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THE POLITICS OF COMPARATIVE ADVANTAGE AND THE EASTERN GERMAN STATES

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Foreign trade is not a specialized activity for a few who might engage in it, but it is the very core and even the precondition of our economic and social order.

—Ludwig Erhard

Introduction

The concept of comparative advantage is one of the simplest, but most often misunderstood, principles of economics. Succinctly stated, a country possesses a comparative advantage in a good if the opportunity cost of producing that good in terms of other goods is lower in that country than it is in other countries. If a comparative advantage is held, that country should then produce and trade that good. A closely related concept is that of absolute advantage. A country has an absolute advantage in producing a good if it can do so using fewer resources than another country. (Krugman, p. 18) While it is true that a country need not have an absolute advantage in the production of any goods, it is a proven economic fact that each country must have a comparative advantage. Yet, as Paul Krugman and Maurice Obstfeld note in their textbook *International Economics*, even the *Wall Street Journal*, the epitome of economic and financial reporting, published an article making the emphatic claim that “many small countries have no comparative advantage in anything.” ("Survey...," p. 16)

This misconception was observed during the Martindale Center’s excursion to Germany in the spring of 1997, as I attempted to learn more about the comparative advantage of Eastern Germany. During this trip, scholars and academics were asked to provide their insights on this issue. On several occasions,
statistics were quoted as “evidence” that no comparative advantage existed, such as the fact that only 3 percent of Eastern German manufacturers’ output is easily tradable. (“The Eagle’s Embrace,” p. 21)

In this essay, I will show that Eastern Germany does indeed reflect the long-standing rule of comparative advantage, despite the near constant political turmoil that has characterized its role in world trade over the last half-century. The sources of comparative advantage will be tracked over time, from the era of communist occupation, to Eastern Germany’s transition to reunification and, lastly, to a unified Germany in 1995.

Basis of Eastern German Comparative Advantage: 1950s and 1960s

The development of a comparative advantage in the Eastern German States during the years of communist rule, 1948-1989, has little, if any, basis in economic theory. Instead, it was determined by the strong arm of Soviet rule. Cold War strategy and the amorphous political and economic landscape of the Communist Bloc took precedence over productivity advantages or favorable wage levels in determining the direction and composition of trade.

Immediately following the establishment of the German Democratic Republic (GDR), the Soviet Union began a campaign of forced economic development. The GDR rapidly became an industrialized economy, fueled by imports of steel and crude oil from the Soviets. (Snell, pp. 558-59) To be sure, the Eastern States did contain a healthy industrial base prior to Soviet control. In fact, the East possessed a higher per capita industrial output level than the West. Most of this output was focused on consumer goods and chemicals, which were procured from large reserves of brown coal. (Snell, p. 558)

The Soviets reconfigured the GDR’s industrial orientation to meet the immediate needs of the other Eastern command economies. To measure the degree of the economy’s reconfiguration, consider that in 1956 the railroad rolling stock, shipbuilding, and metallurgical equipment industries were operating at, respectively, four times, fifteen times, and eleven times their 1939 levels. (Snell, p. 571) During the 1950s, these changes required the GDR to sacrifice consumption for a larger amount of fixed capital investment. (Snell, p. 562) With this increased investment, the GDR became a catalyst for turning the ever-increasing supplies of Soviet steel into machinery and heavy industrial equipment. (Snell, p. 558) This led to a consistent trade surplus in machinery, equipment, transport, industrial consumer goods, and chemicals. (Smyser, p. 225) Obviously, with a large proportion of Soviet resources being devoted to industrial output, the consumer goods and agricultural sectors suffered from a lack of investment. (Snell, p. 576)

In the context of free trade, comparative advantage theory dictates that, if industrial goods were being traded by East Germany, then productivity levels must have been high enough to allow those goods to be produced at a lower cost. Yet, the GDR’s industrial production was decidedly inefficient and wasteful due to a focus on increasing output amidst burgeoning costs. For example, consumption of steel in the GDR rose much faster than machinery production due to obsolete process designs and the installation of the outmoded equipment. (Snell, p. 582) Another sign of inefficiency was the high inventory levels of East German firms. These stocks were composed of a substantial volume of unsalable goods. This caused industrial inventories to increase at a rate of nine percent per year from 1955 to 1965, faster than that in any other European country. (Snell, p. 583) Furthermore, because trade relationships among Eastern Bloc nations were managed by the Soviets through the Council for Mutual Economic Assistance (CMEA), GDR producers had no incentive to achieve efficiencies. They did not have to compete, either domestically or internationally, or develop and defend any markets. (Smyser, p. 151)

