thus, the European merger procedure is very much more distant from the courts than is the US procedure, where the courts cast a continual shadow on the FTC or DoJ, even when the parties settle out of court. Both sides in the US system must continuously ask themselves: 'how would the courts interpret the evidence we are providing to support our arguments?'. In contrast to the USA, the court in Europe does not attempt fact finding. The question it asks is one of judicial review, so DG Comp must continuously ask itself: 'would the court find that we have failed to adopt the correct procedure in collecting evidence, and have we been sufficiently diligent in trying to interpret it?'.

This very brief comparison of objectives and institutions is highly stylized. Its purpose is to provide some essential background for the discussion of reform. It is not intended to be in any way comprehensive or delicately nuanced.

3. Drivers for Change

Numerous changes in European merger control are being implemented around the time of writing (2003). A 'clarification' has been proposed for the dominance test against which all mergers must be appraised. Devil's advocate panels are providing an internal critique of the arguments provided by case teams. A new post of Chief Economist has been created and filled by an academic economist. For the first time, there is a published set of draft merger guidelines which explain the circumstances in which a merger might be expected to result in competitive harm. There is an extended timetable to allow more time to develop remedies that are appropriate to the expected competitive harm. And the Merger Task Force (MTF), previously a separate unit in DG Comp that undertook all merger inquiries, is being dismembered and folded into other, mainly sectoral units. What has prompted all these changes at this moment in time?

Successful Appeals to the Court of First Instance against Commission Decisions

One explanation, advanced by some of the press, is that reform has been a panic response to a series of high profile reverses in the European Court of First Instance (CFI). These successful appeals against three merger prohibitions in quick succession have certainly been a substantial shock to DG Comp. Until this five month period during 2002, the MTF had survived nearly all such challenges.[5] While the timing appears to fit nicely with the panic theory, this view is substantially false. The reform train had been motoring long before any of these cases, and a Green Paper (i.e. a formal consultation document) on Merger Reform had been published in December 2001. Nevertheless, it is probably true to say that the CFI reverses have been influential in affecting much of the detail. It would go beyond the purpose of this

paper to provide full details of each case, but the main problems identified by the three successful appeals are:

- *Airtours/First Choice*: DG Comp did not conduct a sufficiently rigorous economic analysis of the incentives for and ability to coordinate behavior as a direct consequence of the proposed merger, which they prohibited on the basis of coordinated effects.[6]

- *Schneider/Legrand*: DG Comp failed to take account of the different degrees of competition in each of the national markets it identified, and did not provide Schneider with enough information to offer an appropriate remedy.[7]

- *Tetra Lavel/Sidel*: DG Comp should have: a) taken account of the fact that its concern over leveraging market power between two otherwise separate markets would have required tactics that are illegal under Article 82; b) provided a proper appraisal of behavioral commitments before resorting to its favorite structural remedy (divestiture); and c) adopted a higher standard of proof.

Whereas Airtours/First Choice and Schneider/Legrand were accepted by DG Comp as bearing mainly on the particular case in question, without necessarily creating a major precedent,[8] the result of the Tetra Lavel/Sidel was different. Each of the Court's findings in Tetra could be incredibly damaging to effective merger control, and DG Comp immediately appealed to the European Court of Justice. It is, however, unfortunate that this important test case is based on the highly contested economics of leverage.

Although I have argued that reform was already under way before these appeals, this does not mean that they have not had an important effect on the conduct of merger investigations. A brief statistical analysis is suggestive, care must be taken in

interpretation, especially as the volume of merger activity varies from year to year. Also, mergers whose harmful effects cannot be remedied by divestiture or some other undertaking are relatively unusual, so short period averages can be misleading. Nevertheless, the statistics are consistent with a chilling effect of the successful appeals on the propensity to prohibit mergers. In the first full decade of merger activity (1991-2000), there were 13 prohibitions out of 1,498 decisions (i.e. a prohibition rate of 0.87%).[9] In 2001, there were five prohibitions, including GE/Honeywell, Schneider/Legrand and Tetra-Lavel/Sidel, out of 340 decisions (i.e. a prohibition rate of 1.47%). The three successful appeals mentioned above were announced by the CFI between June and October 2002. The Commission adopted no prohibitions during 2002 or in 2003 (at least up to the time of writing at the end of August), during which period there were 430 decisions.

Beyond any immediate impact on the self-confidence of DG Comp, it is clear that the appeals raise a range of concerns, including inadequate economic analysis and procedural weaknesses. DG Comp has appealed to the higher court in only one case, thereby indicating an acceptance of much of the implied criticism.[10] The CFI judgments have given impetus to the reform process which was already in place following the Green Paper. As a result, the reforms have been hastened and sharpened, but this does not make the appeals into the main drivers for reform. There were three longer term forces that had been pushing hard for some time: maturity in merger regulation; increasing use of economic analysis; and expanding membership of the EU.[11]

Mature Reflection

Enormous experience had been derived during the first decade of the MTF. Inevitably, lessons had been learned and it would be surprising if change was not necessary. As it happens, many of the lessons had been positive, about best practice that could be applied elsewhere. The MTF quickly gained the reputation as an elite unit within DG Comp, especially in comparison with the slow administrative approach in sectoral units applying antitrust Articles 81 and 82 or in the state aids units. There is virtue in spreading good practice, and also in integrating the economic approach to competition throughout all branches of competition policy. Other aspects of reform, such as the merger guidelines, follow from over a decade's experience. Prior to facing a wide range of cases and problems, it would have been hard to write anything meaningfully directed at the EU's particular legal, administrative and economic circumstances.[12]

Increasing Use of Economic Analysis

Economic analysis is used increasingly to inform competition decisions across the globe. All agencies must think hard about how to rise to the challenge of integrating top class economic analysis more centrally into merger appraisal. It is an entirely positive motive for institutional reform to address this very desirable global trend. From this perspective, the appointment of a Chief Economist is long overdue.

Ten New Member States from May 2004

This is the motive for many of the changes being mooted for EU institutions, from the ECB Governing Council to a European Constitution. It is also a concern for DG

Comp, because a large increase in case load is expected. Much of this might relate to state aids, but there will also be merger and antitrust concerns in national geographic markets until the typically small new members on the perimeter of the EU become more economically integrated. DG Comp needs more efficient procedures to deal with this. It is also sensible for reforms to be in place prior to the administrative effort necessary to integrate the new members into the routines of the European Commission.

4. Substantive Issues in Merger Policy Reform

This section highlights two substantive issues that link the law and economics of merger policy. Should the EU abandon the DT in favor of something closer to the SLC test? And how should efficiencies be treated in merger appraisal? I briefly raise a third topic that has not yet entered the economics debate, but which can be important in practical cases. How should appraisal proceed in the face of ignorance about a potential economic mechanism?

4.1 Why the SLC (or SIEC) Test is Better Than the Dominance Test

I have already noted the difference between the EU and US tests against which mergers must be appraised. The ECMR states that a merger should be prohibited if it:

> a) creates or enhances a dominant position; … *as a result of which there is*
>
> b) a significant impediment to effective competition (SIEC).[13]

This is known as the Dominance Test (DT). The problem is that this test can lead to both type I and type II errors. First, it can be too harsh on merging parties because an efficiency enhancing merger might be wrongly prohibited. This can arise

if it harms rivals and so 'creates' a dominant position. Of course, a proper application of b) should not result in prohibition if overall competition is not impeded, and very recently Commissioner Monti has declared that efficiency enhancing mergers should not be caught by the DT.[14] Nevertheless, there is still a strong suspicion that dominance *per se* matters. This encourages a wasteful and costly line of lobbying by rivals, and it encourages investigators in DG Comp to focus unduly on a) when b) is what matters.

Second, the DT can be too generous on merging parties by allowing anti-competitive mergers. This is because a) creates an essential hurdle before the investigation can get to b). It puts enormous stress on market definition and market share at the expense of a sometimes more appropriate direct attempt to measure the impact on competition. For example, pockets of market power in a differentiated product market may escape, especially if a wider market definition has been previously applied to another merger between less related products in the industry. Alternatively, if one firm already has 51% of the market, it is difficult to say that a merger of any other firms in the industry, even the only two others, will create unilateral dominance. This is especially so because the word 'dominance' echoes the terminology of Article 82, which applies to the abuse of dominance by an existing firm or firms. A third example is where a merger results in three equal sized firms, which might result in coordinated effects ('tacit collusion').

This last has received more attention because the doctrine of 'collective dominance' has advanced in recent European case law. It is now accepted that dominance need not be by a single firm, but it can be attained by two or more firms together, not necessarily acting in explicit collusion. However, the recent Airtours appeal appears to equate collective dominance with a specific model of tacit collusion

(i.e. the textbook repeated game model with a transparent punishment strategy). While this model is currently widely accepted to be crucial to understanding the economics of tacit collusion, it cannot be expected to cover all possible instances where market power can be created or strengthened in the absence of single firm dominance. In particular, one reading of the successful appeal is that it excludes a unilateral effects application of collective dominance. Although this interpretation remains untested in the ECJ, in view of the recent court setbacks for DG Comp, it is unlikely that they will risk a controversial case on this issue in the near future.[15]

Once again, it is part a) of the DT that causes the problem. It is an unnecessary appendage that just gets in the way of the machinery, and would best be amputated. This would leave a SIEC test, which would prohibit a merger if it was a 'significant impediment to effective competition'. This has the considerable advantage of building on the current system and case law, without adding to the uncertainty of changing the wording to SLC (which in any case was a 1914 compromise between the US Senate and House of Representatives). In fact, I find the SIEC wording slightly more helpful than SLC, but that is very secondary. The most important point is that there is already a strong consensus as to what merger regulation should seek to achieve, and the precise wording of SIEC or SLC are consistent with that consensus, whereas some interpretations of the DT are not.[16]

4.2 How Efficiencies Should be Incorporated in Merger Appraisal

The substantive test is a lesser source of difference between competition authorities than is the role of efficiencies in merger appraisal. For example, Australia and Canada as well as the UK now have an SLC test for mergers. However, the operation of the test can be very different in each jurisdiction, because of the treatment of expected

efficiencies. In this respect, the EU, USA and UK are much closer to each other than they are to Australia and Canada.[17] The former group is ultimately concerned only with consumer benefits of a merger, whereas the latter allow a trade-off of producer benefits against consumer losses.

