Innovation and Integration: Europe's Economy Since 1945[1]

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The second half of the 20th century was a period of unparalleled growth in Europe, one which transformed the lives of its people almost beyond recognition. In 1950 many Europeans heated their houses with coal, cooled their food with ice, and relied on what we might politely call rudimentary forms of indoor plumbing. Today their lives are eased and enriched by natural-gas furnaces, electric refrigerators, microwave ovens, and electronic gadgets that boggle the mind. Over the intervening years, real gross domestic product per capita (what the output produced by the typical European resident will buy) more than tripled in the countries of the continent's west and doubled in the countries of its east. The quality of life improved even more than these crude measures of production would imply. Hours worked per year declined by more than a third, permitting an enormous increase in leisure time. Life expectancy lengthened, reflecting higher living standards and advances in medical technology. To be sure, not everything was sweetness and light. Unemployment rose over the period, and with it feelings of alienation and insecurity. Tax burdens soared, leaving many Europeans feeling that they were supporting expensive government programs from which they derived little benefit. But by any objective standard, the growth of the past half-century has left Europeans enormously better off than their parents and grandparents half a century ago.

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[1]Prepared for the Short Oxford History of Europe in the 20th Century (Mary Fulbrook, editor).

Not all parts of Europe shared equally in this prosperity, of course, and not all portions of the half-century were marked by equally rapid growth. Southern Europe grew faster than Northern Europe, Western Europe faster than Eastern Europe.[2] Growth was faster in the two decades before 1973 than the two decades after. This deterioration was most dramatic in the East, where it culminated in the crisis of central planning and the collapse of the Soviet bloc. But notwithstanding this diversity, the postwar period is rightly regarded as a golden age of economic growth.

Two exogenous conditions stimulated growth continent wide in the second half of the 20th century. One was the backlog of unexploited technological and organizational knowledge with which Europe entered the period. The two decades between World Wars I and II were a period of economic instability and crisis, but they were also decades of surprisingly rapid technological progress. While the slump of the 1930s was hardly a propitious environment for commercializing these advances, new knowledge could be stored for future use. World War II was a hothouse for technological advance, the military having to innovate to survive; it produced advances in jet engines, radar and computing, to cite only three examples. After 1945 these developments could be put to peacetime use.

The other exogenous factor shaping economic growth continent wide was the great power conflict. Countries falling for geographical and other reasons within the U.S. and Soviet spheres of influence felt strong pressure to adopt the same form of economic organization as their dominant partner. And how they organized their economies was the most

[2]Maddison, Table 2.8. Nor has this prosperity been shared equally among the regions of a given European country. A more comprehensive treatment would analyze these regional disparities; here, because the most complete data are constructed at the country level and because I focus on national economic policies, I rely on the nation as the unit of analysis.

important determinant of European societies' subsequent economic performance. The Cold War shaped that organizational choice decisively: it moved Western Europe toward market capitalism and Eastern Europe toward state socialism. The principal features of the international economic environment -- the Marshall Plan, the Bretton Woods international monetary system and the General Agreement on Tariffs and Trade -- were all molded, directly or indirectly, by the U.S.-Soviet conflict.

Together, the technological backlog and the Cold War fueled the engines that drove European economic growth over the second half of the 20th century. To these two actions there were two reactions -- two endogenous processes with which Europe responded to these stimuli. One was the transition from extensive to intensive growth. By extensive growth economists mean growing on the basis of known technologies — raising output by putting more people to work at familiar tasks, and raising labor productivity by building more factories along the lines of existing factories.[3] Intensive growth refers, in contrast, to growth through innovation. Europe relied more on extensive growth before 1973, and more on intensive growth thereafter. Extensive growth was facilitated by the backlog of technology referred to above; it was less important to innovate so long as there were known technologies still to be acquired and commercialized.[4] Extensive growth was easy so long as there were

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[3]The signature of extensive growth is a rising capital/labor ratio (see Solow 1956). There is evidence of a sharply rising capital/labor ratio in Europe up through 1970, with the capital stock growing by more than five per cent a year and employment growing by one per cent or less. See Armstrong, Glyn and Harrison (1984), chart 10.5.

[4]While it is tempting to associate intensive growth with the growth of total factor productivity (productivity not associated with increases in capital and labor inputs), extensive growth with the growth of capital and labor inputs, this would not be correct for our period. Extensive growth in Europe after World War II took place in part by acquiring and commercializing new technologies, as explained in the text. This meant that it was associated with significant increases in total factor productivity.

elastic supplies of labor — refugees from the east, repatriates from the colonies, and underemployed workers from the agricultural periphery — who could be added to the industrial labor force without putting upward pressure on wages.

Similarly, extensive growth was what planned economies organized on Soviet lines did best. The government decided how many factories to build, directed state banks to mobilize the resources, and limited consumption to what was left. It decided what foreign technologies to acquire, whether through licencing or industrial espionage. It is not surprising, then, that the centrally-planned economies of Eastern Europe performed relatively well in the age of extensive growth.

The more successfully European countries pursued this model, the more quickly they exhausted the backlog of technological and organizational knowledge. And as that backlog was exhausted, they were forced to switch to intensive, innovation-based growth. The centrally-planned economies were least good at innovation, since new knowledge bubbled up from below instead of raining down from above. More than any other activity, it responded to incentives, something which in the planned economies was in short supply. This weakness came back to haunt them once the technological pantry was bare, the labor force was fully employed, and a premium was placed on innovation.

The second endogenous process shaping postwar growth was European integration. While this trend is related to the wider process of "globalization," its particular manifestation in Europe was unique. There, integration has meant regional integration, and the process has been driven more by policy and less by technology than in other parts of the world. The progress of European integration mirrored the great power conflict: the United States encouraged its Western European allies to cultivate closer economic and political ties, while

the Soviet Union prohibited the participation of Eastern European countries that may have been tempted to collaborate in Western integration initiatives. European integration reflected the transition from extensive to intensive growth insofar as the Single European Act of 1986 and the Maastricht Treaty of 1991 could be seen as responses to the growth and unemployment problems of the late 20th century.

Western Europe was at the heart of the global trade and financial system before 1913. But as the main theater of World War I, its foreign trade and finance were disrupted by the end of the long 19th century peace. The Bolshevik Revolution and the creation by the Treaty of Versailles of new nations in Central and Eastern Europe further disrupted the continent's commercial and financial relations. So did World War II. Thus, Europe had to rebuild its international economic position following the second war from an unfavorable starting point. Its progress was remarkable. Starting with the European Payments Union and the European Coal and Steel Community, the principal Western European states created the European Economic Community (now European Union), which revolutionized the relations of Europe's national economies with one another and the rest of the world. Trade within Europe is now substantially free of tariff and nontariff barriers; intra-EU trade accounts for some two-thirds of the international transactions of the member states, up from 40 per cent four decades ago. Financial transactions are also free, as is labor mobility. Monetary union is the capstone on this process. While the Eastern European countries under the influence of the Soviet Union took a long detour from this route, participating in a rival trade bloc (the Council of Mutual Economic Assistance, or CMEA), they are now anxious to join the European Union as soon it will have them. How European integration is affecting the prospects for growth is, for all these reasons, the question of the day.

The remainder of this chapter seeks to elaborate these themes. Section 1 provides an overview of postwar economic trends. Section 2 describes the initial conditions: the state of Europe after World War II. Sections 3 and 4 contrast the periods of extensive and intensive growth. Section 5, in concluding, provides a reconnaissance of the European economy at century's end.

1. Overview

An eagle-eye's view of Europe's growth since 1950 appears in Table 1. The top panel displays figures for the rate of growth of gross domestic product (GDP) over various sub-periods. Between 1950 and 1975, the 12 Western European economies[5] for which consistent data are available grew more than twice as fast — at an annual average compound rate of 4.7 per cent — as over the more than a century and a half since 1820. Thus, what is referred to in the introduction as the golden age of economic growth stands out clearly. The second sub-period from 1973 through 1992, in contrast, is rather typical: Western Europe's growth averaged 2.2 per cent per annum over both that sub-period and the entire 172 years since 1820. But leaving aside the golden age, only in 1870-1913, the last period of marked internationalization, when the growth of foreign trade, foreign investment and international migration all outstripped the growth of production, did growth rates in Western Europe also reach the 1820-1992 average.

[5]Austria, Belgium, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Sweden, Switzerland and the UK. This group could also be referred to as Northern Europe but for the inclusion of Italy.

The same fluctuations are evident in Southern Europe,[6] although the pattern of acceleration and deceleration is if anything more dramatic. Growth is fully three times as fast in 1950-73 as over the longer period. While Southern Europe experienced a post-1973 slowdown like Europe as a whole, growth is still 50 per cent faster in 1973-92 than the period average. Even more than in Western Europe, the second half of the 20th century stands out as distinctive.

Growth in Eastern Europe[7] also accelerates after 1950 and decelerates after 1973, but the experience of that part of the continent is distinctive. Output rises at the same rate (4.7 per cent per annum) as in Western Europe in the years of extensive growth, but the absolute increase relative to the period average is faster in the East than the West, reflecting the eastern economies' tendency to lag the West in the 19th century. Growth grinds to a halt after 1973, a shift evident in no other region.[8]

The bottom panel of Table 1 shows comparable figures for per capita GDP growth (a better measure of the change in living standards), obtained by subtracting the rate of growth of population from the rate of growth of output. Western Europe compares more favorably with other regions on this basis, since it had the lowest rates of population growth.

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[6]Greece, Portugal, Spain, Turkey and (following Maddison, who groups economies as much by their initial economic structure — importance of agriculture and initial income — as by proximity to the Equator) Ireland.

[7]Defined here to include Bulgaria, Czechoslovakia, Hungary, Poland, Romania, Yugoslavia and the USSR.

[8]These post-World War II estimates for Eastern Europe should be regarded skeptically. For reasons discussed below they may give a distorted picture of the region's progress.

Table 2 arrays comparable figures for individual countries. Of our 12 Western European economies, extensive growth was fastest in Germany, Austria and Italy, reflecting the postwar growth miracle, or *Wirtschaftswunder* in Germany, Austria's economic and geographic proximity to its larger neighbor, and Northern Italy's success in catching up with the continent's high-income regions. It was slowest in the United Kingdom, a problem which by the 1970s had given rise to a literature on the country's "economic failure." After 1973 the U.K. continued to underperform the Western European average (with exceptionally poor performance in the 1970s dominating better performance in the 1980s), but it was no longer alone; for the period of intensive growth (1973-92) as a whole, performance as measured by the change in per capita income was even worse in Switzerland and Sweden and equally bad in the Netherlands.

In Southern Europe, the golden age was brightest in Greece and Iberia, least so in Turkey and Ireland (the Emerald Isle often being conferred honorary membership in this group). The post-1973 slowdown, on the other hand, was least dramatic in these last two countries. Indeed, Ireland and Turkey were the best performers in Southern Europe in the years of intensive growth.

Growth of output per capita was relatively uniform in Eastern Europe, reflecting the heavy hand of planning. In the years of extensive growth, it was slowest in those countries that started out with the highest levels of output per person (Czechoslovakia and the USSR), and fastest where initial output was lowest (Bulgaria, Romania and Yugoslavia). This suggests that central planning and state trading were powerful engines for technological and organizational convergence. Strong uniformity is also evident after 1973, despite the

somewhat divergent reform programs of the different planned economies. Not only is the growth slowdown pronounced, but stagnation is regionwide.

These, then, are the facts to be explained. Explanation necessarily starts at the start, with conditions at the end of World War II.

2. Initial Conditions

World War II was immensely destructive. It destroyed not just economic capacity — as persons perished, factories and farms were reduced to rubble, and roads and bridges were laid to waste — but economic relations as well.

The Task of Reconstruction

The destruction of capacity was clear to the naked eye. Lecerf (1963) provides the following inventory for France: 115 railroad stations damaged or destroyed; 9,000 of 12,000 locomotives unusable; all major canals, riverways, and ports unnavigable; nine of ten motor vehicles out of commission. But while this destruction was serious, much of it could be made good in short order. The results were not always beautiful, but they were functional; the speed with which physical damage could be reversed was a lesson of Allied experience with strategic bombing, whose impact on the Germany economy had been less than anticipated. The same was true of roads, railways, ports and even factories; critical damage could be repaired relatively quickly. The housing stock took longer to replace but was less essential to the immediate resumption of economic activity.

Less visible but more fundamentally disruptive was the interruption of normal modes of economic organization. The price system that had traditionally guided the allocation of

resources was superseded by rationing and controls. In the environment of shortage that prevailed at war's end, the controls were retained. They were used to direct labor and raw materials as a way of ensuring the production of critical commodities. Wages were frozen, and workers were permitted to take only jobs advertized by official labor offices as a way of guiding manpower to priority uses. To prevent price gouging, governments froze the prices of essential consumer goods like food, fuel and clothing, and rationed purchases. They regulated the lending and investment activities of the banks and forced them to absorb the public sector's emissions of debt. To prevent excess liquidity from spilling over into imports of luxury items and exhausting the central bank's hard-currency reserves, commodity imports and capital exports were controlled. Barter and monetary exchange never disappeared, but they were limited to the black market.

At the conclusion of hostilities, industrial production was no more than 40 per cent of prewar levels in Belgium, France and the Netherlands and less than 20 per cent of those levels in Germany and Italy. From this initial position it was possible to boost output quickly by restoring essential infrastructure and freeing resources for peacetime use. As early as 1947, industrial production continent wide had risen to 87 of 1938 levels. It exceeded 100 per cent of those levels if one excludes the western zones of occupied Germany. (See Table 3). Agricultural output, while slower to recover, had still reached 80 per cent of prewar levels by 1947-48.

The Transition to Sustained Growth

This was the easy part, achieved by repairing superficial damage and putting idle resources back to work. The more difficult task was to render growth self-sustaining. Here

three related obstacles stood in the way: resource bottlenecks, price controls, and political uncertainty.

A lesson widely drawn from the war was the importance of fixed investment, and industrial investment in particular. The Allies and the Nazis had engaged in a deadly industrial competition, with progress gauged in terms of tons of iron and steel and numbers of tanks, ships and airplanes produced. The United States tipped the strategic balance by bringing to bear its own formidable industrial capacity. Restoring economic vitality after the war consequently came to be seen as the task of repairing industrial capacity and industrial competitiveness.[9] "The psychology of 1945" attached priority to growth, and specifically to industrial growth.[10]

Recovery for the first several postwar years was thus driven by public spending on the repair and expansion of industrial capacity. Priority was given on both competitiveness and national-security grounds to expanding the capacity of heavy industries like iron and steel. Thus, the Monnet Plan, the ambitious modernization program rolled out by the French government in 1947, emphasized investment in transport, energy, and iron and steel.[11] But by then these ambitions had run up against feasibility constraints.[12] Governments sought to expand not just output but capacity; they directed public-sector funds and bank loans toward

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[9]And continued economic development was portrayed in terms synonymous with capital formation in general and industrial capital formation in particular. See Lewis (1954) for an influential contemporary statement of this view.

