BIBLIOGRAPHY

Besley, Timothy and Stephen Coate. "Workfare versus Welfare: Incentive Arguments for Work Requirements in Poverty-Alleviation Programs," *American Economic Review*, March 1992, pp. 249-61.

Burtless, Gary. "The Economist's Lament: Public Assistance in America," *Journal of Economic Perspectives*, Winter 1990, pp. 57-78.

Chambers, Robert G. "Workfare or Welfare?" *Journal of Public Economics*, October 1989, pp. 79-97.

Gueron, Judith M. "Work and Welfare: Lessons on Employment Programs," *Journal of Economic Perspectives*, Winter 1990, pp. 79-98.

Jencks, Christopher. "How to Make Welfare Work," *Fortune*, June 1, 1992, p. 43.

Peterson, George E. "Welfare, Workfare, and Pareto Optimality," *Public Finance Quarterly*, July 1973, pp. 323-40.

Standing, Guy. "The Road to Workfare: Alternative to Welfare of Threat to Occupation?" *International Labour Review*, July 1990, pp. 677-91.

Steinberg, Dan. "Induced Work Participation and the Returns to Experience for Welfare Women," *Journal of Econometrics*, October 1989, pp. 321-40.

"Welfare and Work: Putting the Poor to Work," *The Economist*, November 26, 1988, pp. 19-22.

GERMAN UNIFICATION: INEFFICIENCIES OF GOVERNMENT INTERVENTION

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PART I: GERMAN UNIFICATION BACKGROUND

INTRODUCTION

In April 1990 the East and West German governments reached an agreement for economic, monetary, and social union (GEMSU). This accord meant that sweeping changes would soon occur in East Germany, specifically the replacement of the existing command economy by a market system. Since unification, East German companies have been unable to operate profitably because of poor organization, high labor costs, outdated capital, and insufficient consumer demand. Presently, the East German government keeps these unprofitable businesses afloat by backing risky loans and stipulating that purchasers of formerly state-owned companies meet certain employment and investment requirements. This government interference in the market to support inefficient enterprises has not led to a more efficient allocation of resources in East Germany. Although market distortions exist in East Germany, the agency must consider closely whether its policies will lead to overall efficiency gains. In general, market forces must be allowed to determine viable from unviable firms and employment patterns if the government hopes to increase social welfare in East Germany.

The events surrounding German Unification form a helpful framework for analyzing the Treuhandanstalt's privatization policies. Consequently, the first portion of the paper consists of extensive background information on German Unification.

EAST GERMAN ECONOMIC BACKGROUND

CENTRAL PLANNING IN FAST GERMANY

Article 9 of the constitution of the GDR (German Democratic Republic) mandated the provision of a socialist planned economy in East Germany. The East German government attempted to achieve this goal by regulating production, employment, investment, prices, money, credit, and indirectly consumption. Past GDR governments have varied the relationship between the government and regulated firms in the development of a socialist planned economy. The following periods summarize particular economic organizational trends:

- Strict Central Planning (1945-1962)
- Reform Period under General Secretary Ulbrict (1963-1970)
- Recentralization under General Secretary Honecker (1971-1989)

Strict Central Planning

An inflexible command economy characterized the Strict Central Planning period. The government directly controlled production, distribution, company investment, and specified output volumes quantitatively. Officials placed more emphasis on increasing capital investment rather than meeting new consumer demands. The low economic growth, "bottlenecks", and market distortions which characterized this economic program necessitated a major restructuring of the planning system in the 1960s (Mayer and Thumann, p. 70).

Reforms

The new economic system *(Neues Okonomisches System der Planung und Leitung der Volkswirtsschaft)* of the Ministerial Council of 1963 allowed firms more control over decision making, thus shifting more responsibility from the government to company management. Government officials instituted "economic levers" *(Okomische Hebel)* which greatly diminished the quantitative targets that constrained companies. Instead, management focused more upon profits, wage premiums, and reformed prices. Although capital and other input prices became more flexible, consumer prices remained unaffected as the government continued its price stabilization policy. Despite initial progress under the new economic program, the economy again stagnated by the late 1960s (Mayer and Thumann, p. 70).

Return to Strict Central Planning

Erich Honecker, the new party leader of the 8th Congress of the Socialist Unity Party (SED), slowed economic reform and shifted government policy back to strict central planning. External factors (such as the 1973 and 1979 oil shocks, and the 1982 reduction of available credit from Western banks) led to changes in Honecker's economic policies, such as frequent reassessments of "official" government targets. In 1984 the government resurrected polices of the reform period, such as evaluating firms' performance on the basis of net profits and other efficiency criteria. Also, officials again allowed companies greater decision autonomy, including the right of "creating own funds for investment". Despite these partial reforms, increased central planning characterized this period. The 1979 emergence of the *Kombinate*, large companies with both vertical and horizontal integration, exemplified the movement towards more rigid central planning. The sharp contrast in living standards between East and West Germany reflected the failure of the economic policies of the Honecker government, and increased pressure to dismantle the " command and control" economy (Mayer and Thumann, p. 70).

PRE-UNIFICATION ECONOMIC REALITIES IN EAST GERMANY

East German officials published dubious "official" statistics of the GDR economy until 1989. The government reported that between 1980 and 1988 real net material product (NMP--roughly defined as net domestic product minus service sector output) averaged 4 percent, net investment rose by 2 percent, and real per capita disposable income increased by 4.5 percent annually. Government statistics showed stable prices, surplus external accounts, marginal unemployment, and balanced government budgets (Mayer and Thumann, p. 52).

In contrast to the "official" reports regarding the East German economic budget, it appears that the government incurred small deficits in the past years. In 1990 the State Bank *(Staatsbank)* released data of 1989 financial accounts which revealed that the East German government incurred M 50 billion in gross domestic liabilities (18 percent of NMP) which it owed to the banking system. If the housing sector is included, the government accumulated liabilities of approximately M 158 billion (57 percent of NMP). The government debt included bank financing and construction investment since capital markets did not exist before unification. Furthermore, state-owned companies accumulated large debts (94 percent of NMP) because profits had served as supplementary government revenue. (Mayer and Thumann, p. 57)

Central Planning Inefficiencies

Although little reliable data exists, several factors suggest that the government distorted the preunification economic situation in the GDR. The central planning system was ill-equipped to cope with the external shocks of the 1970s, changing consumer preferences, and technological advances. Also, the relative isolation of the GDR economy protected industry from competitive pressures from foreign producers. High concentration of investment in technology-intensive industries reduced the capital base in other important industries such as consumer durables and public infrastructure. In addition, government interference in the labor market through strict worker mobility and contract regulations caused further inefficiencies. Finally, reduced standards of living for East German laborers damaged economic productivity by lowering worker morale (Mayer and Thumann, p. 52).