Many economists favor the position of the latter over the former, arguing that benefits to firms should be weighed against losses to consumers. This is because consumers are individuals who work in and hold shares in firms, possibly indirectly through pension funds, etc. Furthermore, any undesirable income distributions can be dealt with by the tax system, independent of a particular merger decision.

However, there is an emerging economic literature that supports a strategic motive for keeping the focus on consumer welfare when appraising mergers. Three such motives have been explored: information advantages of firms; lobbying advantages of firms; and the merger selection advantage of firms. Such advantages create a bias in favor of firms unless the standard by which mergers are appraised is appropriately counter-biased in favor of their customers. Besanko and Spulber (1993) suggest that greater weight should be attached to consumer welfare to counter-balance the asymmetric information advantages of merging firms vis-à-vis the regulator with respect to cost savings that are inevitably exaggerated.[18] Neven and Roller (2000) take into account lobbying by merging firms, and the personal benefits this may bring to regulators; they show that raising the weight on consumer surplus can be an appropriate counter-balance to such lobbying. Lyons (2002) notes that competition authorities are only able to appraise a merger brought before them. They cannot propose mergers. On the other hand, the firms can choose whichever merger they wish, including one that only just satisfies the substantive test. Inasmuch as profits and consumer benefit are negatively correlated at the margin, firms are likely to

choose mergers that create negligible total welfare benefit – these would just pass the total welfare standard and maximize profits. While the consumer welfare standard (i.e. allow mergers only if consumers are not harmed) is not necessarily optimal, it is preferable to the total welfare standard, and provides a practical alternative.

4.3 Justifiable Regulatory Action under Ignorance

Economic analysis is not a completed research program. A glance at the increasing number of academic journals demonstrates the volume of new evidence, ideas and intellectual activity. The history of antitrust in relation to vertical restraints provides an illustration. It has moved from the assumption that non-standard contracts must have a monopoly purpose, to the Chicago view that all such restraints must be benign, to a more sophisticated mixed view whereby the rule of reason is (as far as our current state of knowledge allows) appropriately applied. How do these ideas develop? In part, new theoretical tools facilitate better analysis, but more often than not it is a gut intuition that a current view is misleading that leads a researcher to probe at it and seek for a better analysis. This sort of progress is often stimulated by a particular case that has been controversial. Who knows what progress we will make in our economic analysis over the next decade? Meanwhile, competition authorities must make decisions every day, and sometimes they will find a potential mechanism that does not fit in with the current economic models available. I should make clear that I think it is very rare that a case suggests a completely new mechanism that has not been explored in some form by economists, though it might happen.

The first and most important implication must be that high level economic expertise is necessary to bring to bear the most up-to-date economic theory and empirical methods. Only in exceptional circumstances might a competition authority

still be faced with a serious problem: what action is appropriate if no economic models exist to help understand a possibly serious, irreversible anticompetitive mechanism? There is unlikely to be sufficient time during an investigation to commission expert economists to develop new models and debate new mechanisms. Is it sufficient to rely on *ex post* abuse control to reverse the damage if it transpires?

I do not propose even to attempt an answer to this question in this paper but, beyond raising it as an issue, I point to a potential starting point for a debate by listing the criteria applied in another hotly contested area of debate. This comes from a European Commission communication on 'the precautionary principle' in relation to health and environmental risks due to chemicals, etc. The precautionary principle suggests a precautionary prohibition (e.g. on antibiotics in animal feed) can be justified as long as it satisfies: proportionality (to the risks if the action were allowed to proceed); non-discrimination (with respect to comparable situations); consistency (with similar cases where full data are available); cost-benefit analysis (of action vs. inaction); subject to review (as and when new evidence becomes available); assignment of responsibility for producing new evidence.

I can foresee huge problems with trying to apply this to merger appraisal and, on balance, I believe that a modified form of the precautionary principle applied to merger review would be a bad idea. In particular, and unlike with human health, it is unlikely that the downside of a low probability event (i.e. a completely new mechanism for potentially exploiting market power) in the context of a merger would be proportional to any potential harm. However, practitioners face daily problems, and if this topic is ignored by economists, it is likely to reduce the influence of good economics. Precise models waiting to be calibrated are not necessary, but anticompetitive mechanisms that have been found to apply in plausible precise models

(which might not fit exactly with the current case) are necessary. Bresnahan (2002) makes a similar point in the contentious context of foreclosure and leverage theories: 'The bedrock principle should not be, in my view, that the right theory of foreclosure to apply to the case should have already been published in the RAND Journal of Economics. Instead, the bedrock principles should be those of rigorous antitrust analysis. What competition will be harmed? How will the merger harm it? What evidence [qualitative or quantitative or even anecdotal] shows this specific harm and specific link to the merger?'.

5. Some Procedural and Organizational Issues

In this section, I provide a brief international comparison of the administration of competition policy (antitrust), and the procedures used. This builds on the legislation and institutions outlined in section 2, and fills out the backdrop against which the EU reforms can be appraised.

5.1 Merger Guidelines

Guidelines provide an excellent discipline in setting out coherent and consistent practice. It needs to be appreciated that they are at their best when providing safe havens, and not when trying to set out tight analysis more appropriate to an advanced textbook. It also needs to be appreciated that they will often be ignored both by regulators (e.g. the US HHI thresholds appear to be largely ignored in that only cases in substantial excess of them are ever prosecuted) and by the judiciary if they see them to be in conflict with the primary legislation.

There is also a danger of economic fashions getting enshrined when they are past their sell-by date. For example, the HHI was introduced at a time when it was consistent with theories of both unilateral effects and coordinated effects. However, the latter literature has moved on. It is now recognized that symmetric market shares are more likely to facilitate tacit collusion than do asymmetric shares, yet asymmetries give a higher HHI (for a given number of firms). In practice, the HHI is still a very useful indicator, but it no longer has an obvious ascendancy over, for example, a range of concentration ratios.

Nevertheless, it is far better to have guidelines than not to have them, and until very recently they did not exist for DG Comp. Verouden, Bengtsson and Albæk (2003) provide a very useful review of the draft EU guidelines in comparison with the US. Since the new guidelines are still in draft form at the time of writing, it is too soon to judge how they will affect practice.

5.2 Separation of Functions

There are several distinct stages in the application of merger policy:

1. Decision to investigate – known as Phase I in Europe, this is an important filter to see whether or not a merger might create a competition concern.
2. Investigation – the full Phase II investigation, which results in a firm opinion about competitive effects.
3. Decision to prohibit or require remedies – how to act to remedy any anticompetitive effects found during the investigation.
4. Appeal – an important discipline to ensure earlier stages are competently conducted.

Different jurisdictions separate these functions differently. In very stylized form, the arrangements are as follows. The length of the arrows is meant stylistically to represent the time between stages:[19]

- US = 1 + 2 → 3 ------→ 4
- EU = 1 + 2 + 3 ----------→ 4
- UK = 1 → 2 + 3 ---→ 4

In the US, the DoJ and FTC (whichever is given responsibility for a particular merger) combine stages 1 and 2, before presenting their case to the court for a preliminary injunction (stage 3). In practice, most cases are settled before going to court, but the immediacy of the courts has a major impact and discipline. A possible negative is that the courts are very evidence based and consequently may over-emphasize the short term at the expense of long-term factors. On the other hand, it is arguable that they accept a lower standard of proof than European courts.

In DG Comp, all three of the main stages are combined. They are conducted by a single team. Also, the appeal system can take years, so has been largely ineffective for mergers. In fairness, an accelerated procedure has been introduced for certain cases, and this was used effectively for the first time in two of the appeals mentioned earlier. However, accelerated appeals are not universally allowed and there can still be substantial delays.[20] A problem raised by this institutional set up is that it almost invites an investigation team to get locked into a provisional judgment it had to make during the early weeks of Phase I. Human nature is that we prefer to prove ourselves right rather than wrong, so the temptation must be to spend Phase II trying to justify your own prejudices. The distance of the appeal has, until recently at least, provided only a limited constraint.

The UK system separates the stage 1 initial review (conducted by the Office of Fair Trading, OFT) from the substantive investigation and decision (conducted by the Competition Commission). Of course, this separation means the stage 2 team must start from scratch in trying to understand the case, which is either more time consuming (larger investigation team or longer inquiry period) or sacrifices depth of knowledge. In the author's admittedly biased opinion,[21] this is a price well worth paying for a genuinely independent merger review process. The new UK Competition Appeals Tribunal has not yet considered a merger, but it should provide a timely appeals system.

One further issue relates to the timetable for investigations. Both the EU and UK have tight statutory timetables. These can be extended in certain circumstances, and stop-the-clock clauses are available to DG Comp, but these authorities generally stick closely to their timetables. This contrasts with the more elastic US system, which varies much more with the complexity of the case, but which can also drift.

No system is perfect, but it does seem that problems are invited by a system which has neither the immediate shadow of the courts nor the separation of stages 1 and 2.

5.3 Publication

A major advantage of the EU and UK systems is that reasoned (and readable) decisions are published. In the US, far too much remains unpublished and independent reviewers have to rely on a press release and possibly some expert testimony. As any academic knows, written publication is a major discipline for clear thinking, as well as for the dissemination of appropriate analysis.

5.4 Political Element

It has already been noted that DG Comp's decisions must be formally ratified by the European Commissioners. Agreement by the Commission is almost invariably a formality in converting a DG Comp recommendation into a decision. Thus, the merger review procedure is largely administrative. Nevertheless, there are two potentially significant channels of external influence. First, the Competition Commissioner has weekly meetings with DG Comp staff, at which his views on particular cases can be made clear. Second, other Directorates with sectoral expertise (notably DG Enterprise) are widely consulted throughout the investigation, and can be influential. It is impossible for an outside observer to know exactly how much political pressure is exerted through either of these channels.

Political influence in the US DoJ may be exerted by the process of political appointees, but it is difficult for a transatlantic observer to know how much this matters.