[10]The term is from Adams (1989), p. 47.

[11]These investment plans were implemented mainly through the provision of public funds under favorable conditions from budgetary accounts like the Modernization and Equipment Fund.

[12]As emphasized by Milward (1984).

industrial investment, the derived demands from which were supposed to percolate down from the “industrial high ground” to the rest of the economy. The problem was that Europe itself produced only limited quantities of the capital goods that were necessary inputs into this process. This was especially so as long as the occupying powers limited German industrial production, that country having traditionally been a major producer and exporter of capital goods.

Industrial inputs could still be purchased from the United States, but only for dollars. And by 1947 Europe had exhausted its dollar reserves. Merchandise exports could finance imported inputs only to a limited extent, since the imported inputs had to come first. And borrowing abroad was infeasible, given the uncertain political situation and the disastrous legacy of interwar loans.

The second obstacle to sustained growth was the price controls themselves. So long as the prices of consumer goods were frozen below free-market levels, producers had little incentive to bring their goods to market. Farmers stored their grain rather than marketing it. They fattened their cows instead of slaughtering them. Workers, unable to purchase consumer goods, spent their time not at their place of work but cultivating garden plots and foraging in the countryside. The problem worsened as governments ran deficits and printed money, widening the gap between black-market and controlled prices. Officials resorted to threats against those suspected of hoarding. The Ramadier Government in France, for example, attacked speculators, those traditional French bugbears, for withholding stocks, but to no avail.

The solution — decontrolling prices and allowing the market to operate — was straightforward in principle but difficult in practice. So long as budgets remained in deficit and

governments printed money to bridge the revenue gap, decontrol implied inflation. This made tax increases and expenditure reductions preconditions for price decontrol. And in the fractious postwar political environment, no consensus prevailed on the composition of the requisite adjustments.

This points to the third and final obstacle to sustained growth, namely, policy uncertainty. Communists occupied key positions in the Italian and French governments in 1947. In Denmark, the Communist Party had similarly proven popular in the first postwar elections, but the Social Democrats refused to govern with it, leading to a weak minority government incapable of implementing a stabilization. The British Government, which included Labourites of radical persuasion, had embarked on an ambitious program of industrial nationalization. In Germany, the single largest political party, the Social Democrats, advocated the socialization of industry and the maintenance of controls. Further uncertainty emanated from the policies of the Allied occupiers, whose goals included limiting industrial production, dismantling factories, and breaking up cartels and large enterprises.[13] It was not clear that governments in any of these countries would respect private property, resist the temptation to impose confiscatory taxes, and let markets work.

This uncertainty increased the value of waiting. Entrepreneurs held off investing until they learned more about the status of private property. Individuals hesitated to purchase securities, not knowing whether their dividends would be taxed away. Banks hesitated to lend, not knowing whether their principal would be inflated away. Workers hesitated to invest in training and skills until they knew more about the structure of pay and employment.

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[13]And in the British zone, fostering the same nationalization of industry that the Labour Government was seeking to advance at home.

The Role of the Marshall Plan

The Marshall Plan, the ambitious aid initiative launched by the United States in 1947, removed all of these obstacles simultaneously. By providing $13 billion of U.S. government grants over a period of four years, it relaxed the balance-of-payments constraint on European growth. $13 billion may have been only two-thirds of the payments deficits forecast by the participating countries at their July 1947 meeting in Paris, but those forecasts were inflated to maximize negotiating leverage. In fact, U.S. aid substantially filled the gap. Europe's trade deficit was $11.5 billion from 1948 through 1950, a period over which U.S. grants were $10 billion. The Marshall Plan thus unraveled the gordian knot of having to first export in order to import but being unable to import with first exporting. Europe's strategy of investment-led growth was sustained.

In addition, the Marshall Plan provided powerful incentives to embrace the market. Countries accepting Marshall aid had to sign bilateral pacts with the United States agreeing to decontrol prices, stabilize their exchange rates, and balance their budgets. In other words, they had to put in place the prerequisites for a functioning market economy. The U.S. made the disbursal of Marshall aid conditional on progress toward these goals.[14] The plan thus helped to resolve political uncertainty by tipping the balance of political power toward centrist parties. U.S. officials made clear their reluctance to favor socialist governments with Marshall aid. The Marshall Plan thus strengthened the hand of mainstream politicians who could point to the loss of U.S. grants as an additional cost of opposing their programs. In both France and Italy,

[14]Although the credibility of its threat to withhold aid from the slackers was less than complete. A critical analysis of Marshall Plan conditionality, which questions its effectiveness, is Esposito (1994).

the announcement of the Marshall Plan was accompanied by the exit of Communist ministers from the governing coalition. In Denmark it was followed by a major setback for the Communists in the October 1947 elections.

In a sense, the Marshall Plan defined the conflict between East and West as the choice between plan and market. The Soviet Union was invited to participate, although there is reason to question the sincerity of the offer. In any case, Moscow refused on the grounds that no foreign power should be able to instruct it how to run its economy. Czechoslovakia and Poland attempted to accept the U.S. invitation but were overruled by Stalin, who instead placed their economies more firmly under his thumb.

In the West, the effects of price decontrol were immediate. Stores empty one day were fully stocked the next as goods flooded out of hoards and into the market. Now that workers had goods to buy, absenteeism fell. The supply of materials from mines and farms provided industry with the inputs needed to restart production. As budget deficits were cut and monetary printing presses slowed, external disequilibria were reduced. It became possible to lift import restrictions and to more fully exploit comparative advantage in international markets.

A final effect of the Marshall Plan was to encourage European integration. U.S. aid was contingent upon the recipients' willingness to formulate a collective strategy for utilizing the funds. In their more idealistic moments the Marshall Planners saw their initiative as encouraging the formation of a "United States of Europe," in which war would be inconceivable. More realistically, European integration was a way of reconciling other countries, France in particular, to higher levels of German industrial production and of disarming those, including influential voices in the U.S. government, who insisted on

"pastoralizing" the German economy. By locking Germany into Europe and promoting the development of institutions of transnational governance, the Marshall Plan permitted Paris to agree to the elimination of ceilings on German industrial production. By substituting American aid, it encouraged the French and other victors to drop their claims to German reparations. These concessions were essential to the success of Germany's 1948 monetary reform, under which the monetary overhang was eliminated, debts were canceled, and goods flooded back to the shops. Had production ceilings and reparations remained in place, these measures would not have succeeded in restoring the incentive to produce and in igniting a dramatic increase in output. But with these obstacles removed, the *Wirtschaftswunder* could get underway. Since Germany was at the heart of the European economy, that heart could now beat more strongly. The geopolitical threat from the East could be repelled by the return of prosperity.[15]

The integrationist strand of U.S. policy fed powerful predispositions in Europe. European intellectuals had long seen a European federation or parliament as a solution to the region's political and diplomatic conflicts. In the 1920s and 1930s, the Pan-European Union founded by Count Richard Coundenhove-Kalergi had lobbied for a European federation. Among its members were the young Konrad Adenauer and Georges Pompidou. British reservations notwithstanding, the Marshall Plan's integrationist seed fell on fertile soil.[16] And this integrationist turn was one of the most profound developments affecting Europe in the 1950s and indeed for the remainder of the 20th century.

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[15]For two statements of this argument see Gimbel (1976) and Berger and Ritschl (1995).

[16]Thus, British government leaders like the foreign secretary, Ernest Bevin, while they responded with alacrity to the U.S. offer of aid, were dismayed by the program's integrationist component. See Newton (1985).

3. The Age of Extensive Growth

The emphasis the Marshall Planners placed on European integration had an economic as well as political rationale, namely, as a means of stimulating Europe's trade. Before 1950 the economies of Western Europe were suffocating under a stifling blanket of trade restrictions. To husband their precious hard currency for purchases from the dollar area, each country sought to restrict its imports from each other country to the value of receipts in its currency. Governments drew up lists of commodities for which they were prepared to issue import licenses up to agreed limits. Under these restrictive arrangements, intra-European trade was little more than two-thirds of prewar levels in the first half of 1948, by which time the volume of Europe's exports to other continents had already surpassed 1938 volumes. Imports from other European countries, as a share of the continent's total imports, fell from 55 per cent in 1938 to a mere 37 per cent in 1947 (that is, even before imports from outside Europe received a boost from the Marshall Plan).

In the immediate postwar years, when the alternative to bilateralism was autarchy, bilateral agreements made sense. Some trade was better than no trade. "In the period immediately following the war, bilateral agreements permitted the rapid rebuilding of trade relations," as a team of United Nations experts put it.[17] But bilateral agreements, once in place, made it more difficult to take the next step toward placing Europe's trade on a free-market basis. This required allowing payments to be settled multilaterally (for Britain's exports to France to be used to finance its purchases from Belgium, for example). But no one country could take this step alone. If one offered to liberalize its trade but the others failed to follow, the first country would see its market flooded with imports but still lack access for its

[17]United Nations (1950), p.98.

exports, a combination with dire implications for the balance of payments. Britain's abortive attempt to make the pound sterling convertible for current account transactions in 1947 (as required by the Americans under the terms of their $3.75 billion pre-Marshall Plan loan) had to be reversed after only five weeks of disastrous reserve losses, illustrating the infeasibility of unilateral action.

Liberalizing and multilateralizing Europe's trade required all European countries to move simultaneously. But the First Agreement on Multilateral Monetary Cooperation of 1947 and the (Second) Agreement for Intra-European Payments and Compensations of 1948, their first two attempts to do so, produced few concrete results. With inflation running rampant in France and Greece and the prospect of accelerating inflation in Germany and Austria once prices there were decontrolled, surplus countries were reluctant to agree to a multilateral clearing mechanism with credits for deficits for fear that inflation- and deficit-prone participants would immediately absorb whatever credits were collectively offered. Bilateralism did not provoke a crisis so long as Marshall aid could be used to finance intra-European trade imbalances as well as imbalances vis-à-vis the dollar area. But by the close of 1949, the end of the Marshall Plan was in sight. This produced a new sense of urgency and new negotiations.

The European Payments Union and First Steps Toward Collective Governance

The result was the European Payments Union (EPU). The EPU was initially conceived as a two-year transitional arrangement at the end of which the participating countries would restore convertibility for transactions in goods and services. In the event, the transition proved more difficult than anticipated, and the EPU continued to provide the structure for intra-European trade for nearly a decade. Under its provisions, each country's net balances with

each other country were reported at the end of each month to the Bank for International Settlements, the EPU's fiscal agent, which canceled offsetting claims. Remaining balances were consolidated, leaving each country with liabilities or claims not on other countries but on the EPU as a whole. Hence, governments no longer cared with which other European country trade was conducted; all that mattered was the balance of debits and credits vis-à-vis the entire group. Moreover, EPU membership entitled a participating country to credits from its partners, with which it could finance temporary trade deficits. Thus, not only did the EPU remove the need for countries to balance their trade with each other country, but it allowed countries to run temporary deficits vis-à-vis participating countries as a whole. The U.S. contributed toward the EPU's operation with $350 million of Marshall Plan funds. The problem of coordinating the transition to current account convertibility was solved by requiring members to accept the OEEC's Code of Liberalization, a second, simultaneous agreement under which they agreed to removing import controls at a predetermined pace.

This initiative did much to grease the wheels. Intra-European trade rose from $10 billion in 1950 to $23 billion in 1959, growing significantly faster than output. It spurted ahead in 1950-51, coincident with the creation of the EPU. While much of that surge reflected the experience of one country, Germany, here too the EPU was critical. Tied as it was to the Marshall Plan, the EPU provided other countries the reassurance they needed that Germany would use its economic power benignly and that it would not renege on its commitment to free and open trade. More concretely, the EPU helped Germany to surmount its 1950-51 balance-of-payments crisis. The outbreak of the Korean War drove up the prices of the primary commodities Germany imported, aggravating the country's external deficit and creating pressure for it to reverse recent trade-liberalization measures. The EPU Managing

Board provided extraordinary credits to bridge the gap and sent experts whose recommendations of temporary tax and discount rate increases lent those policies political legitimacy. With these measures in place, restrictions on German imports were both mild and short lived.

Even more importantly, the EPU was a stepping stone toward collective governance. Its Managing Board reported to the Council of the OEEC. Its members "served as individuals performing a collective function, rather than as government representatives."[18] The decision to extend extraordinary credits or grant a country permission to depart from the Code of Liberalization had to be decided collectively.

The next move toward collective governance, the European Coal and Steel Community (ECSC), was an even more momentous step. The motivating issue was the same — permitting the German iron and steel industry to expand without exciting fears that the country would rebuild its military-industrial complex. The solution was to establish a Joint High Authority to provide transnational oversight of national investment plans for coal and steel. "Membership required transference of sovereign powers to a new European authority," in the words of the Community's historian.[19] While it was intended as a vehicle for creating a free trade area in the products of the coal and steel industries, in practice trade was fettered by subsidies and voluntary export restraints. Intended as a means of rationalizing production, the ECSC in fact served to prop up inefficient producers. But its administrative structure was more significant than its substantive accomplishments. In addition to the High Authority, the treaty instituting the Coal and Steel Community provided for a Common Assembly as a forum

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[18]In the words of the EPU's historians, Kaplan and Schleiminger (1989).

[19]Gillingham (1992), p.151.

for discussion and a High Court as an advocate for the High Authority vis-à-vis the contracting states, planting the seeds for the European Parliament and the European Court of Law. In these structures and not just in the fact that the contracting states became the six founding members of the European Economic Community lay the true significance of the ECSC.