The principal-agent problem partially explains the inefficiencies associated with the East German socialist planning system. The problem occurs when a principal (A) has objectives which can only be achieved by agents (B) because B either has better information or bears immediate responsibility for the decisions. We might characterize A as the East German government (which regulated East German state-owned firms) and B as the regulated industry. Since the government and regulated industry may have different goals, a monitoring problem results from the situation. The government may strive for a social benefit such as the maximization of economic welfare, while the managers of the industry might strive for power, prestige, or other goals. (Vickers and Yarrow, pp. 9-13; 25-35).

Although the principal-agent problem also occurs with privately owned firms, the monitoring problem can be handled more easily. In contrast to public industries, private firms

face the threat of bankruptcy or takeover which improves internal efficiency. Also, some argue that information gathering of worker performance is superior in private firms. Under public ownership a single body usually assumes the information gathering role, whereas in private ownership monitoring involves many institutions and individuals specialized in the given task. (Vickers and Yarrow, pp. 29-30).

The sensitivity of government officials to political issues also may lead them to follow economically inefficient policies (Vickers and Yarrow, pp. 19-20). As a member of the Council for Mutual Economic Assistance (COMECON), the government developed a distorted international trade market which made East German products less responsive to competitive pressures (Siebert, p. 13).

Structural Problems

A major problem in East Germany involved the age and capacity of the capital stock. An unofficial report concluded that 75 percent of East German machinery and buildings is older than five years, 54.9 percent older than ten years, and 21.1 percent older than twenty years. This outdated equipment imposed (and still imposes) high energy and environmental costs. Also, the orientation of the capital stock towards the distorted COMECON market led to products of poor quality (Siebert, p. 13). In summary, it seems unlikely that East Germany experienced the strong economic growth reported by government officials in light of the existing inefficient economic system.

West German Economic Background

Economic Data before 1989

The FRG (Federal Republic of Germany) experienced low inflation, steady growth, strong investment, and high levels of capacity utilization during the seven years before the East German government opened the border to West Germany on November 9, 1989. Although unemployment remained moderate throughout the period, the country had a high savings rate and current account surplus. In 1988, real GNP, the consumer price index, and real domestic demand increased by 3.7 percent while unemployment hovered around eight percent (Lipschitz, p. 1).

Before November 1989, debate over whether capacity constraints in certain sectors of the economy, despite moderate unemployment, might threaten price stability dominated the domestic economic agenda. More specifically, order delays, widespread overtime employment, and shortages of skilled labor suggested high levels of capacity utilization in the manufacturing sector. In international economic affairs, West German leaders worried primarily about the current account surplus and issues related to European economic integration (Mayer, McDonald et al, pp. 21-22). The opening of the border between East and West Germany presented new challenges to the West German economy.

ECONOMIC DEVELOPMENTS BETWEEN 1989 AND UNIFICATION

The opening of the East-West German border in November 1989 led to a mass immigration of ethnic Germans from the GDR and other parts of Eastern Europe. In 1989, immigration boosted the labor supply of West Germany by almost 700,000 people, including 377,000 ethnic Germans and 344,000 GDR citizens. Despite concerns that the West German economy had little spare capacity remaining, real growth in 1989 exceeded expectations. Real GNP increased by 4 percent in response to high levels of investment, capacity utilization, and company resources. Some economists argue that the creation of 370,000 new jobs in the labor market (when compared to the approximately 200,000 new jobs in both 1987 and 1988) suggests that immigration and investment increased potential output growth (Lipschitz, p. 2).

Monetary Policy

The restrictive monetary policies of the East German government between 1989 and unification reflected strong concern about inflation. After three years in which monetary growth had overshot its target, in 1989 broad money (M3) increased by 4.75 percent in relation to a 5 percent target. The combined effect of the increase in German interest rates of 2.5% by the

Deutsche Bundesbank and the decrease of U.S. dollar interest rates was a 3.75% appreciation of the deutsche mark against the U.S. dollar in 1989 (Lipschitz, p. 2).

Fiscal Policy

The West German government accompanied restrictive monetary policy with tight fiscal policy. The budget deficit of the territorial authorities (federal, state, and municipal governments; the Burden Equalization Fund; the European Recovery Program Fund; the accounts of the European Community) decreased from 2.5 percent to 1.25 percent of GNP in 1989 while general government accounts (including the social security system) had their first surplus since 1973. The government also enacted a tax reduction reform package which lowered gross taxes and reduced tax preferences, having the net effect of increasing purchasing power by 1 percent of GNP. In addition, authorities announced their intention of abolishing stock exchange and company equity taxes (Lipschitz, p. 2).

ECONOMIC STRENGTHS AND WEAKNESSES UPON UNIFICATION

In general. the fiscal and monetary policies of the West German government between 1988 and 1990 provided a solid foundation for the unification of the FRG and GDR economies. West German economic strengths included a national savings rate that exceeded national investment by about 4 percent of GNP, reformed tax system, 1989 balanced government budget, low inflation, and net foreign assets of approximately US $300 billion. Also, strong business profits between 1982 and 1989, and liquid company reserves for investment placed West Germany in a favorable position for unification. Despite these positive characteristics, the FRG economy appeared very close to its full capacity. Specifically, economists debated whether a supply response in West Germany would reduce pressure from the additional demand generated by unification without increasing the rate of inflation. Although the provision of resources by other foreign countries would diminish demand pressures, labor market and capacity constraint flexibility remained important considerations (Lipschitz, p. 3).

COMPARISONS BETWEEN EAST AND WEST GERMANY

PRODUCTIVITY

Productivity differences between East and West Germany have been difficult to determine because of the lack of reliable data in East Germany. A study by the Deutsches Insitut fur Wirtschaftsforschung (DIW) based on prices in the FRG, production data, and input-output relationships published by East German officials reported that in 1983 East German productivity in the industrial sector lagged behind that of West Germany by 50 percent. Another study by the DIW determined that in East Germany three times as many workers as West Germany were needed to generate a given amount of export revenue in convertible currency. These conclusions have been debated, and a more recent study concluded that East German productivity was 40 percent of West German levels (Mayer and Thumann, p. 53).

Questionable data and outside factors limit the usefulness of productivity and other efficiency estimates of the GDR- Measures of productivity, for instance, must take into account differences in quality between East German and foreign products. In addition, export comparisons bias results in favor of West Germany because the East German government sought objectives other than maximizing revenue from exported goods such as economic self-sufficiency.