Development of Trade During the 1970s and 1980s

Three-quarters of all East German trade was conducted with the Soviet Union and Eastern Europe during the era of communist rule. The late 1970s and early 1980s, however, ushered in significant changes to the GDR's
trade relations. During this period, the Soviet Union was forced to limit its deliveries to the countries within the Eastern Bloc. Because these deliveries supplied the steel and oil required to operate its industries, the lapse in their provision caused the GDR economy to grind to a halt. Furthermore, the consistently lower prices under which the GDR was able to import goods from other Eastern Bloc nations began to disappear. Because the GDR was an inefficient industrial producer, as previously noted, the prices of its exports on foreign markets declined. The combination of these two factors thus generated a rapid deterioration in the GDR’s terms of trade. (Melzer, p. 147)

In order to generate higher prices for its exports on international markets, Eastern Germany was forced to redevelop what had become a dilapidated economy under the overbearing output demands of the Soviet Union. However, as just described, the supply link to the Soviets was thinning out, casting doubt upon its ability to help in this effort. The GDR had no choice but to look toward the West. East Germany accepted extensive credits from Western countries to import the know-how needed for it to modernize. This caused the GDR’s foreign debt levels to rise to problematic levels, reaching $14 billion by the early 1980s, $10 billion of which was owed to Western banks. (Melzer, p. 134)

The effort to modernize yielded minimal results, however, primarily because the GDR existed as a centrally planned economy (CPE). CPEs generally are not given to experiencing gains in efficiency. Because directions are given from above and executed from below, opportunities for innovation at the operational level are meager. Also, with wage levels essentially frozen in the GDR, motivating workers in an effort to increase productivity was difficult. Lastly, the GDR’s policy goal of maintaining full employment virtually assured low productivity because of both the diseconomies of scale that developed in an attempt to employ too many people and the lack of competition for each position. If any advancements were made in the productivity of capital, employment rates would not decline accordingly, resulting in the under-utilization of labor. Even though the GDR drastically improved its programs to train its labor, there was often a disparity between worker qualifications and positions held. (Melzer, p. 165)

In order to reduce its foreign indebtedness, East Germany was forced to accept economic austerity by reducing imports from the West. (Melzer, p. 148) A dilemma materialized. How could the GDR obtain, at an acceptable price, the imports it required to operate its industries when the advantages of trade with the East had been limited and any further imports from the West would result in unrealistic levels of debt? How could foreign debt be reduced when East German goods were not well received in Western markets? The GDR did not have to look far for the solution — the expansion of trade with the Federal Republic of Germany (FRG).

East Germany was able to acquire badly needed inputs without exacerbating its foreign debt position due to several key features of inter-German trade. By shifting its focus from other Western nations to West German suppliers, the GDR could take advantage of interest-free swing credits. These credits, common in bilateral exchange, are extended by banks of participating countries to guarantee the reciprocal flow of payments despite inevitable temporary imbalances in trade accounts. Therefore, the GDR was able to purchase goods from the FRG throughout the early 1980s without immediately selling goods of equivalent value. By the end of 1982, the FRG had become the GDR’s second biggest trading partner next to the Soviet Union. (Garland, p. 174) In addition to preferential trade agreements, a number of contractual arrangements were reached between the East and West that resulted in a large inflow of D-mark hard currency to the GDR. These arrangements included the payment of transit fees to the GDR, investment in East German roads and canals, and payment for the services of trash and sewage removal. (Garland, p. 173)

East Germany also benefited from the fact that the FRG did not view inter-German trade as foreign trade and, hence, did not subject Eastern goods to normal trade regulations. Intermediate and manufactured goods from the GDR could enter the FRG duty-free, and GDR agricultural exports to the FRG were exempt from the European Economic Community’s (EEC) compensatory levies. (Garland, p. 173)
The circumvention of the financial and regulatory standards that governed world trade thus worked to drastically alter East Germany's comparative advantage.