Investment and the Labor Market

If trade was one of the engines of European growth, investment was the other. New technology, to find commercial use, had to be embodied in plant and equipment. That required investment. Gross investment averaged 22 per cent of income from 1949 to 1958, an increase of a quarter and more from the interwar years.[20] Governments kept interest rates low and regulated the financial system to channel resources toward investment. But countries varied enormously in the efficiency with which they utilized investable funds. In Germany, on the one hand, an additional 3 percentage points of national income devoted to investment generated a full percentage point of additional growth. In Norway, on the other hand, an additional percentage point of growth required an additional 9 percentage points of output devoted to investment, in Ireland nearly 14 percentage points! West Germany, of course, had been late to initiate the reconstruction of its industrial sector (due in part to the Allied controls described above), and experienced a flood of immigrants from the East (some three million from 1950 until the Berlin Wall was finally erected in 1961); for both reasons a little investment

[20]These estimates are for 21 European countries. They come from United Nations (1964), as do all the statistics that follow on economic growth in the 1950s (except where explicitly noted otherwise). Maddison (1976) calculates net fixed investment rates for Western Europe, estimating these as 9.6 per cent in 1928-38 and 16.8 per cent in 1950-70.

translated into a lot of growth. Norway, in contrast, devoted a disproportionate share of investment to projects like electrifying the north, an undertaking important more for political than economic reasons and one with little immediate payoff in terms of growth. In Belgium, the efficiency of investment was depressed by an ill-conceived government program of "defensive investment" which channeled resources toward declining industries in a futile effort to restore their competitiveness.[21]

More generally, all of the countries with high returns on investment experienced high rates of growth of the labor force, excepting Portugal and Spain which started out well below average levels of industrial efficiency. Conversely, the countries with the lowest returns on investment, notably Ireland, Norway, Sweden, the United Kingdom and Finland, all had slowly expanding labor supplies.[22] This points to the importance of the labor market as a determinant of the efficiency and level of investment. The payoff on investment was high where there was an expanding labor force with which the additional capital could be put to work. A further advantage of a growing labor supply was that upward pressure on wages was mild. The absence of pressure on labor costs allowed firms additional profits to be plowed back into investment.

In part the mechanism was the classic one of supply and demand.[23] So long as refugees from the GDR flooded into West Germany, there was a reserve army of labor to be employed. German unemployment remained in the low double digits until this influx was absorbed in the later 1950s; it is no surprise that wage pressure was moderate under these circumstances. The

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[21]As described by Lamfalussy (1961).

[22]France is an anomalous case, where labor force growth was slow but productivity rose surprisingly rapidly. We return to its case below.

[23]This is the mechanism emphasized by Kaldor (1966) and Kindleberger (1967).

same mechanism operated in the Netherlands with the return of Dutch settlers from the East Indies (300,000 of whom represented seven per cent of the labor force), and in Switzerland with the import of guest workers from Southern Europe. It operated in France and Italy with the migration of underemployed labor from agriculture to manufacturing and services, relieving supply-side pressure on the tertiary sector.[24] Wage moderation was encouraged by these elastic supplies of labor.

The Postwar Social Contract

But more than the laws of supply and demand explain the wage moderation of the postwar years. In addition, European societies developed corporatist structures to restrain wage growth and see that profits were plowed into investment.[25] The interwar period -- even the years of high unemployment in the 1930s -- had been marked by violent strikes and disputes over wages and work conditions. Institutions were developed after World War II to prevent a repetition of this conflict. Postwar governments asked unions to limit their wage demands to make profits available for modernization and capacity expansion. The problem was guaranteeing that industrialists would in fact invest the profits they received. Skeptical that self-denial would produce more investment, faster growth and higher living standards, labor hesitated to make the requisite sacrifices. The danger was that unions would pursue wage increases, management would pay out profits, and investment and growth would suffer, as in the interwar years.

[24]Italian unemployment was still nine per cent in 1954, before declining to half that level by the end of the 'fifties.

[25]This argument is drawn from Eichengreen (1996), to which the reader is referred for further details. A critical response is Booth, Melling and Dartmann (1997).

Cooperation between capital and labor was cemented by a series of institutional bargains, some informal, some codified in law. One set of institutions monitored the compliance of the parties to their agreement to exchange wage moderation for the reinvestment of profits. Workers were allowed to monitor management decisions related to investment. German co-determination, giving labor oversight of firms' investment policies, is an example of this mechanism. By the late 1950s more than 100 large firms had labor representatives on their supervisory boards as a result of the operation of the Co-determination Law. Works councils (required in shops with as few as five employees) played a similar information-disseminating role in small firms not covered by the law. In the Netherlands, representatives of labor, management and government worked together on PBOs (*Publiek Rechtelijke Bedrijfsorganisatie*), hammering out agreements regarding the employment and investment policies of Dutch firms. Norway established planning councils and production committees to promote worker participation in management decisions. Union and industry representatives sat together on the boards of Belgian public and semi-public enterprises under the provisions of the 1948 Law on the Organization of Industry. Even in France, where labor relations were hardly smooth, labor-management committees were required by law for all enterprises employing 50 or more workers. Representatives were entitled to attend meetings of the board and served as conduits for information about the investment policies of the enterprise. A 1946 Act required management to inform the committee and receive its opinion before finalizing investment decisions and (in the case of limited liability companies) to inform it of the profits made by the undertaking and permit it to audit the books. Labor was thereby reassured that capital was keeping to its bargain to invest the fruits of its prior wage restraint.

A second set of institutions created “bonds” that would be lost in the event that either party reneged on its agreement. Here government played a prominent role. In Austria, firms were promised industrial inputs at submarket prices from public enterprises in return for following cooperative investment and dividend policies. The Swedish government regulated the payment of dividends by public companies and invited corporations to place up to 40 per cent of their profits into closed public accounts, to be released only with government approval. Central banks helped to cement the corporatist bargain by pursuing investment-friendly monetary policies that encouraged firms to follow through on their commitment to invest.

A parallel set of government programs bonded labor. In Belgium, the first postwar government adopted a social security scheme in return for labor’s adherence to the 1944 Social Pact limiting wage increases. The Norwegian government offered legislation mandating paid vacations and limiting the length of the work week in return for wage restraint. The Danish government offered an expanded system of sick pay in 1956, when the agreement to link wage increases to productivity negotiated during the reconstruction phase showed signs of breaking down.[26] The German government indexed retirement incomes to living standards in its 1957 pension reform. The Austrian government extended tax and social insurance concessions to labor in return for wage moderation.

A third set of institutions coordinated bargains across firms and sectors. Coordination was necessary to solve problems of collective action insofar as wage moderation in one sector increased the profits available for investment economy wide, benefitting capital and labor in other sectors. Bargaining was centralized in the hands of a trade union federation and national

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[26]Johansen (1987), chapter 7. Old age pensions followed in 1957.

employers' association, and governments intervened to harmonize the terms of the bargains reached by different unions and employers. All this was a departure from the more laissez-faire arrangements of the 1920s and 1930s, but, Europe's postwar corporatist institutions were not created out of thin air; for some decades there had been movement in this direction. During World War I, government had brought together unions and management to negotiate economy-wide wage agreements and avert work stoppages. The consequent increase in the leverage of labor organizations proved difficult to roll back after the war. In the interwar years the Stinnes-Legien Agreement in Germany, the Saltsjobaden Agreement in Sweden, Norway's Basic Agreement of 1935, Switzerland's Peace Agreement of 1937, and Popular Front policies in France all had proto-corporatist elements. An extreme case was the state corporatism (centralized negotiations under government control) relied upon by Mussolini and Hitler's governments to regulate their labor markets. Fascist governments encouraged the centralization of wage negotiations under a few large unions in order to strengthen their own control. The occupying powers, finding these structures convenient to their own efforts to regulate the labor market, hesitated to dismantle them after the war. On the other side of the battle lines, capital and labor had been encouraged to collaborate to beat back the Nazi threat.[27] For all these reasons, crisis bred corporatism.

Wartime crises elicited this response because of the existence of powerful collectivist predispositions. Building institutions to free Europe's citizens from the tyranny of the market was encouraged by 19th century Roman Catholic theology and 20th century Christian

[27]As emphasized by Maier (1981) and greatly elaborated in Grant, Nekkers and Waarden (1991).

Democratic ideology.[28] It became a goal of the Socialist and working-class parties whose influence expanded dramatically after World War II. Further encouragement was lent by the American administrators of the Marshall Plan, who had seen their own economy turn in a corporatist direction under the National Industrial Recovery Act.[29] And the desirability of relying less on the market and more on government and on extra-market cooperation was the general lesson drawn from the collapse of the market economy in the 1930s. All this made for a receptive climate for corporatist initiatives.[30]

The Dawn of the Golden Age

Table 4 summarizes the performance of the economies of Western Europe in the 1950s, decomposing the growth of production into the contributions of capital, labor and technological progress.[31] Countries are ranked by their rate of output growth. Germany's position at the top of the league results from the unusually rapid rate of growth of inputs (faster than in any other country considered), reflecting exceptionally fast growth of the labor supply and unusually high investment rates, but also reflects the country's unusually rapid

[28]As explained by Polanyi (1944).

[29]Even if that trend was ultimately rolled back during the post-World War II period.

[30]Therborn (1992) suggests that corporatism developed hand in hand with the growth of Germanic-type trade unions, which possess a social vision as opposed to a preoccupation with class conflict. To this may be added Lijphart's (1977) argument that corporatist institutions were easiest to install and operate where cross-cutting ethnic, linguistic and religious divisions confused traditional lines of class conflict. In addition, Katzenstein (1985) argues that democratic corporatism found its firmest foothold in small, open economies most vulnerable to economic disruption, whose small size encouraged a "we're-all-in-the-same-boat" mentality.

[31]Based on a Cobb-Douglas production function with a coefficient of 0.7 for the labor force.

growth of productivity (again, the fastest of any country). Technological progress is also rapid in Italy, reflecting that country's success at closing the gap vis-à-vis Europe's high-income countries. Britain's poor performance is seen to have resulted from both low investment rates and disappointing productivity growth. France stands out for the stagnation of its labor force. While French policymakers were much concerned about "Malthusianism," whose implications may have included the country's relatively low level of investment (since additions to the capital stock had a more slowly growing labor force with which to cooperate), the country's impressive productivity performance (behind only that of Germany and Italy) sustained more-than-respectable rates of output growth.

The average European worker was only half as productive in agriculture as industry. The principal exceptions were the U.K., where more than a century of free trade had forced farmers to rationalize their operations, and the Benelux countries, which specialized in high-value-added dairy and truck farming. Part of the explanation for the rapid productivity growth rates of the 1950s was thus the shift of employment from low-productivity agriculture to high-productivity manufacturing and services. The share of employment in agriculture fell by 9 percentage points in Germany, 8 points in Italy and 7 points in Norway.[32] While farmers were a powerful lobby and government protected their interests, the agricultural sector was still allowed to contract in relative terms as a necessary concomitant of the postwar productivity miracle.

Eastern Europe and the Planned Economy

[32]Here again the U.K. was the exception. It having already largely completed the process of agricultural labor shedding, the share of employment in agriculture declined by only 1 percentage point over the course of the decade.

Eastern Europe was even more heavily agricultural. Only one country, East Germany, had a larger share of its labor force in industry than agriculture. This, together with a Western-style productivity gap between manufacturing and farming, helps to account for the East's relatively low per capita incomes at the start of the period. State Planning Offices saw the expansion of the industry as the most direct way of raising labor productivity (and of advancing their countries' geopolitical goals). Consequently, Eastern European agriculture did not receive government support comparable to that enjoyed by the farmers of the West. To the contrary: planners in the East set artificially low prices for agricultural goods, artificially high ones for manufactures; together with differences in output per worker, these distortions caused the output of the typical industrial worker to be valued at three times that of his agricultural counterpart. This skewed price structure signaled the desire of the planners to encourage industry relative to agriculture. In Hungary, Poland and Bulgaria, the entire increase in labor supply over the course of the 1950s went into sectors other than agriculture. In East Germany and Czechoslovakia, the structural shift was even more pronounced, with agricultural employment declining by 20 per cent.[33] Conventional estimates suggest that structural change (the shift of resources out of agriculture and into industry and services) accounted for a larger share of productivity growth in Eastern than Western Europe.[34]

Eastern European governments reported impressive rates of growth of net material product in the 'fifties, on the order of 8 per cent in Hungary and Poland and 11 per cent in Bulgaria, even higher than the growth rates associated with the West German

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[33]Most of the absorption of peasants into nonagricultural employment was concentrated in the early postwar years; the process slowed in the second half of the decade. While much of the reallocation of labor was in the direction of industry, the service sector expanded as well, although it remained stunted by Western European standards.

[34]United Nations (1964), chapter III.

Wirtschaftswunder. Not everything that was produced was of good quality, of course. The estimation of net material product was also subject to valuation problems due to the price distortions described above. And neither voters nor financial markets could punish governments for exaggerating the rate of growth of net material product. These are all reasons for taking the published statistics with a grain of salt.

For what they are worth, those statistics point to investment as the engine of growth. Investment rates were not high by Western European standards — if anything the opposite was the case. But the rate of growth of the capital stock was rapid, reflecting the low level from which it started. Even more than in the West, this was the heyday of extensive growth -- growth driven by investment.[35] Priority was given to heavy industry and to the production of capital goods, especially after east-west tensions mounted with the outbreak of the Korean War. This meant increasing the production of coal, iron and steel by expanding capacity along well-established lines.

By 1949 most major branches of industry and finance were owned and operated by the state. The first five year plans were introduced in 1949-51.[36] The majority of investment was allocated to industry. More factories were built along the lines of existing factories. More workers were assigned to established tasks. A premium was placed on applying existing technologies and replicating existing facilities, not on innovation. "Economic growth became dependent, as one set of authors put it, "on a fix of ever greater inputs of labour and capital."[37]

[35]As emphasized by Weitzman (1970, 1983).

[36]Yugoslavia, which had already broken with the Soviet camp, adopted its in 1947.

[37]Aldcroft and Morewood (1995), p.106.

Achievements and Limitations of Central Planning

The results were superficially impressive, but already in the 1950s there was trouble beneath the surface. While the region's endowment of skilled labor and the available backlog of proven technology provided obvious scope for increasing industrial production, Cold War imperatives and Stalinist ideology (according to which growth meant industrial growth) led planners to push the process too far. Central and Eastern Europe had traditionally been the continent's breadbasket; the region was endowed with rich agricultural land, providing an economic logic for continuing to produce and export agricultural goods. Instead, agriculture was starved of resources: Czechoslovakia, Poland and Yugoslavia only managed to match prewar levels of grain production toward the end of the 1950s. Similar problems resulted from the neglect of light industry, as in Hungary where handicraft trades were abolished so that resources could be transferred to heavy industry. Industry expanded but at the cost of grave inefficiencies like those which resulted from depriving towns and villages all blacksmiths, shoemakers and tailors.

Unlike the West, where increases in output translated into significant improvements in living standards, living standards in Eastern Europe, insofar as they can be measured, rose to a more limited extent. This too reflected over-concentration on heavy industry. The only use of much of what was produced by the industrial sector was to satisfy that same sector's own appetite for inputs. Managers protected themselves against the risk of missing production targets by over-ordering raw materials, building excess capacity, and employing superfluous labor; a target-oriented plan provided few deterrents against wasting resources in this way. Lagging living standards also reflected problems with what was produced in the consumer goods sector. Welfare in the West was enhanced by a growing variety of consumer goods;

under planning, enterprises were given targets only for the volume of output and reaped no reward for producing a wider variety of goods. Thus, the Hungarian footwear industry in the early ‘fifties produced just 16 different types of shoes.[38] And many of these goods were shoddy, quantity targets offering no reward for quality improvement.