OWNERSHIP OF CONSUMER DURABLES

A comparison of ownership of consumer durables in East and West Germany illustrates the difference between East and West standards of living. For example, roughly twice as many West Germans as East Germans owned a car or television. A distorted price structure led to inefficient allocation of consumer goods in East Germany as the government priced most basic consumer goods below and "luxury" goods above competitive levels. The East German government supported the artificially low prices of "necessities" through direct subsidies: in 1988 the government spent approximately M 50 billion (about 18.4 percent of NMP) on subsidies. The following table offers price comparisons between East and West Germany in 1985:

Product/Service	Price in GDR (in marks)	Price in FRG (in deutsche mark)	GDR Price in % of FRG Price
Food/Beverages			
Potatoes (5kg)	4.05	5.32	76
Beef	9.80	19.45	50
White Wine	7.80	3.47	92
Textiles			
Men's Jeans	135.00	59.90	225
Men's Leather Jackets	1,690.00	259.00	653
Consumer Durables			
Color Television	5,650.00	1,199.00	471
Refrigerator	1,435.00	369.50	388
Car (Lada Nova)	24,500.00	10,210.00	240
Pocket Calculator	123.00	9.95	1,236
Housing			
Reni (2 BDR Apt)	75.00	390.00	19
Electricity (75 kwh)	7.5	29.30	26

Source: Deutsche Bundesbank (Mayer and Thumann, p.63)

This data illustrates that purchasing power comparisons between the mark and deutsche mark depend upon the chosen consumer basket. While the mark compares favorably to the deutsche mark for buying certain items, the mark was only valid for transactions in East Germany and consumers chose from a limited amount and value of goods (Mayer and Thumann, p 53).

UNIFICATION

POLITICAL BACKGROUND OF EAST GERMANY

Unhappiness with the political and economic system in East Germany led to government oppression for many years. Influenced by perestroika in the Soviet Union and reforms in Poland and Hungary, opposition in the GDR became more visible and widespread in 1989. While some voiced criticism by emigrating, other East Germans remained to protest the existing political and economic situation. Erich Honecker, the Secretary General of the Socialist Unity Party (SED) and head of state, resigned in October 1989 in response to domestic pressure and lack of support from Moscow. The government attempted to appease the protesters by opening borders to the West on November 9, 1989.

Hans Modrow, a "progressive" communist, became Prime Minister of the new government which took office in mid-November. Change in East Germany seemed inevitable, and on November 28, Chancellor Helmut Kohl of West Germany announced a ten-point plan for unification. His plan included the following elements:

- West German humanitarian aid to East Germany.
- Establishment of a DM 2.9 billion currency fund (with West Germany contributing DM 2.2 billion) enabling East German citizens, as of January 1, 1990, to exchange marks for deutsche marks in order to travel to West Germany once a year. The official exchange rate would be lDM=l M for the first one hundred marks and DMl=M5 thereafter.
- Creation of joint projects between East and West Germany aimed at reducing pollution and modernizing East Germany.
- Linkage of East German governmental agencies to West Germany via intergovernmental treaties after free elections had occurred in East Germany.
- Establishment of bureaucratic links from East to West Germany, eventually leading to a FRG/GDR confederation in accordance with the Helsinki agreement on human rights and European integration (Mayer and Thumann, p. 50).

The principle of German Unification eventually gained widespread support in East Germany, especially after reports of corruption among former East German officials and the dismantling of the Politburo and Central Committee of the SED in December 1989. East German emigration influenced the West German offer and East German acceptance of unification. After the East German government opened the border with West Germany on November 9, 1989, mass emigration from East to West Germany resulted. An estimated 167,000 people emigrated to West Germany between January and October 1989, while 177,000 more people emigrated between November and December of 1989. The total emigration from East to West Germany in

1989 of 344,000 people represented a huge increase from the 1988 emigration of 44,000 people (Mayer and Thumann, pp. 49-50). The table on the following page summarizes the monthly migration between East and West Germany between 1989 and 1990.

The volatile political and economic situation became worse in January when emigration reached a daily rate of 1,500 to 3,000 people. Prime Minister Modrow responded to domestic unrest by incorporating into his government eight members of opposition groups and shifting upcoming elections from May 6, 1990 to March 18, 1990. Revelations in early January 1990 that Modrow's government had retained approximately three-fourths of the Stasi, the former East German secret police, increased pressure on Modrow to hasten reforms (Mayer and Thumann, p. 49).

Month	Eastern Estimates: Outflow in 1989	Inflow in 1989	Outflow in 1990	Inflow in 1990	Western Estimates: Inflow in 1989	Inflow in 1990
January	–	–	41,413	593	4,627	73,729
February	–	–	45,062	151	5,008	63,893
March	–	–	44,064	71	5,671	46,241
April	–	–	24,052	136	5,887	24,615
May	–	–	13,940	265	10,642	19,217
June	–	–	13,616	437	12,428	10,689
July	–	–	27,323	353	11,707	–
August	–	–	24,537	581	20,959	–
September	–	–	18,150	688	33,255	–
October	34,308	61	–	–	57,024	–
November	70,868	176	–	–	133,429	–
December	54,200	494	–	–	43,221	–

(a)–Eastern outflow data records people who reported their departure; eastern inflow data records people who reported their arrival to the East

(b)–Western inflow data records people who registered with authorities upon arrival in the West.

Sources : Eastern data are from *Monatszahlen*, December 1990. p.4 Western data are from *Bundesanstaity fur Arbeit* (1991, table 5) (Akerlof et al., p.45)

UNIFICATION TREATY

Concern about the economic and political problems in East Germany led the West German government to offer economic and monetary union between the FRG and GDR in early February 1990. Questions regarding the appropriate speed for German economic and monetary unification, served as controversial campaign issues before the March election. The victory of the CDU

party, which supported a rapid transition, meant that sweeping changes would occur swiftly. Lothar de Maiziere, the new East German Prime Minister, accepted the main conditions for German economic, monetary, and social union (GEMSU) in April 1990. The GEMSU agreement became effective on July 1, 1990, and provided the framework for political union. Ratification of the Unification Treaty and arrangement of political union for October 3, 1990 by the East and West German governments took place in September (Mayer and Thumann, pp. 51-52).

The Unification Treaty emphasized three broad themes which were to guide reform. First, the GEMSU would be a process by which the GDR and FRG achieved full political union. Article 23 specifies that the union would not be a merger of the different institutional systems of East and West Germany, but rather the incorporation of East Germany into West Germany. Second, the process of unification would be based *on Ordnungspolitik*, the unleashing of market forces within a coherent institutional and financial framework. Thirdly, the treaty stated that German Unification should not reduce commitments to Europe, but should be viewed as a "contribution to European unification" (Lipschitz, p. 5).