Several major shifts in the composition of the GDR's imports and exports became evident as it increased trade with the FRG. Mechanical and electrical engineering products such as heavy equipment and machinery had been, as previously noted, East Germany's comparative advantage and primary export to the Eastern Bloc. These products garnered only a small portion of the FRG market, however, primarily because they were specialized for the needs of other Eastern nations. (Garland, p. 184)

Textiles, clothing, and agriculture, areas of the economy that had traditionally received little investment, rapidly became the GDR's biggest exports to the FRG by 1982. Textiles and clothing were exported to the FRG at three times the rate they were imported. Agricultural products represented the GDR's third largest export to the FRG. This occurred mainly because of the absence of EEC levies and the lack of protectionism found in other Western markets. (Garland, pp. 185-86)

**Germany's Comparative Advantage and the Transition to Reunification**

Thus far, I have shown that the historical development of the Eastern States' comparative advantage in mechanical and electrical engineering goods developed amidst a battle between political and economic forces. Likewise, an accurate view of the current status of Eastern Germany's comparative advantage requires an understanding of the political, economic, and regulatory decisions surrounding German reunification.

With the fall of the Berlin Wall in 1989 and the economic union of Germany in July 1990, the East was liberated from the heavy-handedness of the Soviet Union and the rigidities of a centrally planned economy. However, the politics that clouded the issue of Eastern Germany's comparative advantage remained. Instead of the Soviets overtly determining the East's comparative advantage, the West German government and the agency charged with privatizing the Eastern economy (the Treuhandanstalt or Treuhand) limited the sources of Eastern German comparative advantage in a more subtle manner. These limitations were a by-product of the effort to ease the many political problems encountered in unifying the nation. These political problems were generated because of the Federal Republic's determination not to sacrifice widely-held cultural beliefs. Paramount among these beliefs was solidarity. The Constitution itself calls for the "unity of living standards in the federal territory." But unification with an antiquated economy clearly posed a threat to this ideal. The only prudent course of action for the West, then, was to remake the Eastern States in its image as quickly as possible. ("The Eagle's Embrace," p. 21)

The two decisions associated with the drive for solidarity which had the greatest impact on comparative advantage were the conversion of the East German mark for the D-mark on a one-to-one basis and the move to equalize wage levels between the East and West within a few years after reunification. The one-to-one valuation decision caused the Eastern currency to appreciate by 300 percent to 400 percent. (Smyser, p. 154) As previously noted, East German goods were not well received in markets outside of Eastern Europe due to their poor quality. The valuation decision made these shoddy goods prohibitively expensive while simultaneously placing them in the midst of intense international competition. Clearly this put Eastern German exporters at a major disadvantage. The movement to equalize wage levels was engineered by powerful West German unions, who feared a flood of low priced labor into the West. These unions were successful in organizing Eastern labor and negotiating contracts with employers that secured pay close to that received by Western counterparts. They also argued for the complete equalization of wages by 1994 or 1995. Unfortunately, the Treuhand succumbed to union pressures. As it sold off Eastern German companies, it required that prospective buyers maintain a minimum number of jobs. (Smyser, p. 168)

These politically motivated decisions robbed the Eastern States of a potentially strong competitive base. The East possessed a work force skilled in engineering and technical tasks, which developed as a result of the production
of industrial goods for the Soviet Union. (Janssen, p. 40) Prior to reunification, Eastern workers were only 33 percent to 50 percent as productive as their Western counterparts, and the difference in the average industrial wage had reflected this. In 1988, the average industrial wage was 1,292 East marks in the GDR and 3,657 D-marks in the FRG. (Smyser, p. 151) Although these low wage costs offset lower productivity, the inefficient production methods discussed earlier caused other costs to rise. This had required the Soviet Union to manufacture East Germany's advantage through managed trade.) After reunification, wage levels gradually headed toward equalization, causing labor costs to double by 1992 while productivity increased by only 33 percent. These high wage costs and the aforementioned strong currency combined to increase the price of industrial products, impeding the region's ability to trade them in the highly competitive markets outside of the Eastern Bloc. Furthermore, high labor costs caused potential investors in Eastern Germany to begin looking elsewhere to establish production facilities. Daimler-Benz and Volkswagen looked to the U.S. and France, respectively, for the construction of new facilities. Investors faced a market-determined price for their products but could not control a major cost of production. (Smyser, p. 182)

Besides overvalued products and labor, several other barriers to investment continue to exist. The first is the debate over the rights to property seized by the Soviets from 1945 to 1949. As claims on land proliferate and are substantiated in court, investors are becoming wary about the security of their purchases. Furthermore, although it was improving rapidly, the infrastructure in the East is still not up to Western standards, leaving investors worried over the quality and availability of telephone service and other utilities. (Smyser, p. 180) The regulatory framework in Germany is also complex. Environmental legislation alone includes some 800 laws, 2,770 ordinances, and 4,700 administrative provisions. Lastly, the German business environment is saddled with a costly, complex tax structure. Subsidiaries of foreign corporations can be subjected to a 42 percent corporate tax and an additional trade tax of between 13 percent and 20 percent. Furthermore, high taxes are placed on branches established by start-up businesses. (Heymann, p. 26)