Public dissatisfaction, and in Hungary open protest, led to some reallocation of resources toward consumer-goods sectors. Following Stalin's death Moscow insisted less strongly on the maintenance throughout Eastern Europe of rigid Soviet-style planning. Growth decelerated between the second half of the ‘fifties and the first half of the ‘sixties, and planners, partly out of desperation, began to experiment with decentralizing the planning mechanism. Managers were given more freedom to carry out their tasks. They were given more rewards for economizing on resources. Prices, albeit prices set by the Planning Office and not by the forces of supply and demand, were increasingly used to guide their decisions. The extent of these reforms varied: East Germany, Poland and Romania were the least ambitious, Hungary and Yugoslavia the most. Still, it is striking that after barely a decade of experimentation with the command economy, elements of the market began to creep back in.

Decentralization did not extend to the management of innovation, for which state socialism provided only weak incentives. Recognizing this weakness, which would became steadily more telling with the transition to intensive growth, Eastern European governments threw additional resources at the problem. East Germany established large-scale research centers within each of its *Kombinate* (industrial holding companies). In Czechoslovakia, where resources for R&D had been allotted to small as well as large enterprises, they were concentrated in the large ones in the hope that these would develop innovations with wide

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[38]Aldcroft and Morewood (1995), p.110.

applicability. The National Office for Technological Development in Hungary allowed R&D activities to remain more decentralized but sought to coordinate the tasks of the various research institutes.

Planning at home was incompatible, of course, with trading abroad. The prices set by the planners were different from those prevailing in the rest of the world, and free trade would have given enterprise managers conflicting signals. But neither was national self-sufficiency desirable, since the countries of Eastern Europe had different resource endowments and economic capabilities. The solution was to encourage trade within the Eastern bloc. The CMEA, or Comecon, was established in 1949 in reaction to Western European integration under the Marshall Plan; when Moscow barred Czechoslovakia and Poland from participating in that initiative, it had to offer an alternative. The CMEA's founding members, Bulgaria, Czechoslovakia, Hungary, Poland and Romania together with the Soviet Union, were joined by East Germany in 1950. Moscow's idea was that Czechoslovakia and East Germany would concentrate on the production and export of industrial goods while countries like Romania concentrated on agriculture in an "international socialist division of labor." This was incompatible with the ideology and aspirations of the Romanian leadership, however. Planners in each Eastern European country sought to create an economy in which industry accounted for half of output and agricultural for a quarter or less rather than specializing along lines of comparative advantage. Hence, relations within the CMEA were strained.

Intra-bloc trade nonetheless expanded under the influence of the CMEA, as the constituent economies shipped slightly differentiated goods back and forth among one another. Trade within Eastern Europe was twice as important in the 1950s as it had been on

the eve of World War II.[39] Much of the rest of the region's trade was with the Soviet Union. Trade with the Western Europe, where the Eastern European economies' principal market had historically lain, declined to negligible levels.

Regional Integration in Western Europe

The Eastern Bloc's commitment to Comecon was strengthened by regional integration in the West, which raised fears that Western European markets might be closed off to other regions. The progress of Western European integration was striking: the establishment of the European Economic Community in 1958 and its creation of a free trade encompassing France, Germany, Italy and the Benelux countries in less than ten years was without question the most profound development affecting the West in the 1960s. The stage had been set by the gradual elimination of the dollar gap — that is, of Europe's structural deficit vis-à-vis the United States. Important progress had already been achieved by the time the Marshall Plan was wound up in 1951. The further strengthening of Europe's payments position then allowed controls on current-account transactions to be substantially relaxed. By 1958 the countries of Western Europe were ready to restore full current account convertibility. In turn, this made feasible the establishment of a free trade area.

Freer trade allowed the participating countries to specialize more completely in the production of goods in which they had a comparative advantage and to better exploit economies of scale and scope. It eroded the market power of monopolies and cartels, forcing sheltered producers to shape up or lose market share to imports. The impact was most

[39]In other words, the share of Eastern European imports drawn from Eastern European sources was twice as high.

dramatic in countries like France whose economies had been sheltered in the 1950s. There, import exposure (the share of domestic consumption accounted for by imports) doubled from 8 per cent in 1959 to 16 per cent in 1969; between 1959 and 1980 import exposure increased by more than ten percentage points in 31 of 46 industries.[40] The share of Western Europe's trade that stayed within the region expanded by about a fifth in response to the removal of controls under the EPU and then the Common Market, from 56 per cent in 1955 to 66 per cent in 1969 (Table 5). The share of the exports of the six EEC members that stayed within the bloc rose by fully half over the period.

Empirical studies conclude that the EEC was trade creating rather than trade diverting, that it encouraged additional trade among its members rather than inducing them to trade with one another at the expense of the rest of the world.[41] The General Agreement on Tariffs and Trade (or GATT) deserves credit for this outcome; tariff reductions under the Kennedy Round of GATT negotiations in 1964-67 meant that freer intra-European trade complemented rather than substituting for freer trade with the rest of the world.

Not all of Western Europe belonged to the EEC; the founding participants were limited to the six members of the European Coal and Steel Community. The U.K. declined to join following a debate in which it rejected the Franco-German view that the free trade area should be seen as the first step toward deeper integration.[42] Still, the attractions of the Common Market proved irresistible; seeking both to liberalize trade among themselves and to negotiate favorable access to the EEC, Britain and six smaller European countries (Austria,

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[40]Adams (1989), pp.156-157.

[41]The relevant literature is cited in Bayoumi and Eichengreen (1997).

[42]Just as it had rejected the Schuman Plan prompting the creation of the Coal and Steel Community.

Denmark, Norway, Portugal, Sweden and Switzerland) responded by establishing the European Free Trade Area (or EFTA) in 1959, an entity whose more limited aspirations were evident in its name.[43]

The Apex of the Golden Age

In response to the stimulus of freer trade, growth measured on a per worker basis accelerated further in Western Europe.[44] The rate of growth of output per employed person rose from 3.6 per cent per annum in the ‘fifties to 4.2 per cent in the ‘sixties (see Table 6).[45] Investment was maintained at high levels, and most of the countries of Western Europe remained net importers of financial capital, with the exception of the U.K. and, in the second half of the 1960s, West Germany and Italy. Much of this foreign investment originated in the United States and was associated with technology transfer in sectors like chemicals, computers and transport equipment. Investment ratios rose compared to the earlier period, although this did not boost the growth rate of output still further because more investment was needed to make good on depreciation of a now larger capital stock and because a declining share of investment was devoted to industry (reflecting the demand for better housing and increased consumer durables on the part of now wealthier households).

[43]Finland became associated with EFTA in 1961.

[44]We must at least entertain the possibility that causality ran in the opposite direction, from faster growth enjoyed for independent reasons to willingness to participate in a free-trade area. Lamfalussy (1963) considers this question and concludes in favor of the interpretation in the text.

[45]The acceleration in the rate of growth of GDP was somewhat more modest, rising from 4.5 to 4.7 per cent per annum, reflecting the falling rate of growth of employment.

Extensive growth was sustained by the movement of workers to the industrial regions from Mediterranean Europe and North Africa. Only in Austria and West Germany, where extensive growth had been fastest in the ‘fifties, was there a clear slowing down in the ‘sixties, reflecting significantly slower rates of both labor-force and total-factor-productivity growth (Table 7). In Belgium, Denmark, France and Norway, all relatively poor performers in the 1950s, there was a marked acceleration. Norway finally reaped returns on expensive infrastructure investments undertaken in earlier years. France, previously saddled by controls, cartels and public enterprises, benefitted disproportionately from the liberalization of trade. Denmark, where trade liberalization had created problems for an industrial sector that had been generously protected since the 1930s, now reaped the benefits of industrial rationalization (inefficient firms closed and many of their more efficient counterparts merged, leading to increased productivity and a greater ability to reap economies of scale), allowing increased production and exports of engineering and electrical equipment and of the products of the brewing industry.

Growth accelerated to even higher levels in Southern Europe, as Greece, Portugal and Spain began liberalizing and opening to Europe and the world. In Spain, the pivotal event was the new tariff of 1960, under which approximately half of all barriers to imports from OECD countries were removed.[46] For Portugal it was joining EFTA. Greece negotiated an association agreement with the EEC (as did Spain). Rather than shunting these countries into the agricultural backwater as some feared, opening was associated with rapid growth of labor-

[46]Spain was the only Western European country where the growth of exports lagged the growth of output in the 1950s.

intensive manufactures.[47] In Spain, for example, industrial production expanded at an annual rate of 10.2 per cent, the service sector by 6.7 per cent and agriculture a mere 2.3 per cent per year from 1960 through 1973, as labor was shifted from low-productivity agriculture to high-productivity manufacturing, and as capital goods were imported from abroad.[48] This was extensive growth redux. With Austrian and German growth declining from higher levels and the pace picking up in these other countries, expansion by at least 4.5 per cent per annum, fully twice the historical average, became the norm.

Britain remained the sick man of Europe.[49] The corporatist bargain of wage restraint in return for high investment had never taken hold in the British Isles. Early industrialization had bequeathed deeply-ingrained class distinctions between different crafts and trades and a fragmented system of industrial relations. Employers were forced to negotiate with a bewildering array of craft-based trade unions and with shop stewards who enjoyed a high degree of autonomy.[50] They resisted all efforts to coordinate an economy-wide wage bargain and fought the introduction of new forms of work organization. While employers made a number of attempts to cooperate more systematically, they had no identifiable counterpart on

[47]In part this reflected the fact that trade in agriculture was less than free. Among the first concrete achievements of the EEC was its Common Agricultural Policy, under which trade in foodstuffs was restrained, and the EFTA agreement was initially limited to industrial goods.

[48]Harrison (1993), p.23.

[49]Growth was also disappointing in Ireland and Denmark, in part because both countries were dependent for exports on the slowly growing British market. The fact that the incremental capital-output ratio was high in Ireland suggests that supply-side problems existed there as well. These can be attributed to the kind of fragmented industrial relations system also familiar in the U.K. context (see the discussion to follow). In addition, the fact that these two economies were heavily agricultural meant that they encountered particular difficulties in gaining access to the protected domestic markets of other countries.

[50]A concise treatment of these developments may be found in Crouch (1984).

the union side. Thus, when in 1951-2 the new Conservative Government sought to obtain union agreement to an economy-wide program of wage restraint (tying wage increases to the growth of production), the delegates to the Trades Union Congress rejected a recommendation by their General Council for a study of its desirability. The unions similarly rejected Chancellor Macmillan's attempt to coordinate economy-wide wage settlements in 1957. As Edelman and Fleming (1965, p.290) put it, "[t]he only period of real wage restraint was from 1948 to 1950 and that was not attributable to any formal policy...Thereafter restraint fell by the wayside, and has never again been made really effective on the trade union side."

Inadequate coordination which meant poor wage restraint, together with resistance to the introduction of new technologies and forms of work organization, produced disappointing profits and weakened the incentive to invest. British investment rates in the era of extensive growth (1950-69) were the lowest of any Western European country.[51] And total factor productivity growth lagged far behind that of the other Western European countries considered in Table 7. The government sought to wring addition output from its capacity-constrained economy by running it at high levels of pressure. As a result, demand periodically spilled out into inflation and balance-of-payments deficits, forcing the authorities to slam on the brakes by raising interest rates. This policy of "stop-go," and in particular the unstable financial conditions with which it was associated, hardly encouraged investment.

Balance-of-Payments and Other Problems

[51]United Nations (1972), p.14. This point should be qualified by noting that consistent data on investment are difficult to assemble for Ireland in the 1950s, when its economic performance was similarly poor.

Following a “growth recession” at the end of the 1950s, the European economy expanded steadily through 1966 (interrupted in 1962 in Britain and 1963-4 in Italy). The upswing disguised disturbing tendencies, including growing labor militancy and a propensity for demand stimulus to show up in inflation rather than employment. And with inflationary pressure came problems of external balance. Inflation rendered exports less competitive. The postwar social compact made no allowance for nominal wage reductions; a deterioration in a country’s competitive position could be reversed only by devaluing its currency. Although the Bretton Woods international monetary system established in the wake of World War II allowed countries to change their exchange rates against the U.S. dollar in the event of a “fundamental disequilibrium,” it did not encourage them to do so. Governments were required to obtain approval from the International Monetary Fund, discouraging them from invoking the option for fear that their intentions might be leaked to the market. Frequent small devaluations might be undertaken without prior approval but threatened to undermine the credibility of the government’s exchange rate commitment and to excite destabilizing capital flows.

More generally, orderly devaluation became more difficult with the rise of international capital mobility, reflecting the recovery of capital markets from their interwar doldrums, the relaxation of exchange and trade restrictions, and the growth of the market in Eurodollars (dollar-denominated claims outside the United States). Now rumors of devaluation could provoke massive, destabilizing capital flows, leaving governments willing to contemplate the option only as a last resort. The only major devaluations in the period were by Britain in 1967 (which led to compensatory devaluations by Denmark, Finland, Ireland, and Spain) and France

in 1969.[52] Given how Bretton Woods arrangements encouraged governments to delay the decision, devaluation inevitably took place in an atmosphere of crisis. The 1971-3 collapse of the Bretton Woods System of pegged but adjustable exchange rates was precipitated by events elsewhere in the world, specifically by Washington, D.C.'s reluctance to either restrain domestic inflation or to alter the dollar exchange rate, but mounting balance-of-payments difficulties in much of Europe heightened these tensions.

4. The Economics of Intensive Growth

As they moved through the 1950s and 1960s, the Western European economies gradually exhausted the technological backlog inherited from World War II. They found it increasingly difficult to sustain growth by the simple multiplication of inputs of capital and labor. The Fordist model of dividing and conquering the labor process that had dominated the period of extensive growth gave way to flexible production based on microchip technologies and numerically-controlled machine tools. The challenge now was to innovate, to develop new products and new processes.

Here the United States had a leg up. In 1963 it devoted 3.5 per cent of its GDP to research and development (R&D) spending. Only in the United Kingdom was the R&D share of national income even half as high. By the middle of the decade, the United States was spending five times as much as all of Western Europe on R&D in the computer industry. Whereas the U.S. devoted nearly eight per cent of government expenditure to R&D, in no

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[52]In addition, there were a few isolated revaluations, like those of Germany and the Netherlands in 1961. But powerful export interests, spoken for by Fritz Berg, the president of the Federation of German Industry and Herman Abs, chairman of Deutsche Bank, resisted revaluation and could rely on the political support of Chancellor Adenauer and, later, the influential president of Bavaria's conservative party, Franz Josef Strauss.