In the UK, until very recently, the Competition Commission (CC) made recommendations to the Minister, who then decided (and occasionally she or he did not act on the CC's advice).[22] The Minister could also decide whether to reject the OFT's advice to refer a merger to the CC in the first place. All mergers proposed since June 2003 are under a new regime (established by the Enterprise Act, 2002) which eliminates all political influence – the CC is determinative on nearly all mergers.[23] The decision making process of the CC is interesting in that decisions are made by around four part-time members drawn from business and universities and a full-time chairman, backed up by a strong permanent staff. The normal practice of having at least one Professor of Economics on each panel (known as a 'group') ensures access to high level economic expertise in each merger appraisal. Members of

the CC are appointed for four years, extended to eight at their own discretion, and appointments are not renewable. This guarantees independence from political pressures that might otherwise be brought to bear when seeking reappointment.

6. The Reforms

The main reforms are listed at the beginning of section 3. Before proceeding, however, it is important to note the remarkable achievement of the Merger Task Force (MTF) of DG Comp in the last twelve years, during which time it has established itself from nothing to a widely respected competition force. There have been many excellent decisions. This is no mean achievement and it is this context that the following should be viewed.

6.1 Revised Merger Regulation

There is currently a draft proposal that has been presented as a 'clarification' of the Dominance Test.[24] The clarification purports to say that dominance in mergers can include collective dominance based on unilateral effects, but that dominance for mergers means something different from dominance in Article 82 cases (abuse of an existing dominant position). A cynic might see the new clause as a political compromise to preserve the word 'dominance', to which some Member States are overly attached, while eliminating any meaning that might attach to the word.

More precisely, the proposed wording to be inserted immediately prior to the existing test is: 'For the purpose of this Regulation, one or more undertakings shall be deemed to be in a dominant position if, with or without coordinating, they hold the economic power to influence appreciably and sustainably the parameters of

competition, in particular, prices, production, quality of output, distribution or innovation, or appreciably to foreclose competition.'[25]

In fact, this seems to go much further than a simple clarification of 'dominance', and it slips in a fairly fundamental definition of 'the parameters of competition'. The consultation document (Green Paper), on which this dimension of reform has been based, invited comments on the substantive test. However, discussion of what is meant by competition was fairly tangential to the exercise, and the implications of the proposed wording do not appear to have been worked through. For example, while a constant concern must be to watch out for a merger that might inhibit innovation, it is an incredibly tough test to expect that innovation will be harmed 'sustainably'. Delay should be problem enough. Similarly, none of the commentary surrounding this clause has made any reference to the interpretation I give in the following paragraph.

More positively, on the face of it, the new clause is a fairly clear statement that competition is to be defined as effects based (as in the US merger guidelines). As such, it may be useful in preventing a potentially damaging interpretation of the existing Article 2(1)(b) of the ECMR that it will immediately follow. Article 2(1)(b) states that a legitimate benefit of a merger is if it encourages 'the development of technical and economic progress provided that it is to consumers' advantage and does not form an obstacle to competition'. The concern (derived from the last seven words) has been that a process, as opposed to effects, based definition of competition might see an efficiency enhancing merger as bad if it would eliminate inefficient rivals, even if that was to the benefit of consumers (i.e. merger policy to protect competitors, not competition). This is further developed in the next subsection.

Nevertheless, as far as the substantive test itself is concerned, it would have been far simpler to delete dominance and leave a simple 'significant impediment to

effective competition' test. The fundamental interpretation of competition could then have been separately highlighted in the new EU merger guidelines.

6.2 Efficiency Defense

Article 2(1)(b) is proposed to be clarified further by a new recital relating to the treatment of merger specific efficiencies. 'Recital 24: In order to determine the impact of a concentration on competition in the common market, it is appropriate to take account of any substantiated likely efficiencies put forward by the undertakings concerned. It is possible that the efficiencies brought about by the concentration counteract the effects on competition, and in particular the potential harm to consumers, that it might otherwise have and that, as a consequence, the concentration does not create or strengthen a dominant position as a result of which effective competition would be significantly impeded in the common market or in a substantial part of it. [The Commission should publish guidance on the conditions under which it may take efficiencies into account in the assessment of a concentration.]'

Once again, this is consistent with an effects based merger appraisal using the consumer welfare standard, and it does not confuse the preservation of competition with the preservation of competitors. Since recitals in EU regulations play an important role in interpreting the text, this proposal is helpfully on the right lines.

6.3 Dismemberment of the MTF

During 2003/04, the Merger Task Force will be 'folded' into the other, mainly sectoral, antitrust directorates, and its expertise will be spread around.[26] These units will deal with mergers alongside Article 81 (agreements between firms) and Article 82 (abuse of a dominant position) cases. Despite appearances, this is not meant to be a

punishment for losing a few appeals. The stated aim is to utilize the relative success of the MTF, so that the other units might benefit from the MTF's discipline in working to tight schedules and other work practices. It also allows a better use of resources given the major swings in merger activity.

I agree that there may indeed be a benefit of spreading expertise into the sectoral units, at the same time as having early access to the detailed sectoral expertise. However, I have two reservations. First, there must be a possibility that good work practices will actually be lost by dilution. Second, and much more important, the reorganization misses a huge opportunity in that it does not separate Phase I and Phase II investigation teams.

6.4 Devil's Advocate Panels

The very modest substitute for separation of case teams is that an *ad hoc* panel now convenes to challenge each team's analysis before a decision is recommended. This is a good idea up to a point, but it does not (indeed cannot) come early enough. Once a train has left the rails, it is hard to get it back on again. Devil's advocate panels may prevent gross errors that would be picked up on appeal, but they can be little more than a safety net. Given the strict timetable, they are unlikely to be able to redirect an analysis along more rigorous lines and so run the risk of allowing mergers that in fact require remedy. They are a poor substitute for separation of powers.

6.5 Chief Economist

An academic economist, Lars-Hendrik Röller, has recently been appointed to advise on specific high profile cases in DG Comp (including state aids), and to provide general guidance at an early stage in enquiries and more widely on economic

methodology. The post carries a non-renewable 3-year contract and will be supported by an economics team of ten PhD level economists. This is a very welcome injection of expertise. However, its effectiveness will crucially depend on how well this unit will be integrated into investigations, and at what stage. Modern merger appraisal depends on bringing together law and economics plus detailed industry knowledge. Therefore, real need is for economists, lawyers, accountants and industry specialists to work together as teams right from the start of each case. There is a serious danger of polarization if a specialist economics unit shouts from a distance, rather than engaging in regular debate from the beginning. It is essential both for morale and influence that a member of the Chief Economist's unit is attached individually and substantively with each significant investigation.

This may be difficult given the resourcing of the unit and the range of investigations in which it will be involved. About 1,200 cases will pass under their collective nose each year, half state aids and the rest shared between mergers and antitrust. The Chief Economist's unit will constitute 11 out of 600 staff. Of course, many cases are essentially trivial and the number of decision-making case staff is much smaller, but the new unit is still small. Realistically, it can only get seriously involved in a small number of high-profile cases. What about the rest?

Perhaps the most attractive vision of the Chief Economist's unit in its role for mergers might be that an individual should be attached as a full case team member from the start of all Phase II cases. This would be a valuable injection of objective analysis for the inquiry team (which already includes some members with an economics training). In the absence of a completely new Phase II team, however, the success of such a move would depend on the personal qualities of the individual, as much as on their economics expertise. There is a danger that the Chief Economist's

unit will be viewed as an arrogant hit squad, and so encounter resistance to their ideas. The distinctive challenge facing the Chief Economist (and his unit) is to respect and influence all members of the investigation teams. This will be as important as his excellent credentials as an academic economist.[27]

6.6 Merger Guidelines

A detailed set of draft guidelines for horizontal mergers has been issued. Guidelines for vertical and conglomerate mergers will follow. Guidelines are good for consistency as well as for encouraging case teams to use appropriate economic analysis. While there is no space to discuss the content of the new guidelines, suffice it to say that in principle they are most welcome. In practice, they also represent a significant statement of transatlantic convergence in economic approaches. Verouden et al (2003) provide a detailed comparison with the US merger guidelines.

6.7 Merger Remedies Procedure

A significant criticism of the tight timetable for merger appraisal has been that it leaves no time for the merging parties to propose suitable remedies. By the time DG Comp has understood the competitive impact of a merger, there is no time left for the parties to respond. The final reform I have space to mention is provision for an extended timetable in order to determine remedies appropriate to the competition problem identified. This simple reform seems unambiguously helpful, and has been widely welcomed.

7. Conclusion

I began this paper by asking three questions. Are the reforms in the right direction? Are the reforms sufficient to address all the weaknesses in current procedures? Are they sufficient for DG Comp to move up the competition agency league table? And most importantly, will they improve the economic analysis behind its decisions?

The answer to the first question is a definite yes, but the second must be answered negatively. The most important problem highlighted in this paper is that there continues to be a single case team for all stages of the merger review procedure. All other major jurisdictions either see the need for two or for a court that can act in a timely manner. Other measures, such as the tortuous preservation of the dominance test, are clearly political fudges, patching over the problem without getting to its root. Nevertheless, given the idiosyncrasies in the way the EU works, these patches do not always fall off, and in this case (presuming the drafts get passed into legislation), they may just work. The third question cannot be answered in this paper, because DG Comp has not been alone in its reforms. Fortunately, other countries are also improving so the competition is getting tougher. Finally, I am pleased to say that the most important fourth question can be answered positively. Each of the reforms highlighted in section 6 can be seen as being aimed in exactly this direction. The reform package consistently supports the global trend towards the better application of economics to merger appraisal.

8. References

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Endnotes

[1] Mergers include acquisitions and 'full function' joint ventures (i.e. those which could in principle stand alone from their parents). Joint ventures account for approximately half of all mergers investigated under the ECMR.

[2] In January 2003, the Commission published a proposed modification/clarification of the DT. This is discussed in section 6.

[3] As discussed in section 6, the MTF's reward (or come-uppance?) is that it is being disbanded as part of the recent reform package.

[4] The UK system also has tight administrative deadlines.

[5] There is only one comparable earlier reverse, with judgment being passed by the ECJ. The Commission's remedies (December 1993) attached to Kali & Salz's proposed merger with Mdk resulted in an annulment by the Court (in March 1998) on the grounds of insufficient evidence to support a finding of collective dominance. The outcome of a further eagerly awaited appeal, in relation to GE-Honeywell, is expected probably no earlier than 2005 (the original decision was in July 2001!).