MONETARY INTEGRATION

Deutsche Mark-Mark Exchange Rate

Monetary union of the GDR and FRG occurred on July 1, 1990. The deutsche mark became the official currency and the Deutsche Bundesbank became the sole monetary authority of the GDR Also, the German government instituted a new banking system in the GDR with unconstrained capital flows and market determined interest rates. All labor contracts, wages, rents, and other recurrent payments were converted into deutsche marks at the rate M1=DM1. Occupants of the GDR could exchange marks for deutsche marks at parity subject to the following constraints: 1) People under 14 years old could exchange up to 2000 marks at parity 2) People between the ages of 14 and 58 could exchange up to 4000 marks at parity 3) People over 59 could exchange up to 6000 marks at parity. All other domestic financial assets and liabilities of the GDR could be exchanged at the rate M2=DM1. Finally, all other assets in marks which nonresidents or institutions obtained before 1989 could be exchanged at the rate M2=DM1, while assets procured after 1989 would be converted at M3=DMl (Lipschitz, p. 6).

Impact of Exchange Rate on East German Banking Sector

The varied exchange rates for East German assets and liabilities had several important consequences for the banking sector, While the assets of the banking sector were converted at an average exchange rate of approximately M2=Dl, bank liabilities were converted at a lower rate. This resulted in a substantial decline of the net value of the banking system. The government attempted to prop up East German banks by increasing assets and reducing liabilities. First, the government freed the banks from liabilities resulting from the difference between the official exchange rate and the commercial exchange rate on hard-currency trade. Second, it decided to "balance the books" of the banking sector by issuing government paper which accrued interest at the Frankfurt interbank offer rate (FIBOR). In light of the weak position of East German banks, officials realized that the government would have to accept part of enterprise debt and play a significant role in backing loans extended to weak institutions. This policy seemed appropriate because much of the debt had been incurred through non-commercial means, such as the chosen mark-deutsche mark exchange rate. (Lipschitz, p. 7).

Government Interference in Capital Markets

Before Unification, no coherent capital market for investment existed in East Germany and few boundaries existed between the government, banking, and enterprise sectors. A simplified example of the balance sheet of the GDR government might have included the following liabilities and assets:

Assets	Liabilities
Land	Currency held by individuals
Social Infrastructure	Individual bank deposits
Buildings	Foreign Debt
Machinery and Equipment	Net Worth
Foreign Exchange	

Source: Lipschitz, p.4

Under such an economic system, lending from banks to companies or the government consisted of an intergovernmental transfer of funds. Transactions reflected government policies rather than the interplay of market forces. Economic unification necessitated the separation of the banking sector from the government and the creation of a capital market. The Treaty led to the establishment of an independent banking system accountable for its debt and credit positions to the former state-owned companies. The companies, reorganized and placed in the *Treuhandanstalt* (Trust Fund), also were liable for debts owed to the banking sector before and after unification (Lipschitz, p. 4).

The weak position of East German banks persuaded German officials that the government and Western banks would have to play a temporary role in capital formation in East Germany. West German banks have become involved through joint ventures with the State Bank and independent operations. Officials decided that banks could not accurately assess the viability of East German enterprises and authorized the Trust Fund to guarantee short-loans to the companies. *The Treuhandanstalt* backed loans amounting to DM 10 billion between July and September of 1990. This "temporary" involvement of the Trust Fund in providing loans to East German companies means that the government remains active in the banking sector and has yet to establish an independent capital market (Lipschitz, p. 7).

PRIVATIZATION AND THE TREUHANDANSTALT

Legislation and Formation of the Treuhandanstalt

The most challenging aspect of the economic reform consisted of the dismembering of the State in East Germany, although few specifics can be found regarding privatization in the Unification Treaty. Chapter I of the State Treaty stipulated that a free-market, competitive economic system replace the central planning regime of the GDR. The State could now only provide public goods and pursue a social market economy similar to that which existed in the FRG. An amendment to the treaty did, however, deal more concretely with issues of ownership.

Before German Unification, the GDR had evolved into a predominantly state-run country. By 1988, the state controlled nearly all industrial production, transportation, banks and insurance companies while extensive private ownership prevailed only in the housing and retail markets. GEMSU and ratification of the State Treaty led to philosophical and practical ownership changes (Mayer and Thumann, p. 57).

Appendix IX to the State Treaty instructs the GDR to offer enough land for private investment and to organize the assets of state-owned companies to include the land upon which they are situated. Mayer and Thumann summarize four basic tents which the governments of the FRG and GDR agreed would guide privatization policy:

> •Expropriations by the Soviet Military Government in 1945-49 would not be reversed, although an all-German parliament could have the right to determine appropriate compensation.
>
> •Expropriated or state-administered land and real estate would in principle be returned to the previous owners or their heirs. If land or real estate could not be transferred , compensation would be paid.
>
> •Firms expropriated after 1949 would, in principle, be returned to their original owners. Those firms taken between 1949 and 1972 might be compensated in lieu of receiving ownership rights.
>
> •The GDR authorities would establish an extra-budgetary fund to finance compensation payments. Applications for the return of property should be submitted within a period to be specified–no later than six months after GEMSU (Mayer and Thumann, p. 57).

Although this agreement provided a framework for privatizing state companies, unsettled ownership issues still remained.

The main legislative body of the GDR *(Volkskammer)* also passed privatization legislation. State-owned enterprises were converted into joint-stock or limited liability companies, and a public trust fund (Treuhandanstalt) to assume temporary ownership and oversee the dismantling or privatization of state property was established. The Trust created supervisory and management boards of directors for 8000 companies, a process that entailed approximately 120,000 appointments (Akerlof et al, p. 65). The Treaty specified that the Prime Minister of the GDR oversee the Treuhandanstalt, which would be headed by an executive board of one president and four directors. East German government and parliament officials would appoint a supervisory council to monitor the operations of the executive board. *The Volkskammer* also directed the Treuhandanstalt to seek advice from management consulting firms in its creation of economically sound privatization policies (Mayer and Thumann, p. 58).

Objectives of the Treuhandanstalt

The objective of the Treuhandanstalt is to maximize social welfare in former East Germany, subject to legal, financial, and environmental constraints. This goal of maximum social welfare guides the agency's decisions to privatize, restructure, or liquidate the 8000 state-owned companies of former East Germany.

Evidence of Treuhandanstalt Intentions

The East German government considers the impact of several economic factors including revenue, investment, and employment on both present and future economic welfare in its privatization plan. The Treuhandanstalt seeks not only to increase current social welfare, but also to develop an environment favorable to long-term economic growth. Jens Odewaid, a spokesman for the Treuhandanstalt, expressed this objective in an interview: "it is not the only goal to sell the firms as quickly as possible to the highest bidder. Instead, we also have to help to create jobs, encourage investment, and let a sound economic structure develop" (Akerlof et al, pp. 64-67).