European country was the comparable ratio even half as high. Admittedly, a good deal of public-sector R&D in the United States was devoted to military projects with limited commercial potential, but the U.S. still had a clear head start in pure and applied research.[53]

European governments took steps over the 1960s to close the gap. Their R&D spending rose rapidly (most so in the smaller countries). The small states concentrated on applied research relevant to their existing industrial base, while larger ones, where more R&D spending was by government and less was business-financed, devoted a larger share to modern, science-based sectors. With the exception of the U.K., the countries of Western Europe all managed to expand their shares of global exports of research-intensive goods between the mid-'fifties and mid-'sixties. A 1968 OECD study concluded that Europe's share of major innovations corresponded almost exactly to its share of OECD output.[54] While the United States remained the technological leader in the late 1960s, Western European was increasingly well positioned for the transition to intensive growth.

[53]United Nations (1972), chapter 8.

[54]OECD (1968).

Inflationary Pressure and Labor Conflict

Intensive growth still required investment, albeit of a different sort. In turn, this required the maintenance of the postwar bargain of wage restraint in return for the reinvestment of profits. The acceleration of inflation in the late 1960s consequently jeopardized the entire process. After two decades in which observers contemplated the "withering away of the strike," in 1968-69 inflation provoked work stoppages in support of wage demands over much of Europe, threatening to relegate the postwar social compact to the dustbin of history.

Several factors combined to aggravate friction in the labor market. Employment in agriculture having fallen to less than 15 per cent of employment continent-wide, elastic supplies of underemployed labor from the agricultural sector no longer put a lid on industrial wage demands. Unemployment, having remained high in the 1950s, fell to very low levels. The threat of unemployment no longer disciplined wage demands to the same extent.[55] Moreover, wage and price inflation showed disturbingly little tendency to subside even when unemployment rose, as in the recession of 1970-71, indicating that other factors were also at work. For one, memories of high unemployment faded as the older generation aged and retired. For another, willingness to sacrifice on behalf of postwar reconstruction gave way to demands for immediate gratification, and satisfying those demands could not be put off

[55] As Johansen (1987, pp.148-9) describes the situation in Denmark, "In the mid-1960s the registered unemployed were either workers who were in the process of changing from one job to another and had a few idle days in between, or older people staying in isolated municipalities in Northern Jutland or the smaller islands from where they did not want to move."

indefinitely. Finally, the Soviet threat was perceived as less immediate, removing one immediate incentive for labor and capital to pull together.[56]

Were this not enough, with the weakening of the Bretton Woods System and its breakdown in the 1970s, inflationary expectations lost their anchor. So long as countries were committed to defending their exchange rate pegs, there was no possibility that they would succumb to sustained inflation. Since bursts of inflation were only temporary, workers had relatively mild incentives to demand compensatory wage increases. The Bretton Woods System anchored expectations, moderating the impact of inflation on wages. But once the Bretton Woods anchor began to drag, unions feared that inflation, once ignited, would persist. Keynesian demand stimulus provoked increased wage demands and translated into additional inflation, not extra output and employment.[57]

Each element that had contributed to the earlier climate of wage restraint thus weakened over the second half of the ‘sixties before breaking down completely. The wage increases won by strikers in 1968-69 were about twice those of the preceding three years.[58] Money wages grew faster in 1969-73 than they had in 1962-69 in each of the nine European countries considered by Flanagan, Soskice and Ulman (1983, Table 1-1). Real wages grew faster everywhere but in Norway (where their rate of growth declined only marginally).[59] And at the same time wage growth accelerated, productivity growth slowed (Table 8). The result

[56]A point emphasized by Maier (1985).

[57]Evidence on the persistence of inflation and its impact on the economy is provided by Alogoskoufis and Smith (1991) and Eichengreen (1993).

[58]Allsopp (1983), Table 3.4.

[59]See also Nordhaus (1972) for a comparative analysis of these trends.

was a sharp fall in the share of profits in national income fell between 1965-69 and 1970-73.[60] The profit share began falling, in other words, even before Europe was hit by the 1973-74 oil-price shock.

Governments did what they could to contain inflation. Most immediately they sought to douse the flames by imposing controls. In the U.K., a statutory freeze on wages and prices was in effect from July 1966 through June 1967, a period of severe weakness in the British balance of payments.[61] The Netherlands operated price controls from 1961 through the end of 1966, and employers agreed to a voluntary extension of the program subsequently. Other European countries attempted similar measures.

These policies were "not very successful," according to the authors of the definitive postmortem on the subject.[62] Prices could be frozen for a time by decree, but eventually the effectiveness of such decrees would break down. Producers sought exemptions on grounds of exceptional increases in costs. They lobbied for the abandonment of controls when unions resisted freezing wages and profits were squeezed. Efforts to enlist union federations in the anti-inflationary campaign met with only limited success. An agreement to restrain wages on the part of the central labor federation might not extend to nonunion workers. Negotiations at the plant level frequently violated caps set in economy-wide bargaining (a phenomenon known

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[60]Hill (1979). By the end of the 1960s the share of profits in European national incomes was fully a fifth lower than it had been 15 years earlier. See also Flanagan, Soskice and Ulman (1983) and Marglin (1990).

[61]Following the 1967 devaluation, the "nil norm" was maintained but increases up to a ceiling of 3 ½ per cent were authorized to offset a portion of the devaluation-induced increase in the cost of living.

[62]Ulman and Flanagan (1971).

as wage drift). Fearing that they alone would bear the burden of restraint, members of the central federation went out on wildcat strikes and lobbied against renewal of the agreement.

The Contradictions of Corporatism

Given the limited effectiveness of controls, governments sought to extend the system of bond, sanctions and rewards with which they supported the postwar social compact and which had sustained wage and price stability for some two decades. Workers were promised increased and health and unemployment payments and increased social security stipends in return for wage restraint. Financing these programs was serious business. Public expenditure as a share of gross domestic product rose from 38 per cent in 1967-69 to 46 per cent in 1974-76.[63] The growth of public spending was particularly rapid in Germany, the Netherlands, Denmark and Sweden, where it was tied to the expansion of transfer payments and social-service programs.

Where the institutions of corporatism were most advanced, their reinforcement limited the rise in labor costs and the rate of unemployment.[64] Following the wage explosion of 1974-5, wage increases slowed. Demand stimulus (fiscal expansion and accommodating monetary policy) was combined with agreements by the unions to keep wage increases below inflation, and with increases in public employment where necessary, to offset the impact of the first OPEC oil-price shock on unemployment. In Austria and Sweden, where the relevant institutions were highly developed, wage moderation in combination with increased public

[63]This is an unweighted average for nine countries, calculated from data in Table 1-6 of Flanagan, Soskice and Ulman (1983).

[64]Typically, in the smaller European democracies. See Katzenstein (1984, 1985).

employment and demand stimulus kept unemployment at a remarkably low 1.7 and 2.0 per cent of the labor force in 1973-79. In Germany, where the unions similarly restrained wages but macroeconomic policy was less stimulative (due to the strong anti-inflationary predilections of the Bundesbank and deficit reductions by state and local governments), unemployment still averaged less than 3 per cent. By comparison, in Britain, Italy and France, where corporatist institutions were less well developed and more difficult to reinforce, unemployment rates were higher (as shown in Table 9).

The cost was inflation, which accelerated to 5 per cent in Germany, 6 per cent in Austria, and 11 per cent in Sweden. Western European Inflation rose from 5 per cent in 1960-73 to fully 10 per cent in 1973-79, placing growing strain on the consensus favoring wage restraint.[65] As wages began to rise faster, more demand stimulus was needed to cap unemployment. Inflation became a troubling fact of life.

And while wage restraint together with Keynesian demand stimulus limited the rise in unemployment, it did not sustain growth at historical rates. Western Europe's GNP grew only half as fast (at an annual average rate of 2.2 per cent) between the business cycle peaks of 1973 and 1979 as it had over the preceding two cycles. In part this was a cyclical phenomenon: output declined significantly in 1974 before wage restraint was achieved and the effects of Keynesian stimulus began to kick in, producing the most serious pan-European recession in two decades. Doubts that the authorities could reinforce the postwar social compact and respond with countercyclical policies meant that expectations did not respond in stabilizing fashion, causing investment to fall more sharply than in any previous postwar

[65]As measured by the GNP deflator.

recession.[66] The decline in output, together with the employment-smoothing policies of firms, meant that labor productivity grew more slowly than over the typical postwar cycle. And with output growing slowly, even improved wage restraint did not deliver the investment needed to return productivity growth to previous levels.[67]

The acceleration of inflation also meant that when at the end of the 1970s the economy was disturbed by the second OPEC oil-price shock and then by monetary disinflation in the U.S., U.K. and Germany, it became more difficult to apply the same shopworn formula. Additional demand stimulus would have only aggravated an already serious inflation problem. Inflation which eroded real interest rates had already given finance an incentive to seek more remunerative opportunities abroad; an unintended consequence of the policies with which governments met the first oil shock was thus a rise in capital mobility which constrained the policy independence of national central banks and limited the scope for using interest rates to encourage reinvestment and thereby cement the corporatist bargain. Having held wages below inflation once, the unions were loathe to do so again. Public employment having been raised significantly in response to the previous recession (by 3.4 per cent per annum in 12 European countries between 1974 and 1978), there was less room for pursuing this avenue again. For all these reasons, the "social democratic-Keynesian cooperation" that had contained European unemployment in the 1970s proved impossible to sustain.[68] With governments unable to

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[66]Investment fell by 2 ½ per cent in 1974 and 4 per cent in 1975 before recovering thereafter. This argument about the role of stabilizing expectations in damping the business cycle in the 1950s and 1960s is elaborated in Boltho (1982).

[67]Whereas gross fixed investment grew at more than 5 per cent from 1960 through 1973, it grew by a mere 0.8 per cent from 1973 through 1979. These connections between labor productivity, profits and investment are the subject of Bruno and Sachs (1985).

[68]The phrase is from Scharpf (1991).

reinforce it, social corporatism began to crumble in Belgium, the Netherlands, and elsewhere in Europe. Economy-wide bargaining fell apart and the welfare state came under attack. By the mid-'eighties, corporatism was in retreat throughout the OECD.[69] Possessing neither a highly decentralized labor market like the U.S. nor efficiently concertized arrangements like those of earlier years, European countries found it impossible to mount a coordinated response to recessionary pressures. Hence adjustment to the second oil shock proved more difficult than adjustment to the first (despite the fact that the magnitude and persistence of OPEC-II was less). Between 1973-79 and 1979-85, unemployment rates Europe-wide rose by half again and in some countries, like Germany and the Netherlands, more than doubled.

Moreover, there is an important sense in which the continent's subsequent difficulties were created or at least aggravated by these efforts to reinforce the social contract.[70] Nonwage labor costs shot up as a result of governments' attempts to shift the burden of financing social benefits onto employers.[71] These costs rendered firms reluctant to hire and undermined their international competitive position. Generous unemployment benefits which

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[69]See Marks (1986), p.269 and Pohjola (1988), p.46.

[70]To be sure, this is not the entire explanation for the explosion of the welfare state in the 1970s. The European desire to develop a more elaborate welfare state reflected deeply held social values, specifically the sway of communitarian values in contrast with the individualistic attitude typical of the United States. European societies could better afford to indulge their taste for equality and redistribution after the fast growth of the 1960s. Moreover, there is Rodrik's (1997) argument that the residents of more open economies demand more elaborate programs of social insurance against trade-related sources of insecurity; European economies both grew more open over the course of the 1950s and 1960s and could better afford to pay for such insurance by the 1970s. While not denying the relevance of these factors, the argument here is that the welfare state of the 1980s was an immediate product of the expedients to which governments resorted in the late 1960s and 1970s to contain the explosion of inflation and avert the breakdown of the postwar social compact.

[71]Nonwage costs as a share of total labor costs rose between 1965 and 1975 in each of the nine countries considered by Flanagan, Soskice and Ulman.

insulated the unemployed from pressure to search for work originated in these years. The policies which allowed workers to freely claim disability benefits and draw after-tax compensation of 90 per cent of their previous incomes were products of this decade. These factors combined to render Europe's labor markets less flexible. And the recipients of governments' largess soon became formidable opponents of those who sought reform.[72]

Finally, the expansion of public spending led to the accumulation of unsustainable levels of public debt. By the mid-1980s the mounting debt problem led to fiscal retrenchment and radical public-sector reform in Denmark and Ireland. In the rest of Europe it led to protracted fiscal problems with which governments are still grappling.

The Retreat into Regional Integration

The growing volatility of the global economy lent new impetus to the process of European integration, as European governments sought to create for themselves a zone of economic stability. This desire buttressed support in the U.K., Ireland and Denmark for joining the EEC and sentiment among the incumbents for accepting them. Enlargement of the Community to encompass these countries was completed in 1973. The next challenge was to address the problem of exchange rate volatility produced by the collapse of Bretton Woods. Exchange rate fluctuations threatened to excite inflationary expectations and also to jeopardize the Common Agricultural Policy (or CAP) that provided the political glue holding the European Economic Community together. Under the CAP, domestic-currency support prices were set for a range of agricultural commodities in each member state. Exchange rate fluctuations disrupted the relationship of these prices in different countries and thereby the

[72]As argued by Saint-Paul (1997).

operation of the program. More generally, there was the fear that uncontrolled exchange rate fluctuations would strengthen demands for protection, undermining the operation of the Common Market.

Europe's response was the Snake, adopted in the wake of the Smithsonian Agreement of December 1971 which had allowed a dramatic widening of currency bands against the dollar. Participating countries agreed to hold their exchange rates within narrow margins and established the Short-Term and Very-Short-Term Financing Facilities to extend credits to one another. Unfortunately, their desire for exchange rate stability was not accompanied by significant convergence in their monetary and fiscal policies. This is not surprising, given the widely differential impact of the oil- and commodity-price shocks of the mid-1970s and divergent views of the appropriateness of an accommodating policy response. Countries following relatively inflationary policies were repeatedly driven from the Snake. The U.K. was first to withdraw, on June 23, 1972. Denmark withdrew a week later before returning in October. Italy withdrew in 1973. France was forced to float in January 1974 before rejoining in mid-1975 and then withdrawing again in March of the following year. Sweden withdrew in 1977, Norway in 1978. Only Germany and the Benelux countries remained associated throughout.

The French and German economies being at the heart of the European Community, an arrangement which failed to stabilize the French franc against the German mark was unlikely to remain viable for long. The desire to unite the two countries politically as well as economically remained a centerpiece of the integrationist project. French President Valery Giscard d'Estaing and German Chancellor Helmut Schmidt responded by proposing the creation of a new structure, which came to fruition in 1979 as the European Monetary System

(or EMS). The EMS was a better appointed version of the Snake, reflecting the lessons drawn from the operation of its predecessor. Under the EMS Agreement, the Short- and Very-Short-Term Financing Facilities were enlarged. While the participants were still obligated to hold their currencies within narrow (2¼ per cent) fluctuation bands, provision was made for participants to devalue and revalue (in euro-speak, to realign) as a way of avoiding the kind of difficulties that had forced France to withdraw from the Snake; in addition, governments were permitted to retain capital controls to protect themselves from destabilizing capital flows.[73] Realignments and controls were designed to limit the amount of intervention strong-currency countries might be called upon to extend to their weak-currency counterparts. They reassured the German Bundesbank, which feared that its obligation to extend unlimited support under the terms of the EMS Articles of Agreement might undermine its inflation control.