[6] Newspaper reports now suggest that MyTravel (the renamed Airtours) is now suing the Commission for £518m in damages (Financial Times, 20th June 2003). This could break major new ground if it were to create a precedent for damages following a successful appeal in a competition case.

[7] If Schneider were to sue, it might claim €1b in damages (Financial Times, 20th June 2003).

[8] In fact, Airtours/First Choice potentially set a major precedent in its association of collective dominance with a particular economic model of tacit collusion.

[9] These figures omit 7 decisions in 1990 when the MTF was just starting its work. Each of these very early decisions cleared the mergers in Phase I without any commitments being required.

[10] It also reflects the limited grounds of appeal, limited to the law only, at this higher stage.

[11] A further, more technical, motivation was to clarify and possibly extend DG Comp's jurisdiction, especially on mergers below the turnover threshold, but affecting several member states.

[12] State aids are also subject to notification deadlines. An important difference is that addressees of the state aid decision are Member States and not firms.

[13] The test is not explicitly split into parts a) and b). I have separated a single sentence in the ECMR for the purpose of analytical clarity.

[14] There is also a clarificatory new 'recital' proposed for the revised ECMR. See section 6.

[15] This may change if the proposed new Article 2.4 of the ECMR is approved (see section 6). Also, the new merger guidelines seek to address some of the problems outlined above (see Verouden et al, 2003).

[16] The UK has recently reformed its merger legislation, and the SLC test has replaced the previous 'public interest' test. This applies to mergers which are essentially national and so do not fall within the jurisdiction of DG Comp.

[17] The EU, USA and UK consider efficiencies as relevant only inasmuch as they mean there will be no harm to consumers. In the EU, the Commission is required to take into account 'the development of technical and economic progress *provided that it is to consumers' advantage and does not form an obstacle to competition*' [Art.2.1(b), italics added]. In the USA, 'the Agency considers whether cognizable efficiencies likely would be sufficient to reverse the merger's potential to harm consumers in the relevant market, e.g., by preventing price increases in that market'. The UK Enterprise Act formally adopts the SLC test with an override clause that mergers are acceptable if they bring relevant consumer benefits (i.e. lower prices, higher quality, greater choice or greater innovation). In contrast, Australia and Canada at least to an extent weigh producer benefits against consumer losses. Australia applies the SLC test except that an authorisation may be granted if it 'would be likely to result in such a benefit to the public that the acquisition should be allowed to take place' (Trade Practices Act 1974, #90.9). This apparent paradox (consumer welfare is all that matters unless the firms appeal for an authorisation to take total welfare into account) can be explained by the fact that an authorisation switches the onus of proof from the competition authority (ACCC) onto the merging firms who must formally apply for an authorisation. It also makes the trade-off explicit and public (and is rarely taken up by firms). Until recently, it was thought that Canada had a full trade-off of consumer and producer welfare, but this appears to have been modified by the Propane case appeal (2001).

[18] Practitioners are well aware of the difficulties of verifying claims which of their essence must be speculative (see the guidance notes published by almost any competition authority). Also, the authorities require that efficiencies between the merging firms cannot be achieved without the merger.

This raises some issues addressed in transaction cost economics and incomplete contract theory relating to the efficient boundaries of the firm, and what can and cannot be achieved by market contracts.

[19] Burnside (2002) also summarises procedures in Belgium, France, Germany and Italy. DG Comp is unique amongst these countries in combining the first three stages under a single body.

[20] Even under the expedited procedure, the CFI judgements have taken 12 months after the initial Commission Decisions, which themselves were 5-6 months after original notification of the merger proposals. Few merger proposals are resurrectable after such a period. In the absence of the expedited procedure, the appeal takes much longer. For example, Airtours/First Choice took just under three years from Commission Decision to CFI judgement. The outcome of the GE/Honeywell appeal is expected to take around four years.

[21] The author is a part-time Member of the UK Competition Commission.

[22] The last of such cases comes up for ministerial decision in January 2004.

[23] In exceptional cases, notably in cases of national security, the Minister may still intervene on the grounds of the public interest.

[24] The draft is being considered by the Council of Ministers and European Parliament. It was expected to come into force in May 2004. However, at the time of writing, the European Parliament was expressing substantial concerns about the proposed revision.

[25] Further 'clarification' is provided by Recital 20: 'Irrespective of the structure of the relevant markets affected by a concentration or of the manner in which economic power is manifested or exercised, dominance should be defined in such a way as to reflect a considerable level of economic power held by one or more undertakings'. Recitals are provided at the front of EU legislation as an explanation of the motivation for the legislation that follows. See Verouden et al (2003) for an explanation of this recital by insiders from DG Comp. At the time of writing, there is continuing debate about these 'clarifications'.

[26] This will be done in two steps. During 2003, the MTF will continue to exist in a scaled down form, while merger units will be created in all sectoral directorates. In 2004, the rest of the MTF will then disappear (except possibly as a coordinating body).

[27] I originally wrote this before Professor Röller's appointment to the post. His personal qualities give me some comfort that this problem might be less serious than I had initially expected.

REVIEW OF INTERNATIONAL ECONOMICS

What Happened to the Japanese Model?*

Ulrike Schaede

RRH: The Japanese Model in the Nineties
LRH: Ulrike Schaede

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Abstract: Japan's steep postwar economic growth was nested in a political economy build around producer-oriented policies: by fostering the growth of large firms using the tools of industrial policy, the government could jumpstart development. Many large firms, and their employees, benefited indirectly from this growth program, and very small firms and industries not included in the growth model were compensated through preferential policies or subsidies.

Japan's social contract evolved around this system, having as its centerpiece lifetime employment (and its trickle-down effects). Within this setup, the government spent more resources on supporting exporting industries and compensating domestic ones, than on building a forward-looking welfare system.

Japan's decade-long economic downturn is not just a post-bubble recession any longer; it marks a structural transition towards a post-industrial society. But while excelling in producing tangibles, Japan has fallen behind in fostering 21st industries, including services; the country also lacks a welfare system to handle the increasing structural unemployment that this transition necessarily brings about. Thus, the government is frantically trying to maintain employment – by launching public works programs or bailing out bankrupt large firms –, which in turn undermines most of its own reforms. Without a commitment towards a welfare system and a welfare society, and a reorientation of the social contract towards the citizens, Japan is unlikely to transition successfully to the next stage of development.

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What Happened to the Japanese Model?

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1. Introduction

Japan's fast industrial success after 1945 and its emergence as an economic superpower in the 1980s have found many admirers. Next to entrepreneurial ingenuity and serendipitous timing in terms of global trade policies, many analysts credit the success to "industrial policy" – the government's continuous attempts to support strategic industries through preferential financing and infant industry protection, the structuring of incentives to pool scarce resources into joint research and developments, the allowance of extensive exchange of information among competing firms, and, overall, an interference in the allocation of resources (e.g., Ozaki, 1972; Upham, 1987; Uekusa, 1987; Aoki, 1988; Dore, 1987; Okimoto, 1989; Haley, 1991; Hoshi and Kashyap, 2001; Katz, 1998, 2003).

Literature on Japan of the 1970s and 1980s was mostly concerned with explaining the structure of these policies and processes, and how they combined to result in fast economic growth (e.g., Patrick and Rosovsky, 1976; Johnson, 1982; Vogel, 1979). Extending into the 1990s, researchers in business studies added to the political view explanations and analyses of Japanese management practices, innovative human resource management, and business strategies, while others pointed to the independent role of

industries and entrepreneurs in commercial success, regardless of government policies (e.g., Yoshino, 1971; Ouchi, 1981; Abegglen and Stalk, 1985; Cole, 1983; Gerlach, 1992; Schaede, 2000a). Macroeconomists built models involving factors such as high savings, high aggregate demand driven by investments, an opportune exchange rate (e.g., Shinohara, 1982; also Katz, 1998 for an overview). Political scientists and economists conducted case studies suggesting that not all industrial policies were successful – and some were outright failures –, and that in contrast to the model of a strong bureaucracy, politicians were critically involved in leading the policy-making processes (e.g., Weinstein, 1995; Callon, 1995; Ramseyer and Rosenbluth, 1993; McCubbins and Cowhey, 1995).

Yet, even within that controversy of whether industrial policy was really a success and who did it, no one seriously argued that industrial policy was not attempted or did not exist. Coined originally in Japanese (*sangyō seisaku*), the term was literally translated to become standard English. Clearly, Japan's government worked to structure its own political-economic model of economic growth, and the country's fast development occurred within the parameters of this model.

This paper raises the political economy question of the social outcome of this system. Japan has enjoyed enormous economic success and is now an affluent country. What is next? The downturn of the 1990s, Japan's "lost decade", is more than just a business cycle problem; the world has changed within and around Japan, and Japan has to move towards new ways of earning income and profits, and to redistribute that income across its society. Yet, the existing model of industrial policy is ill-equipped to guide politicians and bureaucrats towards this new system. This paper begins to tackle this

challenge by providing a background analysis of the specifics of Japan's existing social contract – or *contrat sociale,* as the French philosophers coined the phrase – and the constraints it faced in the early 21st century.

Japan's postwar social contract was highly heavy industry- and growth-specific – much more so than even in postwar West-Germany –, and the functioning and cohesiveness of this social contract was predicated on growth. In general, social contracts are difficult to change because of the vested interests they create over time, which serve as built-in stabilizers but are also forces resistant to change. Thus, except for the extraordinary cases of revolution, to the extent that change occurs it is mostly incremental. Japan's social contract is particularly difficult to change, because it is so growth-centered and is being challenged at a time of low growth: it is difficult indeed, for all interests involved, to question a growth-oriented system when growth is what people think is needed, and it is easy for the vested interests in the system to lobby for upholding existing stakes. As a result, Japan has been unable to embark on the transition to a post-industrial society with a more fully-fledged welfare system for the structurally unemployed. It is as if the country were in a state of denial as to the reality that its world competitive advantage in manufacturing has been eroded by lower cost Asia producers and that it must transition to a new industrial and societal structure. Moreover, in contrast to other countries, such as Germany where vested interest are widely dispersed (unemployed and poor, large firms, small firms, unions) and thus pull the country in multiple directions (resulting mostly in standstill), Japan's vested interests are all fairly conservative (large and small firms, agriculture) and thus are able to block change

effectively. The lack of a powerful consumer, citizen or individual taxpayer lobbies will continue to critically shape Japan's course.[1]

The paper concludes that there is nothing fundamentally wrong with the "Japanese model" – it may still work for developing countries, if properly adjusted to a changed world trade environment. What has changed is Japan itself: as an affluent country, industrial growth for the sake of growth is not what the country and its people need. Rather, a shift to post-industrial industries is in order. Japan's policies and the social contract must adjust to a changing pattern of production and employment, including demographic changes in the workforce. The existent industrial policy model cannot help with this task. Unfortunately, the country's government did not prepare for the needed transition by building a well-funded social security system; instead, it is defaulting on its part of the social contract. Policy measures taken in the early 21st century to help Japan back on track are aimed to cover up this fundamental misalignment and therefore do not produce real reform.