Privatization Description

The privatization policies of the Treuhandanstalt reflect its commitment to investment and employment in East German companies. The agency often accepts a lower price (sometimes even a negative price, after taking into account other costs incurred by the government) in return for guarantees by the purchaser to save jobs and increase investment. The following contract between the Treuhandanstalt and the buyer of an East German foundry exemplifies the complexity of the negotiations:

> The purchaser will by the end of 1993 have invested at least DM 20 million in [a new foundry], in particular for the procurement and installation of a large new moulding plant, and by the end of 1995 a further DM 20 million. If, by the end of 1993, there are not binding orders for the investment of DM 20 million, then the purchaser must pay the Treuhand the difference between the value of such orders and the DM 20 million (Economist 3-21-92).

An artificial scarcity of bankrupt East German companies has resulted from the Treuhandanstalt's commitment to increased investment and employment. Although the privatization agency has only liquidated 6 percent of the companies in its holdings, an independent study concluded that as many as 70% of the Treuhandanstalt's firms are not viable (Economist 3-21-92).

Constraints of the Treuhandanstalt

Three main sources form the financial constraint binding the decisions of the Treuhandanstalt : 1) Capital income–proceeds from privatization; 2) Operating income from its constituent companies; 3) A borrowing limit of DM 25 billion for 1990-1991 (Lipschitz, p. 7).

Environmental problems also hinder the Treuhandanstalt's ability to privatize companies in the trust. East German industry and agriculture do not meet Western environmental, health,

and safety requirements. High levels of sodium dioxide and nitrous oxide emissions, contaminants in streams and rivers, and wastes in soil discourage Western firms from buying Eastern companies. The government has attempted to resolve this problem by absolving purchasers of liability stemming from past environmental damage (Akerlof et al, p. 66).

Legal issues regarding ownership claims have slowed the Treuhandanstalt's privatization effort. The Trust does not have a clear legal right to all of the companies in its fund, as original property holders can claim ownership of assets taken for religious or political reasons between 1933 and 1945 and of land expropriated during the Soviet occupation (Akerlof et al, p. 66)

In 1938, after sending his father to a Buchenwald concentration camp, German authorities forced Heinz Stern at age 26 to sign a document transferring his family-owned flour mill to another German. The Soviets later expropriated the mill from the new owner in their nationalization campaign at the end of World War Two. If Mr. Stein accepts the property, he must repay the $16,000 in war reparations that the West German government awarded him for lost property during the war. While the original 1938 contract has been located and Heinz Stern has a clear legal right to land, other ownership claims are more difficult to resolve because many official documents are either lost or buried in the previously inaccessible East German archives (John Tagliabue, New York Times, 2-3-91).

Although the Treuhandanstalt has the right to offer monetary compensation in lieu of property, settling each dispute imposes high opportunity costs such as foregone privatization of other companies. Only 3000 of the 17,000 ownership claims filed had been processed by February, 1991. The situation should improve with the recent decision to give priority to selling state companies over settling ownership claims until 1993 (Akerlof et al, p. 66).

Crime has also interfered in the East German privatization effort, as employees of the Treuhandanstalt have been accused of participating in illegal kickback schemes. It has been alleged that generous deals on East German property have been made in return for money or future employment. A German newspaper, the *Augsburger Allgemeine*, accused the Treuhandanstalt of liquidating viable companies and sharing proceeds with former industry managers. The Treuhandanstalt suspended employees connected with a kickback scheme and offered to cooperate with an investigation by the Berlin economic crime office (Terence Roth, Wall St. Journal, 4-12-91). Officials would not disclose the extent of corruption in the privatization agency, but later admitted that it had sold an East German engineering company to a man who stole money from its bank account (New York Times, 7-29-91).

POST-UNIFICATION ECONOMIC BACKGROUND

EVIDENCE

East Germany has been plagued by high unemployment and reduced industrial output since unification. Production deteriorated most during the first month of unification (July 1990) when East German output plummeted to 35 percent of its 1989 level and rose slowly in January to 46 percent. A study of individual industries reveals the extent of the output decline: by December 1990 cement, bicycle, and pasta production were down 21, 25, and 27 percent respectively. Employment figures support the industrial output data as industries released the following percentages of workers by November 1990: construction (27), transportation (17), and communications (29). By February 1991, unemployment had reached 8.9 percent and 21.5 percent of East Germans worked part-time (Akerlof et al, pp. 5-7). As of April 1991, 40 percent of East Germans employed in companies still owned by the Treuhandanstalt worked reduced hours. The Treuhandanstalt reported that over half of these workers are idle at least 75% of the time (Wall St. Journal, 4-12-91). The following table summarizes employment data in East Germany between 1990 and 1991:

Unemployment in East Germany, 1990-1991 (Thousands of workers)

	Unemployment		*Short term*		
Month	**Number**	**Rate**	**Number**	**Rate**	**Vacancies**
Jan 1990	7.4	.....	.....	.....	158.6
Feb	11.0	.....	.....	.....	141.4
March	38.3	.....	.....	.....	105.9
April	64.8	.....		.....	73.6
May	94.8		.....	.....	54.3
June	142.1	1.6	.....	.....	41.4
July	272.0	3.1	656.3	7.4	27.7
Aug	361.3	4.1	1499.9	16.9	20.4
Sept	444.9	5.0	1728.7	19.3	24.3
Oct	536.8	6.1	1703.8	19.1	24.7
Nov	589.2	6.7	1709.9	20.1	23.8
Dec	642.2	7.3	1795.4	20.5	22.6
Jan 1991	757.2	8.6	1856.0	21.1	23.0
Feb	787.0	8.9	1900.0	21.5	......

Source: Monatszahlen, December 1990

Akerlof and others have conducted in depth studies of East German firms which conclude that the majority of companies cannot cover their short term variable costs at current world prices. They report that only 8 percent of the East German labor force is employed in viable companies, and the majority of firms have short-run variable costs between one and two deutsche mark per deutsche mark earned (Akerlof et al, p. 27).

EXPLANATIONS

"Price-Cost Squeeze"

East German firms producing tradable goods cannot cover their short-run variable costs at present wages and world market prices. This unprofitable situation has been referred to as the "price-cost squeeze". Practices that have reduced productivity include widespread overmanning, political activities of workers, high absenteeism, frequent interruptions because of an absence of inputs, and excessive in-house production of inputs. In addition to these inefficiencies, extraordinarily high wages have reduced the competitiveness of East German companies (Akerlof et al, pp. 16;28).

The price-cost squeeze has affected East German exports to both socialist and non-socialist countries. While export sales have not declined substantially, as total exports between July and November of 1990 amounted to approximately 89 percent of the export level between July and November of 1989, this data is misleading. East German companies have required subsidies to meet contract obligations to socialist countries and the Treuhandanstalt has guaranteed loans to unviable East German companies enabling them to export to non-socialist countries (Akerlof et al, p. 29-32). While German officials argue for the short-term necessity of these subsidies, no government plan has specified when the grants will end.