Eight of the nine EC members participated in the EMS from the outset (excepting only the U.K.). None of the founders was forced to withdraw over the course of the 1980s, in contrast with experience under the Snake. In part this reflected the prevalence of controls, which had been tightened in the late 'seventies and offered countries like France and Italy room for maneuver.[74] In part it reflected governments' willingness to realign: there were EMS realignments in September and November 1979, March and October 1981, February and June 1982 and March 1983. The election of a Socialist Government under François Mitterrand in 1981 led France to adopt expansionary policies which considerably increased the strains on

[73]Italy, which suffered from particularly difficult problems of inflation control, was permitted a wider fluctuation band of plus or minus six per cent.

[74]The differential between onshore and offshore interest rates, one measure of this margin, could exceed 15 per cent in periods of stress. See Eichengreen and Wyplosz (1993).

the EMS, but the repercussions were limited to realignments in 1981, 1982 and 1983 and did not precipitate to French abandonment of the system.[75]

Still, poor coordination of macroeconomic policies strained the EMS. The climate of crisis they created was not helpful. Moreover, unilateral monetary and fiscal initiatives like those of the French socialists were ineffectual in achieving their goal of increased employment, given the inadequacy of wage restraint and the capital flight they now provoked. Ultimately this led even socialist governments to abandon the pursuit of radical, unilateral initiatives. Inflation and interest rates grew progressively better harmonized. Resort to realignment grew less frequent. The most restrictive capital controls were relaxed.

Rising Unemployment and the Integrationist Response

The achievement of currency stability was gratifying but alone could not remedy the problems of unemployment and slow growth, which by mid-decade cast a pall over Europe. As Table 10 shows, the 1980s were a decade of disappointing aggregate growth and disappointing productivity growth in particular. Unemployment rates, having gone up in the early 'eighties, showed disturbingly little tendency to come down. By the second half of the decade, the problem was widely diagnosed as one of inadequately flexible wages, overly rigid work rules, and excessive labor costs.[76] For employers the problem was how to eliminate these rigidities. For the unions it became how to prevent "social dumping" (competitive cuts

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[75]In fact, the Mitterand Government contemplated abandoning the EMS in 1983, an option supported by influential ministers including Laurent Fabius and Pierre Beregevoy. In the end the decision was taken to opt for austerity instead on the grounds that abandoning the EMS might jeopardize the progress of European integration and that the impact on the franc might include a free-fall on the foreign exchange market.

[76]See e.g. OECD (1986).

in wages and work rules designed to import jobs and export unemployment to one's European neighbors), especially once Margaret Thatcher's Government succeeded in curtailing the power of Britain's unions and recasting the country's labor markets along American lines.

A generation earlier, when conflict had cut along national rather than functional lines, political leaders had sought a solution in European integration. This same strategy was now deployed again in response to unemployment. Deeper integration — adding the free movement of capital and labor to the already existing customs union — could create a unified economic zone as large as the United States, enabling European producers to better exploit economies of scale and scope and compete internationally. Harmonizing regulatory structures would simplify doing business. Eliminating excessive regulation and state aids and subsidies by empowering the European Commission to disallow unfair impediments to intra-European competition promised to further enhance Europe's international competitive position. Marrying deeper integration with a "European social charter" under whose terms countries promised to maintain acceptable working conditions and avoid social dumping made this bargain acceptable to labor. A major step in this direction was the Single European Act (SEA) in 1986, under which the signatories agreed to the creation of a single market free of internal barriers to trade.[77]

The Maastricht Treaty, hammered out in intergovernmental negotiations starting in 1990, adopted by the European Council in 1991, and ratified by the member states in 1992, was the next step in this process. The treaty contained a "social chapter" promising labor protection against social dumping; in a sense this was the other half of the bargain that had

[77] 1986 also saw the second enlargement of the Community to include Greece, Portugal and Spain, an event which can be seen as responding to these same imperatives.

allowed for the adoption of the Single European Act.[78] But at the core of the treaty was a commitment to move to monetary union (a single monetary policy, a European Central Bank, and a single currency) by the end of the decade.[79] This too was an outgrowth of the SEA. Integral to the creation of an integrated internal market was the removal of capital controls. But the elimination of controls rendered the European Monetary System more fragile than before. Countries were more directly exposed to destabilizing capital flows. The periodic realignments that had vented pressures and restored balance to the EMS now proved more difficult to effect, since the merest hint that a devaluation was in the cards now provoked a massive outflow of funds. After 1987 there were consequently no more realignments of EMS currencies.

But there were reasons to doubt that this situation was sustainable. A basic tenet of international economics is the “unholy trinity” -- the incompatibility of fixed exchange rates, international capital mobility and monetary independence. Now that the mobility of capital had been restored, European governments had to choose between fixed exchange rates and independent monetary policies. And the only way of credibly forsaking monetary independence was by going all the way to a common currency. For countries other than Germany, which were already forced to follow a Bundesbank whose anti-inflationary credentials allowed it to set the tone for monetary policy Europe-wide, this strategy had the additional advantage of promising that they might regain some control of their monetary destinies. (While they had no representatives on the board of the Bundesbank, they would be

[78]Mrs. Thatcher, having already remade the U.K. labor market along American lines, obtained a temporary opt-out from this provision.

[79]In practice, the single currency could be issued slightly later, two or three years after the European Central Bank was established, the single monetary policy came into being, and the currencies of the participating countries were first exchanged at par.

represented on the board of any future European central bank.) If they failed to follow this route, the alternative could be exchange-rate volatility of a sort that might jeopardize support for the single market.

Guided by the Delors Report, the Maastricht Treaty sketched a three-step transition to monetary union.[80] In Stage I (1990-93), countries were to bring their national economic policies more closely into line, remove their remaining capital controls, and buttress the independence of their central banks. Stage II, starting in 1994, was to be marked by the further convergence of policies and by the creation of a transitional entity, the European Monetary Institute, to plan the move to monetary union. The timing of Stage III, monetary union itself, would be determined by a vote of the Council of Ministers but was in no case to be delayed beyond the beginning of 1999.

Clearly, the members of the Delors Committee and the framers of the Maastricht Treaty had in mind a smooth glide path to monetary union. They did not anticipate the turbulence to follow. In particular, they did not forecast the collapse of the centrally-planned economic and political systems of Eastern Europe and the Soviet Union or its implications for their own integrationist ambitions.

The Crucible of Integration

The Western European country where the impact of events in Eastern Europe was most profound was Germany, where neither language, physical distance, nor man-made barriers like the Berlin Wall could hold back east-west immigration. West German Chancellor

[80]Chaired by European Commission President Jacques Delors, the official title of the report, published in 1989, was "Report on Economic and Monetary Union in the European Community."

Helmut Kohl, never one reluctant to take a leap, responded by proposing the immediate reunification of the two Germanies. Reunification responded to the deeply-held belief in Germany of the artificiality of the country's postwar division, and for that matter of the division of Europe itself. A weakened Soviet Union, concerned mainly to obtain NATO acceptance of its western borders and desperate for foreign aid, was in no position to object.

The unification of the two Germanies under the banner of the Federal Republic — with a single currency (the deutsche mark) and a single political system — did not magically dissolve all social and economic ills. Living standards were lower in reunified Germany's new eastern states, producers there being burdened by inadequate infrastructure and outdated, poorly-maintained capital equipment. Unemployment and enterprise failures rose as consumer goods produced in the east were pushed off store shelves by brand-name goods from the west.[81] In 1991, the new *lander* accounted for 20 per cent of reunified Germany's combined labor force but less than seven per cent of its combined GNP; labor productivity computed in this way was nearly three times higher in the west. A strong incentive for east-west migration remained, which was hardly welcomed in the comfortable precincts of the west. Moreover, the cheap labor of the east threatened the unions of the west, which feared the emergence of a low-wage Mezzogiorno that would undercut their bargaining power.[82]

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[81]It followed that output and employment in sectors producing nontraded goods (household services, for example) held up relatively well, especially insofar as demand was sustained by transfers from the government of the Federal Republic.

[82]For both reasons (the incentive to migrate and the low-wage threat), deferring full economic and monetary unification and maintaining a flexible exchange rate between the two Germanies, as proposed by critics of the one-to-one currency conversion, would have made little practical difference. A lower exchange rate would not have eliminated the political pressure to bring up eastern wages to western levels (to discourage migration and the emergence of a low-wage backwater); hence, currency depreciation would simply have

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The Bonn Government responded by accepting the unions' demands that their bargaining coverage be extended to the new states of the east and that wages there be pushed up to West German levels. It provided transfers to the new states to keep their residents at home and to bring physical and social infrastructure, and hopefully productivity, up to western levels. Transfers to the new *lander* reached nearly two-thirds of their GDP in 1992 and 1993, extraordinary high levels by any standard.[83] Indeed, the policy of high wages made extensive transfers inevitable insofar as it pushed up labor costs and aggravated transitional unemployment.[84] Transfers meant deficits, given the reluctance of West Germans to pay higher taxes. Deficits meant higher interest rates, given the reluctance of the Bundesbank to run accommodating monetary policies. And since interest rates were hitched together by the pegged exchange rates of the EMS, upward pressure on their level was a pan-European phenomenon. And those higher interest rates aggravated unemployment continent wide.

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[82](...continued)
prompted faster domestic-currency wage inflation, until real wages were little different than they in fact turned out to be. Even under the one-to-one conversion rate, nominal wages in the east rose from 30 per cent of West German levels in July 1990 to 60 per cent by the end of 1992 and 70 per cent at the end of 1993. Under a lower conversion rate, the starting point might have been different, but there is no reason to think that the destination would have differed. The same response applies to the argument that currency conversion at a rate of two or three to one would have been better than the actual policy of one to one; a lower conversion rate would have simply meant faster wage inflation in the east, assuming that the political pressure for wage increases was not at the same time removed.

[83]By comparison, the Italian South received net official transfers from the Center and North of Italy of about 31 per cent of Mezzogiorno GDP in 1988, or about half of east German levels. Steinherr (1994), p.33.

[84]In the third quarter of 1994, for example, labor productivity (output per employed person, included the self-employed) was 46 per cent of West German levels, while gross wages had been pushed up to nearly 80 per cent of those levels. Thus, the cost of labor in the east, so measured, was nearly twice as high. Siebert (1995), p.6.

These conditions formed the backdrop to the crisis that disrupted the progress of Europe's integration project in the summer of 1992. The Maastricht Treaty required countries seeking to qualify for monetary union to hold their exchange rates within their 2¼ per cent EMS bands and to adopt policies of budgetary austerity. But the higher unemployment climbed, the more governments hesitated to incur further austerity now in order to reap the reward of monetary unification later. A number of the countries concerned, Italy among them, were already suffering from inadequate competitiveness, having failed to bring their inflation rates down to German levels. Now their central banks were forced to ratchet up interest rates still further to defend their currencies against speculators betting that they might eventually be devalued. And higher interest rates in turn worsened unemployment, which created new doubts about whether governments would stay the course, requiring still higher interest rates to fend off the speculators.

Denmark's rejection of the Maastricht Treaty in a referendum on June 2nd, 1992 was the spark that ignited this combustible mix. It raised the possibility that monetary union might not happen, in which case governments' principal incentive to continue pursuing tight, anti-inflationary monetary and fiscal policies would be removed.[85] Anticipating that the Bank of Italy, the Bank of England, and perhaps others would respond by cutting interest rates and allowing their currencies to depreciate, speculators pounced, driving Italy and the U.K. had out of the EMS. Their currencies depreciated by some 30 per cent. Spain, Portugal and Ireland were forced to devalue, in some cases repeatedly. As the crisis dragged on into the spring and summer of 1993, even the French franc, one of the key currencies at the center of

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[85] In fact, Denmark ratified the treaty in a subsequent referendum the following May, while obtaining an opt-out from the monetary union project.

the EMS, came under attack. The crisis came to a head in the final week in July. Under intense pressure of time ministers and central bankers agreed to widen EMS bands from 2¼ to 15 per cent.

Now that exchange rates could vary over a wider interval, making currency speculation less of a one-way bet, speculators retired to the sidelines. Behind the cover of wide bands, European financial markets settled down. Stimulated by the U.S. economy's recovery from its own post-Cold-War recession, Europe's economies began recovering too. Governments could resume their efforts to meet the Maastricht requirement that they cut public-sector debts and deficits to qualify for monetary union. Serious fiscal retrenchment was undertaken by the Netherlands, Sweden and Finland (the Scandinavians, along with Austria, having joined the European Community, now European Union, in the third enlargement in 1995), while Italy and France settled for more cosmetic steps.

Unemployment showed disturbingly little tendency to come down. As late as 1998 it remained in the double digits, an order of magnitude higher than in the golden age of the 1960s and more than twice the rates of the United States. With the decline of corporatism and little capacity for coordinated adjustment, the legacy of strong unions and highly-developed welfare states now meant mainly high wages, restrictive work rules, and burdensome nonwage costs. While high wages provided unions and employers an incentive to find ways of raising labor productivity, there were limits to this process.[86] With lower labor costs stimulating the

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[86]These limits were especially evident in eastern Germany, where western wage standards, work rules and non-wage labor costs pushed up the wages producers had to pay, while productivity growth lagged far behind. Costs of production being so high, the incentive for investment by West German firms in the new eastern *lander* remained limited. With time, workers and firms found their way around these obstacles, liberalizing work rules and paying lower, non-union wages more in line with productivity. In the meantime, unemployment rates (continued...)

demand for labor in the United States, the U.S. economy added as many jobs in a month as Europe did in a year. There was growing awareness of the need to cut hiring and firing costs in order to make the European labor market more flexible. But while eliminating firing costs allowed firms to lay off redundant workers, employers were still reluctant to hire so long as reform remained incomplete. While cutting budget deficits reduced the burden on the private sector, interest rates did not come down so long as the permanence of those cuts remained in doubt, and employment was little stimulated.

Having gone half way toward fiscal and labor-market reform, Europe's governments were caught between the two banks of the river and in danger of being swept away by the current. Germany demanded fiscal consolidation of its potential monetary union partners on the grounds that balanced budgets limited inflationary pressures. But fiscal consolidation meant painful public-spending cuts and, to the extent that it was half-hearted, did little to inspire confidence and bring down unemployment. For every European for whom Maastricht meant financial and political stability, there was another who associated it with unemployment.