2. The Social Contract

A social contract is the covenant based on which a society and state are constituted. While going back in its origins to the Greek sophists, the concept was more fully developed by the great state philosophers of the 17th and 18th centuries (e.g., Locke, 1690; Rousseau, 1762) who first addressed the relative roles of citizens and the state as well as the legitimacy of the state's authority. In contemporary use the concept has two meanings. Macroeconomists think of it narrowly as of the justification of incomes policy: how many services does the government have to provide in return for its right to reduce

citizen's incomes (e.g., through high taxes, high prices, or fees). Political economists – especially in continental Europe where the "social contract" has been a huge issue of political debate for more than a decade – use it more broadly as the whole system of state-society relations that govern the ways in which a society and its polity are structured and justified. This paper uses mostly the second meaning of "social contract".[2]

Reflecting significant differences in basic societal assumptions, and subsequent political and economic struggles within and across nations, states or societies differ in how this social contract has evolved over the course of their histories. In postwar West Germany, for example, the covenant reached between state, taxpayers, businesses and labor was that the state would be allowed to reduce household incomes and tax companies significantly, as a price for a reliable and comparatively generous social security system, free education, social stability, and general health care. The social contract of the United States, in comparison, is discussed (if at all) in terms of freedom and equality; i.e., it is much more individualistic, as people are free to get very rich if they choose to work hard, but they are largely on their own as it comes to many aspects of social security (such as health insurance).

Importantly, the social contract is not a written treaty but rather a tacit covenant, based on decades and centuries of bargaining among a country's leading interests. Given that this covenant has grown over time, and has been shaped as much by political promises as by negotiations with employers and labor and the country's societal norms and values, it is difficult to change, either incrementally or radically. Over time, the initial agreements on government transfers and welfare have created strong vested interests (e.g., Olson, 1982). Moreover, because the contract is not spelled out and signed, it

cannot be directly challenged in some kind of court. Finally, for true reform the state would have to challenge all existing interests at the same time which is usually unfeasible, and given widespread mistrust of the government and each other, no interest group is likely to agree to be the first to see cuts. As a result, changes in social contracts usually occur only with real crisis – economic depression, a domestic revolution, or other major historical upheavals.

The interesting issue at the turn to the 21st century is that social contract fissures can be observed in many industrialized countries. In the United States, more and more citizens are upset with the social costs and consequences of too many homeless people, and millions without health insurance. In continental Europe, and in particular Germany, the relative generosity of the welfare system is threatening to bankrupt the governments. In Japan, this paper will argue, the biggest issue with economic reforms in the first decade of the 21st century is that the government has defaulted on its role within the social contract, such that there is insufficient welfare funding to allow firms to restructure as drastically as needed for a transition to a post-industrialized society.

3. Industrial Policy and Japan's Social Contract in the Postwar Period

The System of Industrial Policy

After WWII, 40% of Japan's industrial capacity was destroyed. Yet, within four decades, Japan emerged as the second largest economy in the world and an industrial leader, first in shipbuilding and steel and later in cameras, precision machinery, electronics, and automobiles. Contributing to this enormous success were producer-oriented policies of

keeping costs of borrowing low; flexible, informal regulation based on close ties between businessmen and bureaucrats; a stable political system; a high savings rate and a high level of domestic investments; hard-working, well-educated people and advanced corporate skill formation techniques; a supportive world economy; a lot of managerial ingenuity; and maybe a little bit of luck. The story of Japan's postwar economic growth and its macroeconomic underpinnings has been well told and is not a main concern of this paper (e.g., Nakamura, 1985; Johnson, 1982; Patrick, 1962; Yamamura, 1967; Hadley, 1970; Patrick and Rosovsky, 1976; Yamamura and Yasuba, 1987; Katz, 1998). For the purpose of discussing the "Japanese model" of structuring a political economy supportive of high growth, the following overview will focus particularly on two aspects of industrial policy that have perhaps created the strongest vested interests: industrial protection and promotion, and informal regulation.

The system evolved in trial and error fashion. With a few ideas borrowed from communism and prewar regulatory patterns, Japan's government structured a highly regulated trade and finance system focused on importing advanced technologies and pushing strategic export industries. Banks were given strong incentives to channel funds with preferential conditions to those industries that were politically and pragmatically determined as "strategic", and their support industries (Patrick, 1962; Calder, 1993). In the 1950s and 1960s, these were steel, energy (power) and heavy machinery, petrochemicals, chemicals, and shipbuilding. Within a short time, their fast growth transformed Japan's economy from an exporter of toys and textiles into a heavily polluting economic juggernaut.[3] The oil crisis of the early 1970s triggered a feat of industrial restructuring: After one decade of recession and suffering, Japan re-defined its

strategic industries (automobiles and electronics, especially semiconductors, office equipment and information technologies, and the support industries to these) and re-oriented its industrial policies to support these new industries while slowly attempting to phase out yesterday's leaders.

Until the end of fixed exchange rates in 1973, the main transmission mechanism of government programs for strategically targeted industries was finance: by regulating interest rates at a low level and monitoring loan volume and clients of the large banks, the government ensured that the main recipients of scarce funds were indeed the targeted industries (Patrick, 1962; Horiuchi, 1980; Royama, 1982; Schaede, 1989). Under fixed exchange rates, the government dealt with an overheating economy (i.e., situations when imports exceeded exports) by shutting down access by private banks to central bank funds. Given that banks were dependent on refinancing from the government, and large corporations depended heavily on bank loans, this proved very effective. When the economy calmed down and the foreign reserves situation normalized, the central bank would once again allow easy access to funds by banks, and by extension, their corporate clients.

Most large companies were members of corporate groups (*keiretsu*) which at their center had a "main bank". In addition to owning a small portion, monitoring the client company and providing primary financial services, the main bank was also called into action in case companies ran into trouble. With the help of other financiers, the main bank would organize a bail-out program and help the company's management to launch a turnaround (Sheard, 1994; Aoki and Patrick; 1994). The government was usually behind these moves and, if necessary, supported the main bank with supportive tax provisions or

beneficial regulation. As a result, no major company went bankrupt in Japan between 1949 and 1972, and bankruptcies overall remained very low until the 1990s.

In terms of assuring that the important firms would indeed be highly profitable, the government relied on trade protection to allow for "profit sanctuaries", and it dealt with any problems through informal regulation. Given easy and cheap access to capital, firms – especially in capital-intensive industries such as steel – had no reason to hold back on investments. In times of easy money, all firms would invest heavily, only to face overcapacity when things slowed down. Japan's Ministry of International Trade and Industry (MITI, now METI – Ministry of Economics, Trade and Industry) coined a term for the resulting situation: "excessive competition" (*katō kyōsō*). To ensure that firms in one industry would not ruin each other through cutthroat competition, the government fostered close interaction of industry executives in their trade associations by asking members to attend meetings where cooperative bargains would be agreed upon (Yamamura, 1967, 1982).

Executives realized how much easier it was to earn a profit when knowing all about their competitors, and soon began to self-regulate more broadly. One means of keeping markets "orderly" was to constrain imports to the needed raw materials and products that were not produced in Japan; for most other items, distribution channels were closed up through boycotts of new entrants, especially foreign firms. Overall cartelization sometimes proved difficult where foreigners undermined the scheme, but it is remarkable in just how many industries the import ratio (the percent of imports in total products sold in Japan) remained below 5% even in the 1990s (Schaede, 2000a).

An extension of this trade protection was for exporting manufacturers to charge high prices domestically and use the resulting high profit margins as a cushion to compete most aggressively abroad. This sanctuary strategy has been observed even in world leading industries such as electronics and photo film (Schwartzman, 1993; Dewey, 1995; Schaede 2000b). While certainly not all industries were able to reach agreements to cooperate, in many of Japan's leading industries domestic prices were high, stable, and similar across competitors, so that firms could profit from this strategy, at least in their infant stages.

The government's goal with allowing industry cooperation was straightforward: by encouraging firms to cooperate and jointly strategize on research, fixed plant investments, and other important business parameters, "wasteful" competitive activities such as duplicate equipment could be minimized. By joining forces in research consortia, for example, resources could be streamlined and the best researchers at the time could be brought together in the joint facilities. The government could then allow the import of cutting-edge technologies, and dissemination among all major competitors would be immediate; corporate competitive efforts could then go into developing the best commercial applications for the new technology.

It goes without saying that aggressive, highly entrepreneurial executives fighting for market share resented these constraints on competition. Some were bullied into going along (such as Sumitomo Metals, see Johnson, 1982: 268-272). Others succeeded in disturbing the agreements, making the industry a "maverick" (i.e., ungovernable). In many industries, however, executives realized that in the long run they benefited from more certainty through cost information on their competitors, limited price competition

(and competition based on product features), stable and exclusive distribution channels, and aggressive exports.

An important aspect in understanding this situation was the government's approach to regulation. In contrast to the United States, where regulation consists of a mixture of entry regulations (such as licenses, permits, etc.) and process regulation (monitoring of compliance by independent supervisory agencies, such as the Securities Exchange Commission), Japan's regulatory focus was almost exclusively on entry regulation. The variety and number of licenses, permits, notifications, or registrations required to conduct business seemed boundless (Suzuki, 1995; Vogel, 1996). One major rationale for these multiple entry barriers was that they made the various ministries powerful: the more licenses needed, the more *giri* (obligations) could be created in the process. This was the basic logic of administrative guidance – an approach to regulation based on a *quid pro quo* relationship between bureaucrats and business. The ministries would try to achieve a certain policy goal by promising favorable treatment, or threatening with unfavorable decisions in future, possibly unrelated instances of regulation (e.g., Johnson, 1982).

