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Institutional Prerequisites for Economic Growth: Europe After World War II

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I. Introduction

The quarter century that ended around 1973 was for Western Europe a golden age of economic growth. Real GDP rose nearly twice as rapidly as over any comparable period before or since.[1] Understanding the sources of this admirable performance would shed important light on the causes of the growth slowdown through which Europe has suffered subsequently.

Part of the explanation is surely "catch-up," as Abramovitz (1986) emphasized. The gaps that had opened up vis-a-vis both the United States and Europe's own prewar trend as a result of two decades of depression and war offered considerable scope for rapid growth after 1945. But cross-section regressions relating growth rates to per capita GDP differentials show that catch-up explains only part of the acceleration: purged of catch-up, growth from 1950 through 1973 was still more than 50 per cent faster than subsequently.[2] And even insofar as catch-up is the explanation, understanding what enabled post-World War II Western Europe to so effectively exploit the opportunity for catch-up can have important implications for countries in Eastern Europe and the developing world currently seeking to join the "convergence club."

Aside from catch-up, the proximate cause of postwar Europe's growth miracle was high investment. European investment rates were nearly twice as high in the 1950s and 1960s as either before or after.[3] Regressions for Maddison's 16 advanced countries suggest that an extra 10 points on the investment rate translate into upwards of half a point on the growth rate.[4] Together with catch-up, this gets us a long way toward "explaining," in an accounting sense, the rapid growth of the period.

Two things then remain to be understood: what made high investment rates possible, and what made the investment so productive? This directs our attention to the other elements of the postwar growth recipe: wage moderation and export growth. Wage moderation stimulated both the supply and demand for investment -- demand by making investment profitable, supply by making available the profits to finance it. The openness of European economies and the growth of their exports, due mainly to the expansion of intra-European trade, allowed investment to be allocated to the sectors where its productivity was highest. Nations could exploit their comparative advantage, in other words, without being constrained by the composition of domestic demand (Bhagwati 1988).

Having stripped another layer off the onion, what must next be explained is wage moderation and the growth of trade. Both were exceptional achievements by the standards of the interwar period, when exports stagnated and wage pressure was intense.[5] A simple explanation for the contrast is that post-WWII policymakers and market participants learned from the disasters of the interwar years and determined not to repeat them. But the desire for a better outcome may not suffice; mechanisms are required to achieve it. The mechanisms created in post-WWII Europe to secure rapid economic growth were a new set of domestic and international institutions.

II. Domestic Institutions

van der Ploeg (1987) analyzes growth and distribution in a model of capital and labor.[6] Welfare is maximized when capitalists and workers both defer current compensation in order to reap future gains. Workers moderate their wage demands in order to make profits available to industry. Capitalists restrain dividend payout in order to reinvest those profits. More investment stimulates growth, raising the future incomes of both capitalists and workers. In the cooperative equilibrium in which both workers and capitalists exercise restraint, the costs of foregoing current consumption are dominated by the benefits of the induced increase in future incomes.

But this cooperative equilibrium may be impossible to sustain, for the sequencing of events introduces a time-inconsistency problem. Workers must move first, restraining wages now in order to make profits available to capitalists for reinvestment later. But once the wage restraint has occurred, capitalists are even better off if they renege on their agreement to invest the profits, paying them out as dividends instead. Since investment is no higher than if workers had failed to moderate their wage demands, they have no incentive to be moderate. In this Nash equilibrium, workers pursue wage increases, management pays out profits as dividends, and investment and growth are depressed. van der Ploeg shows how a contract that binds capitalists to invest profits also induces workers to exercise wage restraint -- in other words, how it overcomes the problem of dynamic inconsistncy -- rendering them both better off.

In post-WWII Western Europe, institutions were created to enforce this implicit contract and eliminate the time-inconsistency problem.[7] One set of institutions monitored compliance and disseminated evidence of noncooperative behavior; by reducing the likelihood that shirking on the agreement would go undetected, this reduced the returns to doing so. Workers were allowed to participate in a growing range of management decisions. Unions and employer associations were encouraged to exchange information on wage and investment decisions through government-sanctioned peak associations. The representation of labor unions on advisory and administrative committees of industry and government was made obligatory.