The Collapse of Central Planning

Not only in the West were the final decades of the 20th century marked by difficulties. This was even more true in Europe's east (as the case of East Germany, mentioned above, makes clear). The contradictions of central planning had long been apparent. The growth of material product decelerated between 1950s and 1960s, reflecting a declining rate of

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[86](...continued)
in the eastern states were pushed up to staggering levels of 30, 40 and 50 per cent.

productivity growth. The extensive-growth strategy of throwing more capital at the problem encountered diminishing returns. Between 1971-75 and 1975-80 the incremental capital/output ratio (the additional investment share of national income necessary to produce an additional percentage point of growth) rose in every Eastern European country for which data are available.[87]

The centrally-planned economies broke down completely at the end of the 1980s. With the planned economy unable to deliver the goods, political acquiescence gave way to disaffection and revolt. The limitations of central planning had long been clear, notably the difficulty of formulating a plan that took into account the complex internal wiring of the modern industrial economy and the difficulty of eliciting effort in a system that provided few pecuniary incentives for performance. But these limitations became more apparent in the 1970s and 1980s as the economies of the West evolved away from manufacturing toward services, and away from hierarchically-controlled corporations and Fordist assembly lines toward the decentralized organization and flexible specialization made possible by the development of new information technologies and numerically-controlled machine tools. Technologies facilitating the free flow of information were of course precisely what the totalitarian regimes of Eastern Europe had a particular incentive to suppress. And hierarchical control was all the planners knew how to do. For both reasons, the gap widened between East and West. The mystery is why difficulties already apparent in the 1950s and increasingly evident in the 1960s culminated in crisis conditions only 20 years later. How was growth maintained through the 1970s and into the 1980s, in other words, given that the easy returns to the extensive-growth strategy had been exhausted?

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[87]And in the Soviet Union. United Nations (1980), p.109.

Part of the answer may be that much of the growth recorded in this period was a statistical illusion. Put simply, the numbers were cooked. In addition, Eastern European governments consumed irreplaceable resources to which they attached no value when producing industrial and agricultural goods. Their steel and chemical plants polluted the environment to an extent that would not have been permitted in the West, where political democracy held leaders accountable. In the East, in contrast, recorded output was boosted by pollution that created serious health problems for residents, in a process that could not continue indefinitely.

Insofar as growth persisted, Eastern Europe had the West to thank. With the liberalization of financial markets in Western Europe and the United States and the need to recycle petro-dollars in the wake of the first OPEC oil-price shock, Western money-center banks sought new outlets for their liquidity abroad. They found them in Eastern Europe. The region's cumulative borrowing rose from $11 billion in 1972 to nearly $70 billion by the end of the 1970s. Foreign capital was essential for sustaining the extensive-growth strategy; without it, consumption would have been squeezed even more severely, making necessary cuts in investment to quell unrest.

In economies handicapped by their inability to innovate and to produce state-of-the-art capital goods, foreign borrowing had the further advantage of providing access to Western equipment and technology. Imports of capital goods and technology licenses were proportional to the volume of foreign loans, since Eastern European exporters had little capacity to penetrate Western markets and earn additional revenues.[88] In Hungary, for

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[88]Thus, Eastern European producers' share of the U.S. import market remained constant at less than one per cent throughout the period.

example, the purchase of licenses from the West doubled in value between 1975 and 1978. To further encourage imports of technology, Western companies were permitted to participate in the development of new production facilities. Machinery imports from the West as a share of total imports rose from less than 30 per cent in the mid-'sixties to nearly 40 per cent in the second half of the 1970s.[89] Countries in which electricity-generation capacity had lagged the growth of industrial production imported the equipment needed to modernize the sector. Countries that exported agricultural products imported farm equipment. Where the production of textiles, apparel and leather was important, they imported machinery for those sectors. And in the same sense that these forms of Western assistance helped to sustain the Eastern European system, the curtailment of loans when the debt crisis struck in 1981-82 aggravated the economic difficulties of the East. The only mystery is why banks in the West remained so gung-ho for so long.

They may have been encouraged by the resumption in the early 1980s of piece-meal reform. In contrast to earlier reforms intended to increase the efficiency of planning, this second generation of reforms grafted elements of the market system onto the command economy. Prices, notably in the farm sector, were allowed to respond to the balance of supply and demand. Members were in some cases permitted to leave agricultural cooperatives and to farm individually. East Germany *Kombinate* were granted greater autonomy. In Poland and Hungary, producers were permitted to keep a portion of their receipts in foreign exchange and to use it to finance imports of intermediate inputs and capital goods. In Hungary, the central

[89]Data for the CMEA six, from Koves (1985), p.84, cited in Aldcroft and Morewood (1995), p.162.

bank's credit monopoly was eliminated, and enterprises were authorized to extend loans to one another and to individuals.

Ultimately, economic freedom and political repression proved incompatible. It was infeasible to give individuals increased freedom to decide how and where to work and at the same time to strictly limit what they said. The underground dissemination of dissident material became widespread. Just as *perestroika* (restructuring) and *glasnost* (openness) went hand in hand in the Soviet Union, political liberalization sprang from the seed of economic liberalization throughout Eastern Europe. With the Soviet Union in no position to intervene as it had in Hungary and Czechoslovakia in times past, there was no external force to prevent one thing from leading to another.

The ultimate consequence of political liberalization was thus nothing less than the collapse of central planning. As long as the *Stasi* remained a threatening presence in East Germany and secret police were a force to be reckoned with throughout the region, workers could be intimidated into expending effort. With political liberalization, intimidation as a motivating device was removed, rendering the absence of positive incentives a fatal liability. In East Germany, where the government had long relied on secret-police intimation, 1987 was a poor year for growth, but 1988 was worse, and 1989 was a disaster, the worst in nearly three decades. In the end, little effective police presence remained to keep workers from walking off with machinery and tools. With political liberalization, the central contradiction of state socialism came clear: property that formally belonged to everyone effectively belonged to no one. No one had an incentive to protect it.

Difficulties of Transition

Eastern Europe's transition to the market was anything but smooth. Between 1990 and 1992, output plummeted, followed with a lag by rising unemployment. The fall in real GDP varied across countries, from a “low” of 18 per cent in Hungary and Poland to a high of more than 30 per cent in Bulgaria and Romania (Table 11). Some temporary decline was inevitable: the transition from plan to market meant the reallocation of resources from the production of capital to consumer goods. It meant shifting resources from manufacturing to services. It was easier in the short run to curtail production by heavy industry simply by removing state subsidies than it was to conjure up new consumer goods manufacturing and service sectors. For all these reasons it is hardly surprising that output fell.[90]

Western Europe had faced the same challenge after World War II — to scale back heavy industry and redeploy resources to the production of consumer goods and services -- and had accomplished it without enduring a postwar depression. One difference, to return to our previous discussion, was the Marshall Plan, which had buttressed political stability and economic reform and encouraged the reconstruction of Europe's trade. In the 'nineties, in contrast, there was no Marshall Plan for Eastern Europe. Reform was hesitant, and Eastern Europe's trade, rather than being rebuilt, collapsed with the disintegration of Comecon and the Soviet Union. This last event removed the one residual source of demand for the military hardware and producers goods churned out by the region's heavy industry. A transition that would have been difficult if undertaken by one Eastern European country in isolation was all the more trying as a result of being undertaken throughout the region simultaneously.

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[90]This point is made most rigorously by Atkeson and Kehoe (1997) and Roland and Verdier (1997). To some extent the fall in output was exaggerated by the statistics, which under-recorded new enterprises and recorded as employed persons who in previous years had been paid but had not engaged in productive work.

Above all, reform which had been concerted and comprehensive in the ‘forties was piece-meal and hesitant in the 'nineties. Piece-meal reform was better than no reform, but not by much. Decontrolling some prices but not others meant that sectors producing goods whose prices remained controlled could not afford to purchase increasingly expensive inputs from the rest of the economy. Cutting some subsidies but not others (notably those extended to politically-powerful heavy industry) allowed the economy to continue producing goods whose cost in terms of resources exceeded their market value and meant a continuing drain on the government budget. Finally, political and technical constraints prevented rapid enterprize privatization. Privatization required planning and execution, which took time.[91] So long as enterprise was still owned by the state, managers had little incentive to make profits and avoid losses. This meant budget deficits, which meant pressure on the central bank for money finance and inflation, discouraging foreign investment. While the transition economies of Eastern Europe manifested a wide variety of problems, the point is that these difficulties were all connected. None could be solved without solving the others. Thus, none could be easily solved by partial, hesitant reform.

No country in fact followed a “big bang” strategy of instantaneous liberalization. Throughout Eastern Europe, price decontrol, enterprise privatization and fiscal reform proceeded gradually. Still, there was wide variation in the speed and extent of reform, with Poland doing the most the quickest and Romania and Bulgaria at the other end of the spectrum (Table 12). In countries like Poland, where state subsidies were rapidly withdrawn, there was nothing to prevent output from going into free fall. But comprehensive reform also

[91]Giving away state enterprise to the managers and workers, as was done to a greater extent in many former Soviet republics, was faster but threatened to create an equity-based backlash against reform.

put in place the preconditions for recovery. By 1995 output had recovered nearly to 1989 levels in Hungary, Poland and Slovenia, the three formerly planned economies of Eastern Europe where liberalization (as measured by de Melo et al., 1996) had gone furthest.[92] Radical reform front-loaded the costs (which took the form of a particularly virulent recession), but then paid healthy dividends (in a form of rapid recovery). The only question was whether the cold bath of radical transition, however invigorating economically, might provoke a political backlash, leading previous progress to be rolled back.

5. Europe at the Dawn of the 21st Century

In an economic sense, Europe in 1948 and Europe in 1998 could not look more different. 50 years ago Europe's economy was based on heavy industry, heavy inputs of fixed investment, and a backlog of unexploited technology. Europe today is a high-wage economy producing technologically- and organizationally-sophisticated goods and services using products and processes developed at home. 50 years ago the European economy was divided into closed national economies and riven by an unbridgeable east-west gap. Today, Europe has taken a long step toward establishing an integrated continental market. With the collapse of the Soviet bloc, the east-wide divide has disappeared, leaving Central and Eastern Europe to emulate the economic systems of the West and to seek admission to the European Union. 50 years ago governments pursued economic strategies that sought to manipulate markets and relied on the close collaboration of union federations and employers associations. Today the

[92]Output was nearly as high a share of 1989 levels in the Czech Republic, which had a somewhat lower level of cumulative liberalization but advantages in terms of human capital and industrial structure. It was relatively depressed in Croatia despite a relatively high level of cumulative liberalization, reflecting the effects of war in the former Yugoslavia. See Aslund, Boone and Johnson (1986), Figure 2.

market has escaped the shackles in which it emerged from World War II, limiting the leverage of governments and the social partners. In a world of footloose finance, individual countries find it increasingly difficult to rely on extensive regulation and Keynesian stabilization policy to manage and manipulate domestic economic conditions. Europe has responded by adopting more market-acquiescent policies like those of the U.S. and the U.K. and by vesting additional power in the EU in the hope that a larger transnational entity can regain some control from the market.

At the same time, there existed a powerful set of internal dynamics linking Europe circa 1948 with Europe circa 1998. By its very nature, extensive growth could not last forever. By the 1970s it was played out in both Western and Eastern Europe, and incentives arose to shift to intensive growth. In the West, where there existed a market system, this shift was navigated successfully, although not without a secular decline in the growth rate. In the East, where incentives were lacking, the inability to respond to the imperatives of intensive growth led to nothing less than the collapse of central planning and to the reintegration of the region into the Western European economy.

A second source of internal dynamics linking the Europe of 1948 with the Europe of 1998 emanated from the postwar social compact in which labor deferred wage increases in return for management plowing profits into investment. As labor markets tightened in the late 1960s and early 1970s, it became difficult to maintain labor's acquiescence. Increased consumption could not be deferred indefinitely. More fundamentally, trading current sacrifices for future gains was attractive only so long as wage moderation and high investment promised significantly higher future living standards. As the technological backlog came to be played out in the late 'sixties and early 'seventies and the return on investment declined, this tradeoff

became less attractive, tempting the social partners to renege. Governments sought to buttress the bargain by promising increased and health and unemployment payments and increased social security stipends in return for wage restraint. These policies succeeded in the short run, but in the long run they contributed to the bloated public sectors and the high tax rates and over-generous benefits that largely explain today's high European unemployment.

The third source of dynamics linking Europe in 1945 with Europe today was regional integration. For fully half a century this has been European policymakers' response to whatever problems they faced. The process was set in motion after World War II by an exceptional combination of circumstances: nationalism had been discredited, there existed a strong indigenous strand of integrationist thought, and the United States lent external support. Once started it fed on itself. The European Coal and Steel Community created a transnational policy elite and a set of institutions with the capacity to push through and manage a customs union. The Common Market, by increasing the volume of intra-European trade, created a constituency for the Single Market. And the Single Market, which required the removal of capital controls, created pressure for the creation of a single currency. These dynamics pushed Europe forward, albeit not without interruptions, toward progressively deeper integration.

In political economy as in physics, every action provokes a reaction. As the century draws to a close, the progress of integration has provoked a negative reaction from those who feel their autonomy threatened by a vast EU bureaucracy. The welfare state that held the postwar social compact in place is being scaled back in the hope that a more flexible labor market will bring lower unemployment. Optimism about Europe's innovative capacity has succumbed to doubts about the continent's capacity to match the United States in the development and application of new information technologies. All that can be said with

confidence is that this too will pass. Tomorrow’s problems will be different from today’s, just as today’s differ from yesterday’s. But almost certainly they will be products of the same dynamic processes that propelled the progress of the European economy over the second half of the 20th century.

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Table 1. Phases of Growth, 1820-1992
(annual average compound growth rate)

	1820-70	1870-1913	1913-50	1950-73	1973-92	1820-1992
	GDP					
Western Europe	1.7	2.1	1.4	4.7	2.2	2.2
Southern Europe	1.0	1.5	1.3	6.3	3.1	2.1
Eastern Europe	1.6	2.4	1.6	4.7	-0.4	2.0
World	1.0	2.1	1.9	4.9	3.0	2.2
	GDP per Capita					
Western Europe	1.0	1.3	0.9	3.9	1.8	1.5
Southern Europe	0.6	1.1	0.4	4.9	1.7	1.4
Eastern Europe	0.7	1.0	1.2	3.5	1.1	1.1
World	1.3	1.3	0.9	2.9	1.2	1.2

Source: Maddison (1995).