Reduction in Domestic Demand for East German Products

Although no official statistics exist which reveal the magnitude of the decline in domestic demand for East German products, several reliable Sources suggest the widespread substitution of West for East German products. A survey of Eastern supermarkets showed the high degree of import penetration. The proportion of Eastern products in retail sales amounted to 4 percent of the coffee and cocoa, 6 percent of the chocolate, 12 percent of the fresh cheese, 24 percent of the sugar, 29 percent of the detergent, and 65 percent of the margarine. Also, the West German Statistical Office reported a 277% increase in West German exports to East Germany in September 1990 over the same month in 1989 (Akerlof et al, pp. 33-35). This reduction in demand for East German products has been a major factor along with the price-cost squeeze in causing the depression in former East Germany.

Impact of Unification on Wages

Conversion Rate

The State Treaty stipulated that wage contracts for East German workers be converted at par (lM = 1 DM) while other East German assets be exchanged at less than parity upon economic union. This favorable conversion rate for East German labor contracts and pressure from unions led to a rapid appreciation of East German wages. Officials decided to convert wage contracts at par in an attempt to maintain a decent standard of living for East German workers. (Akerlof et al, p. 54).

Real Wage Increases

The Treuhandanstalt, the temporary holder of the stock of newly formed firms, did not intervene in wage negotiations and allowed enormous increases in the East German wage level. The average industrial wages of East German industrial workers increased by almost 23 percent between July and October 1990 (Akerlof et al, p. 54). While Akerlof stresses the impact of the high wages on firms' short-run variable costs, East German wages are still considerably lower than West German wages.

Privatization Data

Treuhandanstalt officials complied with the privatization legislation by establishing supervisory boards in banks, local governments, and companies that employed more than five hundred employees. In effort to bring Western managerial, technical, and sales expertise to East Germany, most of the appointees came from West Germany. The Treuhandanstalt empowered members of the supervisory boards to restructure companies after consulting management of the formerly state-owned enterprises (Economist, 32 1 -92).

A study by Colin Mayer of City University Business School and Wendy Carlin of University College London outlines the status of Treuhandanstalt firms as of November 1991.

Although Carlin and Mayer report that the agency had privatized 4,125 firms, other studies conclude that over 5000 enterprises had been privatized. The Treuhandanstalt must still dispose of over 6000 companies. Excluding management buyouts of smaller firms, the agency has not had more success in privatizing companies of a particular size.

PART II: ANALYSIS

The economic situation in East Germany since unification has been anything but promising as high unemployment and low productivity prevail throughout the region. The economic boom that most East Germans hoped would accompany the end of the command economy has yet to materialize- Businesses have failed and workers have lost their jobs because the inefficient economic system which characterized former East Germany remains.

Economic theory states that government intervention is justified when market failures such as natural monopolies, externalities, and information asymmetries exist. Under these conditions, government intervention may improve social welfare by leading to a more efficient allocation of resources (Grabowski and Vernon, p. 2). However, policy makers must be wary of government intervention because regulation cannot eliminate business inefficiencies and imposes its own costs. In Stigler's "economic" theory of regulation he argues that "as a rule, regulation is acquired by the industry and is designed and operated primarily for its benefit" (Grabowski and Vernon, p. 9). The first portion of the analysis discusses the benefits of perfect competition and the cases for government intervention. These principles are then applied to the situation in East Germany to assess the policies of the Treuhandanstalt.

BENEFITS OF PERFECT COMPETITION

PARETO EFFICIENCY

A starting point for discussing the value of competition is the principle of Pareto efficiency. An allocation is Pareto efficient if there is no alternative allocation that leaves everyone at least as well off and makes some people strictly better off. If a situation is not Pareto efficient, it means that there is some way to make somebody better off without hurting anyone else. Pareto efficiency does not reflect distributional concerns, and different distributions of societal resources will lead to Pareto efficiency. The ability of a competitive market to achieve

Pareto efficiency reflects its value (Varian, pp. 15,16;296).

REQUIREMENTS FOR EFFICIENCY IN A COMPETITIVE MARKET

Efficiency in a market economy requires the existence of six general conditions. Henry Grabowski and John Vernon summarize these necessary conditions:

- a large number of producers and consumers in each market sector
- goods and services that are homogeneous
- easy entry and exit out of all market sectors
- all producers and consumers have complete and accurate information
- producers strive to maximize profits, while consumers maximize their utility from consumption
- goods and services are private in that there is no spillover of costs and benefits onto external parties (Grabowski and Vernon, p.4)

When these six conditions prevail in a market economy, no welfare-improving reallocations are possible under the existing equilibrium prices. Government intervention will not increase social welfare and unencumbered perfect competition results in optimal resource allocation (Grabowski and Vernon, p. 5).

The possibility exists that government intervention will lead to a more efficient allocation of resources when any of the six conditions previously discussed are violated. In fact, in many real world situations these sufficient conditions for maximum social welfare do not occur. These "market failure" cases will be considered in the next section when government intervention can be justified on efficiency grounds (Grabowski and Vernon, p. 5).

NORMATIVE GROUNDS FOR MARKET INTERVENTION

MONOPOLY POWER

In contrast to the perfectly competitive situation in which many firms produce a homogeneous good under conditions of easy entry, a monopoly case involves a single firm producing in a market with high entry barriers and no close product substitutes. Monopoly leads to allocative efficiency losses as a monopolistic firm maximizes profits with higher prices and lower output in comparison to an efficient competitive market outcome. Since society "underconsumes" a monopolist's product, economic efficiency would improve through a reallocation in which the monopolist produces more output relative to those products competitively supplied (Grabowski and Vernon, p. 6). A comparison between the price and output equilibrium levels of monopolistic and perfectly competitive firms illustrates the allocative inefficiency associated with monopolies.

Under monopoly conditions, price is always greater than marginal cost so that the value consumers attribute to another unit of output is always greater than the cost of producing that unit of output. The monopolist produces too little output relative to the output which would be produced by firms under perfect competition when price = marginal cost. The recovery of this "dead-weight loss" in output is the primary economic justification for promoting a competitive market structure through government intervention (Grabowski and Vernon, p. 8).

The main policy remedy to reduce excess market power is antitrust legislation. Anti-trust laws generally prohibit certain behavioral practices such as the discussion of output strategy among competitors. The government may outlaw mergers between significant competitors or potential competitors or remove entry barriers which might prohibit competitors from entering the market. Also, monopolies may be broken up into separate firms to promote competition (Grabowski and Vernon, p. 9).

NATURAL MONOPOLIES

The case of "natural" monopoly occurs when considerable economies of scale exist over much of the demand region for a product such that it is more cost-efficient to have only one firm producing in the market. If more than one firm supplies the product, as the government would encourage under normal monopoly conditions, the benefits of scale economies are lost as several firms will supply output at inefficiently high production costs (Grabowski and Vernon, p. 10).