At the same time, there was hardly any formal process regulation in Japan. Not only were there no independent regulatory agencies (with the exception of the Fair Trade Commission, which sat hamstrung most of the time, cf. Schaede, 2000a). The ministries in charge of nurturing the various industries also had the task of monitoring compliance with rules. This was done not through due process and formal checks and balances, but on an informal basis. Two mechanisms for this informal regulation stood out in particular: the "ministry-*tan*" and the system of "Old Boys". The "-*tan*" was a company employee with the specific task of keeping in constant contact with the bureaucrat in

charge of the industry. In some industries, this meant daily or at least weekly personal visits at the ministry and, as some scandals in the 1990s suggested, nice dinners or golf outings may also occasionally have served as fora for exchange. Most large companies and banks had such an employee in their roster.

The respectful term "Old Boys" (in Japanese: *OB*) connotes "retired wise men", and in particular refers to former ministry officials employed by private companies. The company's objective with this system was to manage an important resource: the provider of regulation. The OB were interested in this system because it was their chance to increase lifetime income (since bureaucrats, while members of the societal elite, were not highly paid). Importantly, the OB were also a channel for informal regulation: whenever easy access to the ministry was needed, the company could rely on the OB's contacts and seniority position vis-à-vis the current regulators in the ministries.

The predominance of informal regulation, combined with the *quid pro quo* logic of administrative guidance, was identified as a major trade barrier for foreign competitors and led analysts to invoke the phrase "Japan, Inc." (Kaplan, 1972). Within Japan, it created mutual obligations and strong interdependent and vested interests among large firms and bureaucrats. The large firms did not only benefit from government support in the form of subsidies, preferential tax measures, low interest rate loans, and free technology. They also benefited from lenient regulation and disclosure rules, cooperation with competitors, and insider deals with the regulators. The closeness to the regulator eventually made it all the more difficult to come down hard on businesses when serious reforms were needed in the 1990s: firms could argue that they had always cooperated with government programs in the past, so why were they all of the sudden deprived of the

fruits of their cooperation?[4] Informal regulation created vested interests of a special kind in a society where loyalty and keeping a promise are considered important norms.

Japan's Social Contract during the High-Growth Period

The underlying logic of industrial policy in the 1950s was that if large firms could grow fast, they would provide employment and carry the rest of the economy with them: even if large firms accounted for only one quarter of total employment, over time small firms would benefit from their spearheading the development. Employment was of preeminent importance because Japan's Constitution states in Article 27(1) that "all people shall have the right and the obligation to work". The courts' interpretation of this clause has been that the government, therefore, has either the obligation to intervene in the labor market so as to enable applicants to obtain suitable employment, or to guarantee the livelihood of those unable to find such employment (Araki, 2002: 7). Because the government had limited resources at the time, a rapid buildup of a full-fledged social security system was impossible, and the policy objective became to help firms in employing an increasing number of people over time. This stance constituted the postwar policy background for a series of court decisions that over time made it increasingly difficult for a company to lay off workers. By the 1970s lifetime employment had become an institutionalized system backed up by legal precedent and upheld by the courts.

This employment logic held even though initially large firms only employed a small portion of all workers, and roughly one third by the 1980s. The system of stable supplier and buyer relationships cemented through vertical and distribution *keiretsu* (corporate groups) extended the system even into the realm of small firms. Most large firms had a

line-up of exclusive small firm producers of input materials and parts, as well as distributors of the finished product. The core notions of the exclusive supplier (*shitauke*) or distributor relationship were stability and loyalty: if the small firm fell behind in quality or technology aspects, the large firm would come to its aid; in turn, if the large firm fell onto hard times, the suppliers' profit margins would be squeezed for the duration. Suppliers often formed associations that furthered the "one family" notion of the *keiretsu* suppliers (see, e.g., Smitka, 1991; McMillan, 1990). When large firms "retired" their "lifetime employees", often early at around age 55, these retirees would typically be provided continued employment opportunities, if at a reduced income, at affiliated suppliers. Thus, while the employment with the large firm was not necessarily "lifetime", the employment within that large firms' corporate family often was.[5]

About 50% of Japan's small firms were *shitauke* suppliers to large firms (Yabushita and Bushimata, 2002) and could count on steady business relationships with the buyer. The resulting stability translated into a willingness by small firms to employ a growing portion of their workers under full-employment contracts (*jōyaku*). Looking not at the number of employees in large firms only, but rather at all employees that could reasonably expect to have a claim in court for lifetime employment based on their *jōyaku* labor contracts, Araki, (2002) argues that roughly 87% of the Japanese workforce was in a lifetime employment situation, even as late as 2001 when court interpretation had already begun to change (see below). In other words, during the high-growth period, the social responsibility of the Japanese firm was to employ.

Revolving around this notion of lifetime employment, Japan's social contract logic began with a distinct producer-orientation. Fast growth of large firms was supported by

industrial policies. In return, large firms offered “lifetime employment”, not as an outright legal obligation, but rather a social norm, as part of an understood bargain as the price to pay for their privileges in the system. Lifetime employment made a national, fully-fledged pension and welfare system less essential. Pensions were comparatively low, and were thought not to be the sole source of income, but rather to supplement after-retirement income of an employee who would either work in a small firm or use up savings over time. Lifetime employment also greatly reduced the need for a comprehensive unemployment insurance system. Only in 1973 did the government begin to build a social security system, though initial efforts were soon thwarted by the 1973 oil shock. To this date pension payouts, and the Japanese welfare system in general, remain comparatively limited.

For households, the social contract tradeoff was social stability at the price of low real incomes (low returns on savings, low wages, and high prices). Stable employment for a large part of the workforce led to income certainty and better education over time. With continuous high growth rates, life was getting better as households benefited indirectly from a slowly improving infrastructure. Households largely agreed to producer-oriented policies and cartels because they highly valued the resulting stable, predictable social development. The conservative Liberal Democratic Party staid in power without interruption between 1955 and 1993.

The social norms and values underlying this covenant were certainty, risk aversion, societal stability, safety, education, and perceived income equality (expressed in repeated public questionnaires, *yoron chōsa,* in the 1970s and 1980s, when roughly 90% of

households considered themselves “middle-class”). In this system, no major bankruptcies would occur, no mass layoffs would be triggered, and no social unrest would be fueled.

As the Japanese economy hit a structural roadblock with the oil shock of 1973, which required a redefinition of the “strategic” industries, industrial policy gained a second dimension: next to nurturing the strategic industries, measures were introduced to “phase out” matured industries by providing subsidies and other measures to help firms in those industries to make a slow exit and lower their employment through attrition.[6] This created a new group of “losers”. Those industries that lost “strategic” status were often compensated with special programs (taxes, etc.) or promises of future support (Calder, 1988). With this "compensatory” statuse, these industries joined other societal groups that were largely neglected in the social contract. One such group was small and very small firms in traditional industries – i.e., firms that were not part of the supplier/*keiretsu* system, that did not supply to exporting industries, and that did not employ on a lifetime basis.[7] The compensation for very small firms came in the form of a series of support laws of the 1950s and 1960s that exempted these firms from antitrust regulations and encouraged them to cooperate, and a number of special loan programs at subsidized rates aimed to help small firms weather the business cycle (see below).

The government’s responsibilities in the postwar social contract setup thus were to: (a) craft policies to support employment and stability in large firms; (b) craft compensation policies for neglected sectors; and (c) build a welfare safety net for those citizens that were unable to find gainful employment. As has become clear since the late 1990s, the government has largely defaulted on the third of these three tasks, and to make up for this mistake it was forced to interfere with its own reforms in the late 1990s.

4. Changes in 1990s

New Challenges of Restructuring in the 1990s

Beginning in the 1980s and extending to the current, Japan has faced three major changes in its environment that have affected the underlying logic of the postwar model: globalization and trade multilateralization; deregulation; and economic downturn.[8] With the strengthening of GATT rules through continuing rounds of trade negations, and with the creation of the WTO (World Trade Organization), it has become increasingly difficult for Japan to export its way out of recessions by selling at low prices abroad while keeping domestic markets protected and closed. As early as in the 1980s, the U.S. and the European Union began to retaliate against Japanese barriers to import by establishing special tariffs and other means. Repeated iterations of U.S.-Japan trade negotiations throughout the 1980s forced Japan to allow imports in certain product markets. All these efforts notwithstanding, the overall ratio of imported goods in total Japanese sales remained low even in the 1990s (Schaede, 2000a).

The trade negotiations therefore switched to "structural impediments", first and foremost Japanese regulation. Administrative guidance, with its mutual favors and informal deals, and the exclusive relations between Japanese producers and their distributors were highlighted as major obstacles for foreign competitors, as was the overall number of rules and regulations – be that in manufacturing, distribution, or finance.

As early as in 1983, the Japan-U.S. Yen/Dollar Committee had published a report that prescribed an ambitious reform agenda for financial markets.[9] Interest rate

deregulation began in 1983 and lasted for more than a decade. Deregulation and the opening of Japan's financial markets to global transactions brought the end of the controlled trade and finance environment of the postwar industrial policy model. Large, internationally competitive companies could now raise funds abroad, which greatly reduced their dependence on domestic banks and bureaucrats. Administrative guidance lost one of its pillars. Importantly, however, huge pockets of protection remained within Japan, both for small banks and for domestic, cartelized industries (such as cement, paper, food processing, or construction; cf. Katz, 1998). As a result, industrial policy switched to an approach of "permeable insulation": protection continued for those who wanted it, but the successful multinationals were allowed to break out (Schaede and Grimes, 2003). This dual-track approach eventually strained politics and bureaucracies alike, contributing to the first electoral loss of the LDP since 1955 in the 1993 election, and a series of scandals involving bureaucrats.