Many examples of these new post-WWII developments could be cited. In France, for example, labor-management plant committees ("comites d'enterprise) were established in the late 1940s. Their existence was required by law for all enterprises employing 50 or more workers, and they possessed consultative powers over production and investment decisions (Lorwin 1954). In Germany, work-place codetermination, giving labor input into the formulation of firms' investment strategies, was adopted as a national model.[8] Even in Britain, not renowned for labor/management harmony, the tripartism of World War II (regular consultation between labor, management and government) survived into the postwar period, with the Trades Union Congress cooperating with management and government (Flanagan et al. 1983).

A second set of institutions helped to lock in the bargain by creating "bonds" that would be lost in the event of reneging.[9] Workers were extended public programs of support for the unemployed, the ill and the aged. Capitalists were provided limited forms of industrial support (selective investment subsidies, price-maintenance schemes, orderly marketing agreements) for sectors that would have otherwise experienced competitive difficulties. Schedules limiting rates of profit taxtion were adopted in return for capitalists plowing back earnings into investment (Middlemas 1986). This web of interlocking agreements -- what can be called, for want of a better name, the "social market economy" -- functioned as an institutional exit barrier. As a commitment technology it increased the cost of reneging on the sequence of concessions and positive actions that fueled the postwar growth boom. It delivered the wage moderation and high investment that was the basis of the golden age.

III. International Institutions

For deferring consumption to be worthwhile, investment had to be productive. To put it another way, for investment to stimulate growth, there had to be a market for the goods produced by dometic industries whose capacity was augmented and whose efficiency was enhanced. Here the expansion of trade was key. International trade, and intra-European trade in particular, allowed countries to specialize in the production of goods in which they had a comparative advantage without regard to any limits on the demand for those products existing at home.

But the expansion of trade created further coordination and commitment problems. Restructuring the economy along export-oriented lines was costly. Sinking the costs of reallocating resources along lines of comparative advantage could turn out to be an expensive mistake if one's trading partners reneged on their commitment to openness. Thus, before reorienting policy in this direction, governments had to be convinced that their partners' commitment to openness was permanent.

This problem of collective action, though relevant to all European countries, was particularly pressing in the case of Germany. Other countries were especially skeptical of its commitment to openness, given memories of the Schachtian policies of the 1930s and the second world war (Berger and Ritschl 1993). Germany had been the continent's dominant supplier of capital goods and the single largest demander of raw materials produced by other European countries. Institutions which rendered credible Germany's commitment to intra-European trade could therefore go a long way toward reconstituting traditional patterns of comparative advantage and toward curing the dollar shortage (the balance-of-payments deficits of European countries vis-a-vis the

U.S., due mainly to their excess demand for capital goods).

A solution to these commitment and coordination problems was provided by the European Payments Union (EPU) and the European Coal and Steel Community (ECSC). As a condition for participating in the payments union, countries agreed to a schedule of intra-European trade liberalization. By February 1951, less than a year after the EPU went into effect, all existing trade measures were to be applied equally to imports from all member countries. Participants were required to reduce trade barriers by one half initially, and then by 60 and 75 per cent. The share of quota-free intra-European trade was to rise to 90 per cent by the beginning of 1955. Countries failing to comply with this schedule or employing policies to manipulate the terms or volume of trade in undesirable ways could expect to be denied access to EPU credits. Operating the EPU required creating a set of institutions (the Organization for European Economic Cooperation, which worked in tamdem with the Bank for International Settlements) to monitor compliance and impose sanctions. Not incidentally, U.S. Marshall Plan administrators supported the EPU, providing $350 million of working capital to finance its operation.

Drawings on the system were embedded in a mechanism minimizing the likelihood that a country could use EPU credits to exploit its partners by remaining in persistent deficit. No conditions were attached to a country's drawings on its quota of 15 per cent of its intra-EPU trade. But additional credits could be obtained only if a country agreed to conditions set down by the EPU's Managing Board. Officials of governments receiving exceptional credits were required to appear at the monthly meeting of the Board for questioning and to submit memoranda regarding their progress for its review. That Europe and the EPU depended on Marshall aid reduced the likelihood that a debtor would renege on its agreement with the Managing Board and fail to take corrective action to eliminate its deficit.