Governments have attempted to resolve this problem through various means. In the United States, regulatory commissions are often established to restrict entry into the market to a single firm and to set maximum pricing schemes. The commission seeks to allow monopolies to earn only "fair" or competitive rather than monopoly profits from its invested assets. Another plan for gaining the benefits of scale economies while avoiding allocative efficiency losses involves government ownership. The government owned and managed firm then decides the price and output levels of the monopoly. Examples of natural monopolies include local utilities supplying electricity, gas, water, and telephone services (Grabowski and Vernon, pp. 12-13).

When natural monopolies do not exist, it is often more efficient to allow market forces supported by strict anti-trust policy to achieve efficient market outcomes because regulation often leads to its own market distortions and inefficiencies. However, in the clear natural monopoly case, only regulation will alleviate allocative inefficiencies and maintain the benefits of scale economies (Grabowski and Vernon, p. 13).

EXTERNALITIES

Government intervention may increase efficiency when externality or spillover effects result from economic activities. Specifically, markets will not lead to an efficient allocation of resources when the costs and benefits of any good or service are not borne fully by the producers or consumers of that good or service. Pollution serves as an example of a negative externality which will lead to a sub-optimal allocation of resources (Grabowski and Vernon, p. 13).

A firm may pollute the area surrounding its factory, without any regard for the disutility forced on its neighbors when it creates a product. Since neither the owners of the firm nor the consumers of the product will bear the full costs of the pollution, the owners have little incentive to reduce pollution costs. The inefficiency associated with this externality situation lies in the divergence of social costs from private costs (Grabowski and Vernon, p.13).

The social cost of the pollution exceeds the private cost incurred by the firm. Since the firm does not incur the pollution costs borne by its neighbors, the company will not be economically motivated to either reduce output or purchase pollution abatement machinery. Thus, an oversupply of the pollution-producing good and undersupply of the pollution abatement machinery will result from this externality situation (Grabowski and Vernon, p. 14).

In this negative externality example, government intervention can effectively eliminate the gap between marginal social benefits and costs of investing in pollution abatement equipment which occurs under competitive market conditions. The government can institute various policies which reduce firm incentives to pollute and consequently lead to a more efficient allocation of resources. The primary objective of government regulation is to make firms "internalize", or face the external costs, of their actions. The government may institute pollution abatement requirements ("command and control" approach) or impose taxes on pollution ("economic incentives" approach) to reach the socially desirable pollution level (Grabowski and Vernon, p. 17).

INFORMATION ASYMMETRIES

Uncertainty and information problems serve as another justification for government intervention in the market. Under conditions of perfect information, consumers and producers have sufficient knowledge of all goods and services. Free choice results in optimal product quality aspects, thus low quality products need to be priced sufficiently low (or offer other benefits) to attract buyers (Grabowski and Vernon, p.21).

However, one rarely encounters the situation of perfect information in the real world. Adverse selection refers to situations where certain characteristics of an agent are unobservable so that one side of the market has to guess the type or quality of a product based on the behavior of the other side of the market. An example of the adverse selection problem occurs in the insurance industry. If an insurance company wants to offer insurance on bicycle thefts, it may have trouble distinguishing high from low bicycle theft areas. If the insurance company offers insurance based on the average theft rate, it will go bankrupt quickly. The people in safe communities won't buy insurance while those in high risk areas will. In markets involving adverse selection it may be the case that too little trade takes place. Thus, it is possible that everyone can be made better off by requiring the purchase of insurance that reflects the average risk in the population (Varian, pp. 586-7).

Another market failure occurs when consumers and suppliers have different information about the quality of the goods being sold. If buyers cannot distinguish high from low quality goods, they may only be willing to pay the average value of a particular good. More specifically, if sellers have perfect knowledge of a product's quality while purchasers do not, it is possible that only low quality goods will be provided. Akerlof pointed out this problem in the used-car market in his 1970 paper, "The Market for Lemons: Quality Uncertainty and the Market Mechanism". The source of market failure is that an externality exists between the sellers of good products and bad products. When an individual decides to sell a bad product, he affects the purchasers' perceptions of the quality of the average product on the market. This lowers the price that people are willing to pay for the average product, and hurts people who are trying to sell better products. Consequently, too few high quality goods may be supplied under certain asymmetric information situations (Varian pp. 384-5).

Government intervention can effectively reduce the negative impact of information problems. Officials can require producers to provide reliable information on labels of products or enforce pre-market screening of goods. In general, licensing and standards will be most effective when providing information imposes high costs and making incorrect choices based on inadequate information leads to substantial costs (Grabowski and Vernon, pp. 21-22).

PUBLIC GOODS

A public good is characterized by its collective consumption and non-excludability. National defense, a common example of a public good, fits this criteria in that everyone gains security and no individual can be excluded from enjoying the collective benefits of defense. Under certain conditions, the social benefits are so much larger than the individual private benefits from a public good that market incentives do not lead to the private provision of the good (Grabowski and Vernon, p.18).

Since the benefits accrue collectively to everyone independent of their contributions, public goods are undersupplied in a market economy. Non-contributors or "free-riders" cannot be excluded from consuming the public good benefits and have an incentive to allow others to provide the good. Thus, government intervention may be necessary to provide the socially optimal amount of a public good (Grabowski and Vernon, p. 20).

FREE MARKET VS. GOVERNMENT INTERVENTION IN EAST GERMANY

LABOR MARKET

Argument for Government Intervention

In the previous section it was shown that government intervention may increase economic efficiency when externality or spillover effects result from economic activities. Markets do not lead to an efficient allocation of resources when individuals or firms do not bear the full costs or benefits of their actions. In the case of East Germany, the high unemployment rate has resulted in a negative externality in the labor market. Specifically, the recently displaced East German worker does not bear the full cost of his action of filing for unemployment. By searching for vacancies, he reduces the probability that other already unemployed East Germans will find a job. The newly displaced worker waits in line because of the low private marginal cost of the action. However, the marginal social cost of another worker waiting in line exceeds the marginal social benefit of an extra unemployed East German. Consequently, economic efficiency would improve if fewer people were unemployed and the marginal social cost of another unemployed East German was just equal to the marginal benefit.

Treuhandanstalt Intervention

The Treuhandanstalt has interfered in the labor market by imposing employment and investment conditions on privatized firms and sustaining employment through government backed loans to unprofitable companies. Although the negative externality associated with high unemployment provides the possibility of efficiency gains through government intervention, the Treuhandanstalt could have realized other efficiency gains by not interfering in the market.

By imposing employment and investment conditions on prospective purchasers, the Treuhandanstalt sustains unviable firms and delays the privatization process. Although a *market* failure associated with the long unemployment lines exists, regulation has imposed new distortions in the labor market. Specifically, it has decreased social welfare by preventing the free market from realizing the Pareto efficient allocation of resources. The agency does not have perfect information of the viability of firms, and wastes resources by allocating labor to inviable firms.