Table 2. Per Capita Real GDP Growth in 56 Countries, 1820-1992
(annual average compound growth rates)

	1820-70	1870-1913	1913-50	1950-73	1973-92
12 Western European Countries					
Austria	0.7	1.5	0.2	4.9	2.2
Belgium	1.4	1.0	0.7	3.5	1.9
Denmark	0.9	1.6	1.6	3.1	1.6
Finland	0.8	1.4	1.9	4.3	1.6
France	0.8	1.5	1.1	4.0	1.7
Germany	1.1	1.6	0.3	5.0	2.1
Italy	0.6	1.3	0.8	5.0	2.4
Netherlands	1.1	0.9	1.1	3.4	1.4
Norway	0.5	1.3	2.1	3.2	2.9
Sweden	0.7	1.5	2.1	3.1	1.2
Switzerland	n.a.	1.5	2.1	3.1	0.8
UK	1.2	1.0	0.8	2.5	1.4
Arithmetic Average	0.9	1.3	1.2	3.8	1.8
5 South European Countries					
Greece	n.a.	n.a.	0.5	6.2	1.5
Ireland	1.2	1.0	0.7	3.1	2.7
Portugal	n.a.	0.5	1.2	5.7	2.1
Spain	0.5	1.2	0.2	5.8	1.9
Turkey	n.a.	n.a.	0.8	3.3	2.6
Arithmetic Average	n.a.	0.9	0.7	4.8	2.2
7 East European Countries					
Bulgaria	n.a.	n.a.	0.3	5.2	-1.4
Czechoslovakia	0.6	1.4	1.4	3.1	-0.1
Hungary	n.a.	1.2	0.5	3.6	0.0
Poland	n.a.	n.a.	n.a	3.4	-0.6
Romania	n.a.	n.a.	n.a	4.8	-1.6
USSR	0.6	0.9	1.8	3.4	-0.4
Yugoslavia	n.a.	n.a.	1.0	4.4	-0.5
Arithmetic Average	n.a.	1.2	1.0	4.0	-0.8

Source: Maddison (1995).

Table 3. Production in Western Europe (1938 = 100)

Country	1947	1948	1949	1950	1951	Percentage increase 1951 over 1947
Turkey	153	154	162	165	163	7
Sweden	142	149	157	164	172	21
Ireland	120	135	154	170	176	46
Denmark	119	135	143	159	160	35
Norway	115	125	135	146	153	33
UK	110	120	129	140	145	32
Belgium	106	122	122	124	143	33
Luxembourg	—	132	132	139	168	—
France	99	111	122	123	138	39
Netherlands	94	114	127	140	147	56
Italy	93	99	109	125	143	54
Greece	69	76	90	114	130	88
Austria	55	85	114	134	148	269
Germany (Federal Republic)	34	50	72	91	106	312
All participating countries	87	99	112	124	135	55
All participating countries exclusive of Germany (Federal Republic)	105	119	130	138	145	37

Source: US President, *First Report to Congress on the Mutual Security Program* (31 December 1951), p. 75. Drawn from Brown and Opie (1953), p. 249.

Table 4. The Contribution to Growth of Gross Domestic Product in Nine Western European Countries of Labor, Capital and Technical Progress, 1949-1959

Country	*Compound annual percentage rate of growth*			Estimated contribution to growth of GDP of:		
	Labour force (1)	Capital stock (2)	GDP trend (3)	Labour (4)	Capital (5)	Technical progress (6)
Western Germany[a]	1.6	6.0	7.4	1.1	1.8	4.5
Italy	1.1	3.2	5.9	0.8	1.0	4.1
Yugoslavia	1.1	4.9	5.5	0.8	1.5	3.2
Netherlands	1.2	4.8	4.8	0.8	1.4	2.6
France	0.1	3.4	4.5	0.1	1.0	3.4
Norway	0.3	4.6	3.4	0.2	1.4	1.8
Sweden	0.5	2.0	3.4	0.3	0.6	2.5
Belgium	0.3	2.6	3.0	0.2	0.8	2.0
United Kingdom	0.6	3.1	2.4	0.4	0.9	1.1

Source: Extract from United Nations (1964). [a] 1950-1959

Table 5. Intra-Trade as Percentage of Total Exports

	All commodities		*Primary products*		*Manufactures*	
	1955	1969	1955	1969	1955	1969
Europe	61	73	81	82	54	70
Eastern Europe	61	61	64	48	60	68
Western Europe	56	66	72	79	49	63
EEC	33	48	44	63	29	45
EFTA	18	24	31	30	14	23
EFTA (excluding United Kingdom) .	14	21	8	15	18	22

Note: The larger the region the greater the proportion of intra-trade.

Source: United Nations (1972).

Table 6. Europe and United States: Output, Employment and Labor Productivity
(annual percentage compound rates of growth)

Country	Output (GDP at 1963 f.c.)		Employment		Output per person employed	
	1950-1952 to 1958-1960	1958-1960 to 1967-1969	1950-1952 to 1958-1960	1958-1960 to 1967-1969	1950-1952 to 1958-1960	1958-1960 to 1967-1969
Austria	5.7	4.5	0.4	–0.2	5.3	4.7
Belgium	2.5	4.5	0.2	0.6	2.4	3.8
Denmark	3.2	4.7	1.0	1.2	2.2	3.4
Federal Republic of Germany	7.5	5.1	2.2	0.3	5.2	4.8
Finland	4.3	4.6	1.0	0.9	3.3	3.7
France	4.3	5.5	0.0	0.7	4.4	4.8
Ireland	0.8	4.0	–1.6	0.1	2.5	3.9
Italy	5.3	5.5	0.7	0.2	4.6	5.3
Netherlands	4.5	5.5	1.1	1.2	3.4	4.3
Norway	3.0	4.9	0.0	0.6	3.1	4.3
Sweden	3.6	4.5	0.2	0.4	3.4	4.1
Switzerland	4.0	4.4	1.4	1.8	2.6	2.5
United Kingdom	2.4	2.9	0.5	0.4	1.8	2.5
Industrial Western Europe	4.5	4.7	0.8	0.5	3.6	4.2
Greece	5.6	6.3	0.9	1.0	4.7	5.3
Portugal	4.0	6.1	0.4	0.0	3.6	6.2
Spain	5.2	7.0	1.0	0.6	4.1	6.4
Turkey	5.1	5.2	..	..	..	..
Yugoslavia	6.4	6.1	0.5	1.1	5.9	5.0
Southern Europe	5.3	6.3	..	..	..	..
Southern Europe ex. Turkey	5.4	6.6	0.8	0.7	4.6	5.8
Bulgaria	6.4	7.4	0.7	0.4	5.7	7.0
Czechoslovakia	5.7	4.8	1.0	1.3	4.7	3.5
German Democratic Republic	7.1	4.5	0.7	0.1	6.4	4.4
Hungary	4.1	5.5	1.2	0.7	2.9	4.8
Poland	6.2	6.0	1.7	1.9	4.4	4.0
Romania	6.3	8.0	1.4	0.4	4.8	7.6
Soviet Union	8.3	6.9	1.9	2.1	6.3	4.7
Eastern Europe	7.6	6.5	1.7	1.7	5.8	4.7
United States	2.8	4.6	0.5	2.1	2.3	2.4

Source: United Nations (1972).

Table 7. Real GDP Growth and its Components, 1960-69

	Annual Percentage Rate of Growth			Estimated contribution to growth of GDP		
	Labour Force	Capital Stock[3]	Real GDP	Labour	Capital	Technical Progress
GRC	-0.9	6.6	6.8	-0.7	2.0	5.5
ITL[2]	-0.3	5.3	5.6	-0.2	1.6	4.2
FRA	0.8	5.4	5.3	0.6	1.6	3.2
BEL[1]	0.3	5.2	4.7	0.2	1.6	3.0
GER	0.4	6.0	4.7	0.3	1.8	2.6
SWE[1]	0.5	4.1	4.3	0.3	1.2	2.8
NOR[1]	1.0	3.9	4.1	0.7	1.2	2.2
FIN[1]	0.2	4.9	4.0	0.1	1.5	2.4
GBR	0.3	4.4	3.1	0.2	1.3	1.6

Sources : OECD Economic Outlook database; *Flows and Stocks of Fixed Capital*, OECD; *World Economic Outlook*, IMF

Notes on Capital Stock
1. Belgium, Finland, Norway, Sweden : average over 1963-69.
2. Italy : average over 1961-69.
3. Net total capital stock at constant prices for all countries except Sweden (gross total capital stock at constant prices).

Note: growth rates calculated as the difference of the log of the levels.

Note on Estimated contributions to growth of GDP:
1. Contribution by Labour = 0.7 * Average annual growth rate of the labour force
2. Contribution by Capital = 0.3 * Average annual growth rate of the capital stock
3. Contribution by Technical Progress is calculated as a residual

Table 8. Real GDP Growth and its Components, 1970-79

	Annual Percentage Rate of Growth			Estimated contribution to growth of GDP		
	Labour Force	Capital Stock[2]	Real GDP	Labour	Capital	Technical Progress
GRC	0.2	6.1	5.2	0.1	1.8	3.2
NOR	1.6	4.4	4.3	1.2	1.3	1.9
ITL	0.7	3.8	3.8	0.5	1.1	2.1
FIN	1.1	4.3	3.8	0.7	1.3	1.7
FRA	1.0	5.1	3.6	0.7	1.5	1.4
BEL	0.7	4.3	3.5	0.5	1.3	1.7
NED	0.6	3.1	3.3	0.4	0.9	2.0
GER	0.4	3.8	3.1	0.3	1.1	1.7
DEN[1]	1.0	3.1	2.5	0.7	0.9	0.8
SWE	1.0	3.5	2.4	0.7	1.0	0.6
GBR	0.5	3.2	2.4	0.3	1.0	1.1

Sources : OECD Economic Outlook database; *Flows and Stocks of Fixed Capital* , OECD; *World Economic Outlook* , IMF.

Notes on Capital Stock
1. Denmark : 1972-79.
2. Net total capital stock at constant prices for all countries except Sweden (gross total capital stock at constant prices) and the Netherlands (gross capital stock of the business sector).

Note: growth rates calculated as the difference of the log of the levels.

Note on Estimated contributions to growth of GDP:
1. Contribution by Labour = 0.7 * Average annual growth rate of the labour force
2. Contribution by Capital = 0.3 * Average annual growth rate of the capital stock
3. Contribution by Technical Progress is calculated as a residual

Table 9. Unemployment and Employment in Selected European Economies, 1973-1979 and 1979-1983/85

	Average Annual Unemployment Rate	
	1973-79	1979-85
Austria	1.7	3.0
FRG	2.9	6.0
United Kingdom	1.7	10.3
Sweden	2.0	2.7
Belgium	5.8	11.6
Switzerland	0.4	0.6
France	4.3	8.0
Italy	6.5	9.0
Japan	1.8	2.4
Norway	1.8	2.4
Netherlands	4.5	10.3

Source: Scharpf (1971).

Table 10. Real GDP Growth and its Components, 1980-89

	Annual Percentage Rate of Growth			Estimated contribution to growth of		
	Labour Force	Capital Stock[2]	Real GDP	Labour	Capital	Technical Progress
FIN	0.6	3.0	3.6	0.5	0.9	2.3
NOR	1.1	3.3	2.7	0.7	1.0	0.9
GBR	0.8	2.1	2.4	0.5	0.6	1.2
ITL[1]	0.7	2.5	2.4	0.5	0.8	1.1
FRA	0.6	2.9	2.2	0.4	0.9	0.9
SWE[1]	0.5	2.4	2.1	0.4	0.7	1.0
NED	1.0	1.8	1.8	0.7	0.5	0.6
GRC	1.6	2.8	1.8	1.1	0.8	-0.2
DEN	0.9	1.1	1.8	0.6	0.3	0.8
GER	0.8	2.1	1.8	0.6	0.6	0.6
BEL	0.2	2.0	1.7	0.1	0.6	1.0

Sources : OECD Economic Outlook database; *Flows and Stocks of Fixed Capital* , OECD; *World Economic Outlook* , IMF.

Notes on Capital Stock
1. Italy, Sweden : 1981-89
2. Net total capital stock at constant prices for all countries except the Netherlands (gross capital stock of the business sector).

Note: growth rates calculated as the difference of the log of the levels.

Note on Estimated contributions to growth of GDP:
1. Contribution by Labour = 0.7 * Average annual growth rate of the labour force
2. Contribution by Capital = 0.3 * Average annual growth rate of the capital stock

Table 11. Output decline in Post-communist Countries

Index, except where indicated[a]

Country and classification	*Year of most intense reform*	*Change from 1989 to year of most intense reform*[b]	*Change in year of most intense reform*[b]	*Level 2 years later*	*Level at end 1994*	*Level at end 1995*
Non-socialist						
Radical reform						
Poland	1990	. . .	-11.6	84.3	91.9	97.4
Czech	1991	-1.0	-14.2	78.6	80.7	83.8
Republic	1991	-2.5	-14.5	74.3	77.9	81.4
Slovakia	1992	-35.0	-7.2	72.1	72.1	77.7
Albania						
Gradual reform						
Hungary	1990	. . .	-3.5	82.5	83.5	84.2
Bulgaria	1991	-9.1	-11.7	72.3	73.3	74.8
Ex-communist						
With democratization						
Romania	1990	. . .	-5.6	75.7	78.6	81.9
Former Yugoslavia						
Macedonia	1990	. . .	. . .	. . .	. . .	. . .
Croatia	1990	. . .	-8.5	67.8	66.2	68.5
Other						
Slovenia	1990	. . .	-3.4	82.8	88.5	92.9

[a]Output is an index of GDP. 1989 100

[b] Percentage change

Source: Aslund, Boone and Johnson (1996).

Table 12. Liberalization in Post-Communist Countries

Index, except where indicated[a]

Country and classification	*Year of most intense reform*	*Prior level*	*Change in year of most intense reform*[b]	*Change over next 2 years*[b]	*Level in 1994*	*Level in 1995*
Non-socialist						
Radical reform						
Poland	1990	0.24	0.44	0.14	0.86	3.4
Czech	1991	0.16	0.63	0.11	0.90	3.6
Republic	1991	0.16	0.63	0.07	0.86	3.4
Slovakia	1992	0.24	0.42	0.04	0.70	2.6
Albania						
Gradual reform						
Hungary	1990	0.34	0.23	0.21	0.86	3.6
Bulgaria	1991	0.19	0.43	0.04	0.70	2.6
Ex-communist						
With democratization						
Romania	1990	0.00	0.22	0.23	0.71	2.6
Former Yugoslavia						
Macedonia	1990	0.41	0.21	0.06	0.78	2.7
Croatia	1990	0.41	0.21	0.10	0.86	2.9
Other						
Slovenia	1990	0.41	0.21	0.16	0.82	3.3

[a] The World Bank index is a weighted average of change from 0 to 1 along three dimensions: internal prices, external markets, and private sector entry, it does not include the level of inflation. The EBRD index (used only in the last column)

[b] Difference in index levels.

Source: Aslund, Boone and Johnson (1996).