These barriers to investment are substantial. Private investment was required to enhance the productivity of Eastern firms with unrealistically high wage levels in order to create a comparative advantage. With private investment limited in the years following reunification, the federal government was forced to devote steadily increasing amounts of financial resources for investment and expenditure in the East. (Smyser, p. 184) In the early 1990s, increasing expenditures caused government budget deficits, which stimulated demand and caused higher prices in the East. These effects, combined with the higher wage costs, alarmed the Bundesbank, which subsequently raised the short term interest rate to prevent inflation. Higher short term rates caused long term interest rates to stay at high levels. And as the cost of obtaining capital climbed, investors had yet another reason to steer clear of Eastern Germany. Also, with investable resources flowing elsewhere, the ability of banks to support ventures in the East waned. (Smyser, p. 195)

Government transfers, such as unemployment compensation and social security payments, while trying to compensate for the investment barriers stunting growth, actually create another hindrance to the development of a comparative advantage. Most of these transfers are spent on consumption, rather than investment. This increased consumption is largely spent on nontradable goods, such as construction and services, while the manufacturing sector, where tradable goods are produced, remains weak.

Development of Comparative Advantage in the Eastern States in the 1990s

The comparative advantage of the Eastern States since 1990 has been developed into a mirror image of that of the West. This is the result of a combination of two distinct factors. The first factor is that the export base of the East is not unlike that of the West. The second factor is that both regions face viable markets for their products. Almost 50 percent of Eastern trade is still centered on the fledgling,
yet rapidly expanding, markets of Eastern and Central Europe. ("External Trade...") Eastern German products have maintained a foothold in countries such as Poland and Hungary due to the relationships developed during the communist period. Eastern Germany still largely maintains an advantage in industrial goods production with these countries due to its former role as a center of industrial production in the Communist Bloc. This relative advantage is large enough to drive trade and overcome the distorted labor costs that resulted from the push for solidarity. ("The Labor Market")

The comparative advantage of Western Germany is centered on technologically advanced finished products, which is similar to that of the East. These products include mainly automobiles, chemical products, and electrical and mechanical engineering products. These goods are efficiently produced (which allows for higher wages) and of the highest quality. Western German companies closely monitor their international competition and take advantage of the newest technologies in an effort to react quickly and maintain the exchangeable value of their products. ("Branches of Industry")

A common misconception concerning Western Germany's export sector is that it is fueled by larger companies such as Daimler-Benz, Bayer, and Siemens. Whereas these companies are an integral part of the West's international success, it is actually the small and middle sized firms, referred to as the Mittelstand, that promote the entrepreneurship and innovation needed to keep German goods in demand on foreign markets. (Keithly, p. 381)

The chemical industry has only three large firms, Bayer, BASF, and Hoechst, which are accompanied by a host of smaller firms. Furthermore, of the nearly 7,000 production facilities dedicated to mechanical engineering, 90 percent employ fewer than 300 people. ("Branches of Industry")

Eastern Germany also possesses a large number of Mittelstand firms. As of 1994, these firms numbered 450,000, approximately 10,000 of which are engaged in manufacturing. Other sectors of small businesses complement the Mittelstand. As of 1995, 500,000 sole proprietorships existed, employing 3.4 million people. The East also maintains a very strong craft and trades sector among its smaller firms. The craft and trades sector is key in providing the intermediate goods that serve as the components for industrial manufacturers. Glass and metal used in automobiles are examples of these intermediate goods. This sector has provided the impetus for growth, with the number of firms increasing from 82,000 at the end of the central planning era to 147,000 in 1994, with a total workforce of 1.2 million. In 1996, the sector grew by 3.5 percent in the East. ("Crafts and Trades") It is clear that the export base of both the East and West is founded on the production of industrial goods through small and middle sized firms.