Financial protection concurrent with deregulation fueled the bubble economy of the late 1980s, as it became possible to raise funds cheaply in regulated market segments and invest in deregulated (higher interest) market segments (e.g., Hoshi and Kashyap, 2001). This allowed companies that had passed their prime in their businesses (e.g., shipbuilding) to earn profits through financial investments, and it greatly spurred the stock market and real estate boom. The "bubble" burst in 1991, when the central bank raised interest rates. It had become apparent that rules and regulations had been violated all over, and companies were overextended in pyramid schemes. Banks were tremendously overexposed to speculators. The government took a series of measures and actions that were not necessarily unreasonable at any given step, but from hindsight all

turned out to be insufficient to address the non-performing loan problem early. Given lenient disclosure rules, the extent of the banks' exposure to bad loans became clear only after a few smaller banks went bankrupt in 1995 and the books of their affiliated non-banks were seen in daylight. In 2003, most of the large banks' efforts to clean up their books had proven futile, forcing the government to purchase bank shares at a large scale to enable banks to stay in business and maintain the 8% BIS capital adequacy ratio. As a result, some of Japan's leading banks are now owned to varying degrees by the government. The pillars of the *keiretsu* and the main bank system began to crumble.

Possibly even more important than the bubble and its aftermath was the fact that the globalization of trade fundamentally altered Japan's industrial structure, as Japan lost its previous cost and quality advantage to competing countries. Large firms in electronics, automobiles, machine tools and an increasing number of other industries found themselves under increasing competitive pressure from Asia. In a phenomenon referred to in Japan as "hollowing out" (of the industrial base), an increasing number of firms relocated production abroad to lower their costs, thus reducing their domestic workforce (METI, 2003). This in turn put pressure on the vast networks of tightly aligned suppliers: as assembly plants moved to Asia, suppliers also had to locate their production abroad, lest they be replaced by lower-cost foreign suppliers. Unless they possessed a cutting-edge process technology or were extremely innovative, those that staid in Japan were doomed.

As these pressures unfolded, the rigidities of the postwar model placed tremendous constraints on Japanese firms. Lifetime employment meant that large firms could not easily restructure, yet were incurring increasing fixed costs. One large firm after the other

found itself in trouble, unable to launch the needed turnaround. As this coincided with the banking crisis and large banks were fighting their own bad loan situation, banks were less and less willing or able to bail out their troubled clients. For the first time in the postwar period, a series of large firms went bankrupt in the 1990s. Together with the logic of the main bank system, the system of lifetime employment – that no large firm would lay off employees or go bankrupt – unraveled.

To address the constraints faced by large employers and the economy overall, courts began to rule differently on "lifetime employment" cases. By 2000, several regional courts had found that in contrast to the previous four main requirements needed to lay off a full-contract employee, now being able to justify just one of these conditions, including a catch-all "adverse business situation", was sufficient. Effectively, the courts began to allow layoffs by changing the interpretation of the *jōyaku* labor contract (Araki, 2002). Together with a stop on new hiring and attrition, this legal change allowed firms to restructure. The official unemployment jumped to over 5%, although this figure did not capture workers in positions other than full employment, such as part-timers.

Growing unemployment threatened the government, which had insufficient funding to deal with large numbers of structurally unemployed (i.e., long-term welfare recipients). In the 1990s, the government had tried to address this issue through "make work" procurement programs, especially public works related to construction. Yet, by the 21st century, these measures proved insufficient to maintain employment. The government did not invoke the usual protective mechanisms when foreign firms submitted bids for what use to be flagship companies, such as Nissan/Renault, and the Long-Term Credit Bank/Ripplewood Holdings (now Shinsei Bank). In addition to allowing foreign "white

knights" to bail out domestic firms, the government also increasingly intervened and asked banks to bail out large and medium-sized firms (such as the Daiei supermarket chain, the Sogo department store, and a number of construction firms).

Part of the underlying thinking with these actions was that if a larger firm faltered, it would take with it a huge number of exclusively tied-up suppliers, wholesalers and retailers, thus causing a whole wave of unemployment beyond the layoffs triggered by the initial large firm failure. Given the country's constitution, the government was obligated to provide either work or compensation. Given the government's failure to save in the good times, and the fast growing government debt, Japan was in no position to pay unemployment insurance and welfare to large numbers of structurally unemployed. Therefore the government intervened in the market to keep "zombie firms" (*de facto* bankrupt entities) and their affiliates alive and employing.

A second part of the logic was the heritage of administrative guidance: many of the firms that were threatened had in the past cooperated greatly with the government, occasionally even against their own interests, and it would have been impossible for the government to let these companies down when they needed help most.[10]

As for actual bankruptcies, the annual number of cases had been high with about 14,000 in the early 1990s, but reached new records with 18,500 reported cases in 2000, and more than 19,000 in 2001. More than 99% of these bankruptcies were among small firms, defined in Japan as companies with fewer than 300 employees or less than ¥300 million in capital; in fact, statistics suggest that most bankruptcies occurred among "very small" firms with fewer than 20 employees (METI, 2003). In spite of these huge numbers of bankruptcies, Japan's official unemployment rate staid at around 5%. One big reason

for this seeming contradiction is that many "very small" firms have few or no full-time employees, but rather family workers, so that neither the official workforce size nor the unemployment data are affected by an exit. Thus, the extended slump and recession that began in 1991 and continued throughout 2003 meant that even though official unemployment figures remained at about 5%, hidden unemployment by part-time and other non-standard skyrocketed.

In sum, the opening of borders and globalization of trade has challenged the fundamentals of Japan's industrial structure. Japan needs to move from an industrial logic anchored in large-scale mass production to fuel an export machinery, to an industrial setup with a much reduced manufacturing base that offers employment in industries that provide products and services that an affluent society enjoys to consume. By 2003, the fact that this evolution was not occurring had caused a social problem of unforeseen dimensions that challenged Japan's social contract.

Japan's Social Contract in the 21st Century

Because official data do not capture unemployment adequately, and because very small firms often underreport their earnings and employ an unknown number of family members without salary, it is difficult to capture the true dimensions of Japan's social problems in the early 21st century. We just cannot be sure how many individuals are affected by the downturn. For example, in 2003 the Ministry of Health, Labor and Welfare stated that the total number of homeless in Japan was at about 25,000. The same ministry, in its 2003 White Paper, also claimed that the country's health and welfare system were adequately funded and there was no need for worry – but these statements

were widely met with incredulity (MHLW, 2003). In early 2003, some observers put the total number of homeless at some 400,000, and that was before the Osaka City Government issued an official statement in mid-2003 that the park around the Osaka Castle was overflowing and closed for new homeless.[11]

Another indicator of the grave social ramifications of the extended recession and the lack of a social safety net was the suicide rate: while always somewhat above world average, by 2000 the suicide rate in Japan had surpassed 30,000 cases per year – or more than 80 cases a day. One popular explanation offered in this context was that a sense of nobility and responsibility associated with the old *samurai* spirit made suicide a dignified exit and socially accepted excuse for failure. Perhaps much more importantly, however, life insurance contracts were paid out to the beneficiaries even in case of suicide, setting a strange incentive in an extended recession; insurance companies began to change this policy only in the early 2000s.

What had happened to the safe, secure, stable, clean and orderly Japan? Two major points can be highlighted: First, Japan's social security setup was predicated on growth, and the country was incapable of dealing with very low growth; and second, while Japan was growing, through the mid-1980s, the government had neglected its task of building a welfare system for the future, leaving the country without a social safety net when growth stalled. Therefore, as Japan is challenged to make the transition to a post-industrial society, it is not just left without a "model" of policy-making to address the new challenges; it also lacks an established social security system to soften the move.

To argue these points in order, as we have seen the logic of Japan's social contract meant that unemployment insurance was needed only for employees at those small firms

that were not part of a tight *keiretsu;* luckily, because the economy was growing fast, these workers were typically able to find new employment within a year. Accordingly, the government structured and over time upgraded an unemployment insurance system that, as of 2002, granted unemployment insurance of up to 80% of the previous salary, paid for up to 330 days (depending on age and tenure with the former employer) (e.g., Niimura, 2001). Until the mid-1990s, unemployment insurance was rarely used, given the practice of lifetime employment plus the continuing employment of long-term workers in small firm affiliates after early retirement.

Pension payments, likewise, could be kept minimal. Part-time and family workers did not qualify for pensions.[12] Lifetime employees, which had to retire early (often at around age 55) would then be helped to new employment in affiliated companies, and many males worked several post-retirement jobs, often through their 70s. Therefore, comparatively low pension payments were offered, because they were not expected to be the sole source of income, but rather a supplement to bridge the gap between the previous, large firm salary and the new small firm salary.

Very small firms were compensated through subsidies intended to help them stay in business. In contrast to the U.S., where a sizable portion of small firms are hi-tech venture capital start-ups brimming with energy and new ideas, most innovation in Japan continues to be located within the medium-sized and large firms. Very small firms operate in traditional businesses, such as weaving *tatami* (rice straw mats), operating a dry cleaning store, producing low-tech electronic parts or plastic goods (e.g., tableware), making household ceramics items or traditional food (*tōfu* etc.), as well as running

service establishments such as public bath houses, barbers and restaurants (Patrick and Rohlen, 1987).

As early as in the 1950s and 1960s, the government designed policies for these firms to compensate them for being left out of the industrial policy setup. These policies can be summarized as falling into two main categories: supportive policies in terms of cooperation, subsidies, and other direct measures; and subsidy programs administered through three special banks for small firm finance with the task of offering highly subsidized loans earmarked for projects such as "modernization", "IT upgrade", "management reform", or "environmental upgrade". The initial goal with these loans may well have been to help small firms to become competitive through subsidy programs similar to those for large firms, but over time some of these "special purpose" loans turned into a type of welfare handout. Any very small firm facing financial problems due to a recession could apply for a steeply subsidized loan for "management reform", and often these loans did not require an inspection or even a lot of paperwork (see Yabushita and Bushimata, 2002; Schaede, 2003, for details on these government banks and their programs).