For those concerned to construct a commitment technology, the EPU was preferable to unilateral current-account convertibility, the other basis on which postwar Europe's trade might have been rebuilt. Convertibility was not technically infeasible, but, as a unilateral policy, it was too easy to reverse (Eichengreen 1993a). It lacked the multilateral surveillance and conditionality that rendered the EPU an effective institutional barrier to exit.[10]

The ECSC further enhanced the credibility of Germany's commitment to openness by ensuring the French steel industry access to the German coal that was indispensable to its survival and by providing German steel producers guaranteed access to French iron ore. Coal and steel were viewed, rightly or wrongly, as essential to national security and to the rehabilitation of Europe's industrial base. The ECSC banned price discrimination between domestic and foreign customers and established a joint High Authority to monitor compliance with the terms of the agreement. As Gillingham (1993) puts it, the ECSC "was based on a new idea, supranationality. Membership required transference of sovereign powers to a new European authority." It is hard to imagine a more effective barrier to exit.

The EPU and the ECSC were just two of the international agreements committing countries to free international trade. Complementary initiatives included the Bretton Woods institutions and the GATT. But the EPU and the ECSC were specially tailored to Europe's needs; they ensured that the experience of the post-WWI period, when the commitment to openness proved ephemeral, was not repeated.

IV. Conclusion

European economic growth in the quarter of a century that ended in 1973 outstripped growth in any period of comparable length before or since. The elements of Europe's growth miracle -- wage moderation, high investment and rapid export growth -- were delivered by a tailor-made set of domestic and international arrangements -- on the domestic side the social market economy, on the external side international agreements and supranational institutions -- that solved problems of commitment and cooperation that would have otherwise hindered the resumption of growth.

Why then did growth slow after 1971? One possibility is that Europe's postwar institutions eventually succumbed to problems of capture; as emphasized by Olson (1982), special interest groups may have learned over time to manipulate their operation in ways that hampered the efficiency of resource allocation. Other prerequisites for wage moderation, from elastic labor supplies (Postan 1964, Kindleberger 1965) to the stabilizing influence on price expectations of the Bretton Woods monetary anchor (Eichengreen 1993b), progressively weakened. The EPU and the ECSC were superseded by the General Agreement on Tariffs and Trade, and once tariff barriers were cut the GATT proved less successful at reducing the nontariff barriers to trade that remained. Eventually, the institutional framework for European economic growth constructed after the war ceased to function.

Footnotes

1. The unweighted average of the annualized growth rate of GDP per hour worked for 8 European countries was 4.4 per cent in 1950-73 but only 2.4 per cent in 1922-37 and 2.1 per cent in 1973-88. Calculated from Crafts (1992), Maddison (1991), Table 1 and Boltho, Table 1.1.

2. Crafts (1992) presents calculations of the growth bonus due to catch-up vis-a-vis the U.S. and "spring-back" to prewar levels for the same 8 European countries, finding that purged of catch-up and spring-back, growth rates decelerated from 3.1 per cent in 1950-73 to 1.9 per cent in 1979-88.

3. The estimates of Maddison (1976) show the investment rate in Western Europe rising from 9.6 per cent in 1920-38 to 16.8 per cent in 1950-70.

4. See for example Crafts (1992), Table 2.

5. Broadberry (1993) shows that wage pressure was more intense before than after World War II.

6. A similar model, whose precise specification is somewhat more remote to the problem considered here, is Grout (1984).

7. The notion that institutions can be used to create a credible commitment is prominent in the work of North and Weingast, among others. See for example North (1993) and North and Weingast (1989).

8. McCain (1989) provides a model of codetermination as a solution to a game between labor and management, where cooperation leads to higher investment.

9. On bonding see Schelling (1960).

10. Some might argue that IMF conditionality could have provided an effective substitute. But the Fund's failure to prevent France from adopting multiple exchange rates in the late 'forties or Canada from resorting to floating in the 'fifties raises questions about the effectiveness of IMF sanctions.

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