There are two reasons why both the German government and private investors are dedicated to developing the Mittelstand firms in the East that are focused on the production of high-tech industrial goods. First, there are a large number of successful small industrial enterprises in Germany (indeed, 75 percent of all industrial firms in Germany fall into this classification). The promotion of more competition in this area, then, is likely to create streamlined production and greater efficiency in Eastern firms. ("Technology") Also, because wages tend to be rising more quickly than productivity, investors are forced to choose a sector to invest in where the productivity gap can be closed most quickly. Since Eastern German workers already have a strong background in engineering and technical processes, high-tech industry seems to be a logical choice. (Smyser, p. 152)

There are many government programs for Mittelstand development in the East that are focused on counteracting the various investment barriers within the German economy as described previously. For example, up to 10 percent of investments in small and middle sized firms (firms with fewer than 250 employees) are tax deductible. Also, assets of small firms are exempt from any net worth tax until the end of 1998. Furthermore, any equity invested in, or money loaned to, small companies before December 1998 is exempt from any capital gains taxes. Credit programs exist, administered by the states, to help with any liquidity difficulties. Through the promotion of more foreign investment, the government is
hoping to compensate for the fact that most of its transfers are directed toward consumption.

Government assistance is provided in several research and development activities including the hiring and retention of personnel in R&D, the creation of new products and processes, and the building of an infrastructure for the transfer of technology. (“More Jobs to be Created...”) The government is also helping smaller craft enterprises maintain competitiveness through the provision of low interest loans and financial assistance for those in the pursuit of master craftsmen certifications. ("Crafts and Trades")

Export figures for 1995 reveal the similarity in the comparative advantage that has developed in both the East and West. Final products, specifically electrical engineering products and machinery, were a crucial source of international competitiveness for the West, representing 72 percent of exports. Final industrial goods were also the top export of the East, representing 56 percent of its total. Intermediate goods, generated through craft and trades firms, were the second biggest export for both regions at 19.6 percent and 15.6 percent of Eastern and Western totals, respectively. (Federal Statistical Office, p. 300)

The Future of Eastern German Comparative Advantage

The comparative advantage of Eastern Germany in intermediate and final industrial goods looks as though it will be maintained in the years to come, as it aggressively courts large manufacturers to complement the Mittelstand. For example, Siemens has recently established a $1.7 billion state-of-the-art silicon chip factory in Dresden. (“Is Eastern...,” p. 57) Siemens is exploiting what may have been one of the most rapidly developing sectors of the old GDR economy around the time of reunification. With 100 as the 1970 base, the production indices for the electrotechnical and precision mechanics industries in 1988 were 872 and 520, respectively. (Smyser, p. 153) In addition to Siemens, Dow Chemical has established a plant in the city of Buna, in the middle of Saxony-Anhalt's dilapidated chemical triangle, that will allow for the modern production of plastic and basic chemicals. Furthermore, Opel has established a manufacturing plant in Eisenach, in the state of Thuringia. (“Is Eastern...,” p. 57) This plant uses just-in-time production techniques and requires only 19 hours of direct and indirect labor to produce an automobile, making it Europe's second most efficient car plant. (Stokes, p. 1645)

The Mittelstand should also be bolstered in the near future. In 1996 the government allocated $674 million for use by young entrepreneurs as venture capital available through banks and other financial institutions. Those prepared to take the risk of setting up their own businesses are eligible for corporate income, trade, and company tax relief over a three-year period or have the option of writing off investments against their tax liability. (Menke-Gluckert, p. 14)

The government is also instituting other tax reforms to promote investment, which will take effect at the beginning of 1998. For example, the maximum tax rate on business income will then be reduced from 47 percent to 40 percent, and the tax rate on retained earnings will be decreased from 45 percent to 40 percent. (Endres and Ditsch, p. 37)

Conclusion

Contrary to the assertions of the scholars and academics described in the introduction, Eastern Germany does indeed have a comparative advantage. As the situation discussed has shown, the production of industrial goods has been a stronghold of the region's economy since the infancy of the communist occupation, although it has always been shrouded in political wrangling.

The existence of a Mittelstand is providing a spark of enthusiasm for the continued creation of products with tradable value. This spark of enthusiasm may yet lead to an explosion of exports. After all, investment levels in the East are higher now than they were in the West during the "Economic Miracle" that characterized the recovery following World War II. In privatizing 40,000 companies, the Treuhand created over DM 210 billion in investment commitments in the East. By the year 2000, the East's infrastructure will be nearly as developed as the
West’s. For example, the new states will have 96 percent and 94 percent of the capital stock of the West in telecommunications and energy, respectively. ("The Eagle’s Embrace," p. 58) Furthermore, unions are beginning to relax their demands for wage increases in hopes of safeguarding jobs. The combination of these factors has the potential to bring productivity back into line with wage levels and that result would yield continued increases in international competitiveness. Only then can the ideal of solidarity fostered by the Constitution and the social and economic order sought by Ludwig Erhard finally be achieved.

REFERENCES