A 50-year-old employee of a failing small firm, or an owner of a very small firm who faced closure of his shop, faced very limited choices. Welfare programs for structurally unemployed were highly limited, and even as of 2003, people were either unaware of these programs or unwilling to apply, given the large amount of paperwork and shame involved. The person could declare bankruptcy, sell his house to cover his debts, move in with his children, and live off his savings.[13] A second option, as mentioned, was to commit suicide so that his family would at least benefit from the life

insurance. The very small business owner, however, had a third and much more appealing option. He could receive a series of subsidized special loans from the government, which were much easier to apply for than welfare and kept the appearance of employment and the family business intact.

At one level, subsidized loans to owners of very small, traditional businesses may look like very humane solutions to the problems caused by extended recession: the government operates to keep companies alive and people employed, regardless of whether these companies are able to earn a profit. In the end, some might argue, the direct costs of handing out subsidies to firms might not be so different from the costs of handing out welfare to individual, and social costs may even be less.

However, the indirect costs of subsidized loans are huge, because the government is greatly distorting the market and limiting the reach of reform. Rather than collecting taxes from profitable entities and handing out welfare to unprofitable ones in a market-neutral way, the government participates in the market to allow unprofitable entities to raise funds through interest subsidies. This has greatly depressed Japan's interest rates and has caused more problems for the banks to return to profitability (Schaede, 2003, forthcoming).

Moreover, Prime Minister Koizumi announced large scale economic reforms in October 2002, based on a fast clean-up of the banks' bad debt, that were intended to push Japan towards more a market-orientation. Indeed, many measures were taken that looked like steps in the right direction: rigorous bank inspections, strict pushing of banks to move on their bad loans, and many more. Yet, at the same time that the government was pushing for "more market" it was asking banks to bail out failing large firms, in a move

that had little to do with market orientation. What is more, conservative politicians within the ruling party LDP pushed for exemptions from the most drastic reforms for small banks, small firms and other interest groups in their rural constituencies. As a result, almost every reform measure of the Koizumi administration was accompanied by a counter-reform intended to protect the very target of the initial reform. By 2003, Japan was chasing its own tail, running around in circles.

5. Conclusion: Whither Japan in the 21st Century?

Unless Japan can design policies and means to regain its cost and quality advantage in standard product production over China and South-East Asia – which seems quite impossible to do – it must respond to the ongoing, fundamental changes in its industrial structure and move on to the status of a post-industrial society. Continuing industrial policies that cater to manufacturers with mass production skills while ignoring the evolution of the world's and Japan's industrial structure will not solve the current problems. Likewise, just focusing in on macroeconomic issues of money supply, the tax system, or deflation without a view towards the real changes in industry structure that have caused domestic demand to be depressed is unlikely to make a positive difference.

The Japanese government has decided to begin this process with reforms, especially of banks, companies, and regulation. Yet, the effects of these reforms have been muted by allowing almost every reform measure to be accompanied by a counterbalancing quasi-welfare measure that obviates true reform. Yet, given high outstanding government debt, the welfare measures that the government can adopt are limited – mostly to having

government financial institutions offer subsidized loans to very small firms, and to having certain companies win public procurement bids to be able to continue employment.

Japan has lost its former effectiveness in restructuring because in contrast to the 1970s, when the country was ready to push industrialization based on commercialization, in 2000 the country was unprepared for the next transition. What Japan was unprepared for was an erosion of its industrial base that has affected the system of lifetime employment, and with it the logic of the country's social welfare setup. Neither has the government prepared for structural unemployment in terms of supporting the growth of a *bona fide* service society.

Other industrialized countries may face similar challenges to their existing social contracts at this critical juncture, but at least in continental Europe, the pressure comes from the opposite direction. For example, Germany has too much of a welfare cushion and is threatened to be bankrupted by the vested interests this has created.

Japan has to find its own new model. As long as METI, the manufacturing industry's mentor, continues to be the predominant ministry, while the MHLW, in charge of welfare, social security, health, and labor, produces fair-weather reports (MHLW, 2003), Japan's true challenges of the 21st challenges will remain untouched. This does not mean that Japan will necessarily remain mired in slow growth, but it will continue to lack its former punch and face increasingly severe social problems.

Social contracts are notoriously difficult to change, for political and societal reasons. In Japan's case, the biggest systemic reason is the lack of a welfare system sufficiently funded to absorb a high rate of structural unemployment that true industrial structure reform will necessarily cause. If Japan were to tackle the issue of economic

structure reform, unemployment could easily double. Already, at an official level of 5%, the incidence of poverty, homelessness, and suicides has skyrocketed. Many politicians therefore push hard to protect small firms as well as some large firms that have either many employees or many small-firm suppliers. This protection is triggered by a lack in welfare, and it is hindering reform.

The lack of a trustworthy welfare system also depresses consumption. As of 2002, the average household had savings of an estimated ¥35 million ($300,000), which is estimated as lasting for about four years for a very frugal family of three. Wives are worried that their husbands may suddenly be laid off, and therefore suppress consumption to save more. A trustworthy welfare system would alleviate the consequences of layoffs, and allow a return to normal consumption.

Thus, the most basic step towards reform in Japan is to introduce a social security system capable of cushioning the negative social effects of reform. How exactly this system should be financed is an important subject that warrants a separate paper. What is necessary at this point is the government's promise and commitment to provide welfare support – which could be funded through future revenues. In fact, this commitment already exists, as is evident in the government's generously subsidized loan programs for very small firms, the government's participation in small firm finance through public banks, and the support offered to banks that are willing to bail out "zombie" firms.

One has to take issue with the current approach of "big government", however: welfare payments, as laid out in the social contract, are best arranged "market neutral", i.e., through a transfer of wealth from the rich to the needy and from tax revenues to welfare without effecting market prices. The Japanese government, instead, is

participating in the market through low rate loan programs and loan guarantees. This approach distorts the market and has negative effects on other firms and industries. If Japan really wants to move to more market-oriented measures and reduce societal anxiety, the next challenge is to construct a social security system commensurate with an affluent society, while shifting the focus of industrial policies away from today's common products and towards 21st century industries.

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Endnotes

[1] There are many interesting reasons why Japan's consumer groups have not been able to challenge the Japanese interpretation of "public interest" as meaning "corporate interest". See Schaede (2000, Chapter 3) for an analysis of this notion of "public interest", and Maclachlan (2003) on consumer groups.

[2] Garon and Mochizuki (1993: 145) define a social contract as "a political exchange relationship between the state and social groups that is mediated by interest organizations and that establishes public-policy parameters that endure over time". In their view, one society can have several social contracts, and indeed they argue that this is Japan's story. In this paper, I think of the social contract as the sum of all of these sub-agreements.

[3] As mentioned, not all of these programs worked out exactly as intended. The government tried in vain to regulate a few industries – the case of automobiles is perhaps best-known – and some of the targeted "stars" did not work out as intended, or were not successful in the long run. For the purpose of this paper, the results of the industrial policy efforts are not important. What matters here is that through its proactive policies the government created vested interests and patterns of exchange that have become formidable obstacles to change.

[4] See Amyx (1998) for an account of the Ministry of Finance's approach to regulation.

[5] Insufficient performance was not a valid reason for a company to lay off an employee: it was the employer's responsibility to find a position within the company that corresponded to the employee's skill level (Araki, 2002). White-collar employees who did not perform adequately were promoted to a certain level (usually *kachō,* section chief) but then remained at that position until early retirement and send-off to an affiliated small firm. Because in Japanese offices, the most important person sits in the far, non-window corner, hapless employees were marginalized and seated next to the window (i.e., farthest away from the decision-makers) and came to be referred to as *"madogiwa-zoku"* (the window tribe).

[6] Calder (1993) has labeled the initial policies "strategic", and the later policies "compensatory"; see also Katz (2003) for a discussion. Some analysts have argued that industrial policies did not work, because some of the industries that received subsidies and other support measures subsequently showed below average growth rates (see, e.g., Beason and Weinstein 1996). It is important to many of those non-growing industries were recipients of "compensatory" , based on an understanding that they would be phased out.

[7] Garon and Mochizuki (1993) present a case study of how small firms crafted their own "contract" with government, thus influencing politics. In my use of the term "social contract", I am looking at how this "contract" with the small firm stacks up with other interests, and in the larger picture of Japan's social contract, small firms did not play a substantive, proactive role.

[8] While these are beyond the scope of this paper, analyses of the changes of the 1990s may also include macroeconomic studies of a changing savings rate, falling demand due to greatly reduced corporate investments, and monetary issues (e.g., Katz, 2003). Politics also deserves attention, as the LDP went through a series of changes in the 1990s (e.g., Schaede and Grimes, 2003).

[9] This was triggered by an opinion, expressed in some parts of U.S. government, that the huge trade imbalance caused by Japan's growing export surplus with the U.S. was partially driven by a misalignment of currencies, which in turn was caused by interest rate and other restrictive financial regulation in Japan. If markets were open, the argument went, then interest rates would realign and the trade imbalance disappear. This turned out to not to be the case, and the issue was furthered pushed with the Plaza Accord reached in New York in 1985. See Murphy (1996).

[10] This is not a cultural argument. First, this would apply to any country, because regulators are concerned about their reputation, and people in general care about those they have worked closely and successfully with in the past. More importantly, however, the companies also had some leverage over the bureaucracies: they could have disclosed some of the deals that had been struck in the past, be that about bailouts, vis-à-vis foreign banks, or even foreign governments. It was better altogether for the government to help their old friends, the large firms.

[11] *The Wall Street Journal*, June 18, 2003.

[12] In a way, this was the attraction of the system: after raising their children, many women in their forties re-entered the workforce in low-level jobs which earned less than full-time jobs but yielded comparatively

well given that no pension contributions were required; women would look forward to a portion of their husbands' pensions in old age. A change to the system in 2003 means that in the future part-timers have to pay in, and later will receive their own, pensions. While at first sight this may sound as a positive move towards emancipation, in reality this "reform" undermines the logic of part-time work: most women were willing to be paid less for the same work precisely because they did not have to contribute to social security. The new system means they do, but they will receive almost nothing since they re-enter the workforce so late and so low pay, and they will also not receive their husbands' payments. Thus, this "reform" is a major step backwards for part-time workers.

[13] This traditional way of solving the problem is also predicated on growth, as it only works if the children are successful lifetime employees with a stable income, which was increasingly unlikely at the turn of the century. Often, these cases fueled the growing numbers of homeless all over Japan.