Argument for Retraining Programs

East German workers had little if any prior knowledge that unification with West Germany would occur. The skills which they possessed were oriented to the distorted East German economy–i.e..... the COMECON–which did not allow them to sell products competitively in international markets. In a sense, East German workers were producing and selling "wheel-barrows" when without their knowledge the Berlin wall crumbled and they were expected to produce and sell "BMWS" to survive economically.

The presence of information asymmetries, as discussed earlier, provides an economic justification for government intervention on the grounds of potential efficiency gains. Since banks and other lending institutions do not have perfect knowledge of the ability of workers to retrain and profit from acquiring new skills, they may offer funds for education at flat interest rates which approximate the average riskiness of investment.

However, workers have varying levels of accessibility to capital markets. Specifically, richer workers seeking new skills will have an advantage over poorer displaced worker. Society would result in having too many rich/low ability retrained workers and too **few** poor/high ability workers without government intervention. Consequently, this information asymmetry justifies government intervention in the capital market to provide equal access to retraining funds for both rich and poor displaced workers.

Capital Market

Argument for Government Intervention

An information asymmetry exists as both West and East German banks cannot accurately assess the viability of East German enterprises. Given the lack of reliable data on Eastern companies and riskiness of investment, banks would either not loan funds or only offer loans at extraordinarily high interest rates to East German enterprises. Consequently, this market failure would result in too few of the viable East German firms receiving funds. This information asymmetry provides the economic justification for government intervention in the capital market to increase social welfare.

Treuhandanstalt Intervention

The Treuhandanstalt backed loans amounting to DM 10 billion between July and September of 1990, and has the authority to cover loans to East German companies of up to DM 30 billion. Although clear information asymmetries exist, a brief cost-benefit analysis of government interference in the German capital market reveals serious inefficiencies associated with the current policy.

The benefits of government intervention in the capital market include increased access to funds for viable East German firms and overall higher investment and employment in East Germany. It should be noted that investment and employment in **unviable** East German firms is not a benefit. Extending credit to inefficient firms with unremediable structural problems is equivalent to pouring cash into a black hole. The costs of intervention in the capital market include reduced incentives by banks to monitor the riskiness of loans, a financial burden on the Treuhandanstalt, and losses incurred by unviable firms. The German government's decision to back loans to East German firms creates a safety net that distorts bank incentives. Banks will lend more readily to unhealthy East German companies with the knowledge that the German government will back the loans. This problem has been exacerbated by the absence of a timetable establishing when the government will stop backing loans to East German enterprises,

Although information asymmetries exist in the German capital market, the present government intervention creates its own distortions by allowing and encouraging lending from banks to unviable firms. A government policy which aids the creation of new firms in East Germany might be warranted, but the current system facilitating loans to both viable and unviable East German firms will not lead to a more efficient allocation of resources.

Lessons From East German Privatization

This paper does not attempt to determine the optimal pace of privatization, but the events in East Germany offer some insight into the problems associated with slowing the transition from a command to market economy. The Treuhandanstalt has slowed the privatization process by imposing employment and investment conditions on purchasers and temporarily maintaining state-owned companies. Along with the long term economic inefficiencies associated with its policies, the government has been unable to significantly reduce unemployment.

Rudiger Dornbusch offers another privatization program which deserves attention in light of the economic failures in East Germany. He argues that East German firms have no intrinsic value and must be allowed to fail as soon as possible. Dornbusch cites the successful Mexican privatization experience in which the government closed two thirds of state companies to support his policy recommendations (Akerl'of et al, p.100). More generally, the Dornbusch position advocates a rapid transition from a command to market economy with an acceptance of massive unemployment while the East German government alters its economy (Wall Street Journal, 8-30-91). The current depression in East Germany suggests that officials should consider the Dornbusch position closely.

Conclusions

There are few, if any, precedents for the transition from a command to market economy. In a sense, the recent events in East Germany and other Eastern European countries represent economic problems never before encountered. Despite the novelty of the challenges presented by German unification, government officials must not sway from economically sound policies. Economic theory generally accepts only four cases when government intervention in the free market is justified: externalities, monopolies, information asymmetries, and public goods. While market failures exist in the labor and capital markets, the Treuhandanstalt must closely consider its policies to insure that the costs of regulation do not outweigh the benefits of eliminating a market distortion. The agency should only pursue policies which increase social welfare, and ought to lean towards market forces when the case for government intervention is questionable.

BIBLIOGRAPHY

Akerlof, George A., Andrew K. Rose, Janet L. Yellen, and Helga Hessenius. 1991. "East Germanv in from the Cold: The Economic Aftermath of Currency Union." *Brookings Papers on Economic Activity* 1: 1-105.

The Economist. Various Issues.

Grabowski, Henrv and John Vernon. "Market Failure: The Normative Basis for Government in a Market Economy" , Chapter 2.

Lipschitz, Leslie. "Introduction and Overview." 1990. In *German Unification: Economic Issues,* edited by Leslie Lipschitz and Donogh McDonald. Occasional Paper 75. Washington: International Monetary Fund.

Lipschitz, Leslie, and Donogh McDonald, eds. 1990. *German Unification: Economic Issues.* Occasional Paper 75. Washington: International Monetary Fund.

Lipton,D. and Sachs, J. 1990. "Privatization in Eastern Europe: The Case of Poland", *Brookings Papers on Economic Activity* 2: 293-341.

Mayer, Thomas, Donogh McDonald, Garry J. Schinasi, and Gunther Thumann. 1990. "Economic Developments in the Federal Republic of Germany" In *German Unification: Economic Issues,* edited by Leslie Lipschitz and Donogh McDonald. Occasional Paper 75. Washington: International Monetary Fund.

Mayer, Thomas and Gunther Thumann. 1990. " German Democratic Republic: Background and Plans for Reform." In *German Unification: Economic I Issues,* edited by Leslie Lipschitz and Donogh McDonald. Occasional Paper 75. Washington: International Monetary Fund.

The New York Tinies. Various Issues.

Schinasi, Garrv J., Leslie Lipschitz and Donogh McDonald. 1990. "Monetary and Financial Issues in German Unification." In *German Unification: Economic Issues*, edited by Leslie Lipschitz and Donogh McE)onald. Occasional Paper 75. Washington: International Monetary Fund.

Sicbert, Horst. 1990. "The Economic Integration of Germany" Discussion Paper 160, Kiel: Kiel Institut fur Weltwirtschaft (May).

Varian, Hal R. 1990. *Intermediate Microeconomics: A Modern Approach,* London: W. W. Norton and Company.

Vickers, j and Yarrow, G. 1988. *Privatization: An Economic Analysis*, Cambridge, MA: MIT Press.

The Wall Street Journal. Various Issues.