Industrial Policy in Hungary and Slovakia: The Impact on the Firm-Level Performance of Diósgyőr Steel Works and Eastern Slovakian Steel Works

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Abstract

This thesis has its roots in a basic yet controversial debate in economic policy- namely, whether or not industrial policy has a role to play in a state's economy. Given the current context of industrial decline globally, and more specifically in the post-socialist economies of Eastern Europe- governments are finding this question increasingly relevant as they seek to maintain and create jobs for the unemployed. In this thesis I will address this debate, but through the narrow lens of how industrial policy has played a role in the success and failure of two specific Eastern European steel firms; Diósgyőr Steel Works in Northeastern Hungary, and Eastern Slovakian Steel Works in Eastern Slovakia. Once similar sizes with labor forces around 18,000, one is now a successful and well-known firm, and the other has sunk into disuse and anonymity. Seeking to better understand if, and if so, how, industrial policy played a role in these firm's divergent outcomes, I examine the initial conditions of these firms and then the different policies pursued by each country in the stages of privatisation and restructuring. I argue that initial conditions mattered, but were by no means all defining, and highlight the specific ways industrial policy impacted firm performance. The piece closes with a discussion of the relatively new and very powerful actor in industrial policy in Eastern Europe, the EU, and what knowledge from this research can and should be taken as prescriptive.

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Table of Contents

Introduction

The fall of communism in 1989 radically changed the economic structure of Central and Eastern Europe (CEE). In Hungary output dropped 18% from 1989 until 1993, and Slovakia during this time lost 25% of its output.[1] Consequently unemployment skyrocketed with the rate raising 10.4% in Hungary from 1990 to 1993 and 12.8% in Slovakia.[2] Seeing this transformational recession begin, states turned to industrial policy to intervene and slow, or at least buffer the impact of the changes on their populations. Transitioning countries had to make a choice: preserve the past industrial structure by maintaining state ownership in firms or privatizing only to domestic citizens, and restructure their existing stock of industries extensively, or adopt the free market ideology wholly and privatize all their firms, open their economy to foreign investors, and limit funds for restructuring; letting the market decide which firms can survive in the new economy. In essence, this was a choice of industrial policy, and countries tried in the decades following the fall of communism to determine how much state intervention into their economy was appropriate given the challenging circumstances they faced. In the face of these circumstances, namely the entrance into competitive global markets, the reorientation of trade from East to West, and the European Union (EU) accession process, I find that most countries adopted mixed industrial strategies, responding at times to pressures to intervene, and at times continuing on a liberal course.

To determine how industrial policy choices affect individual firm performance and thus provide some guidance for the new actor handling industrial policy for the

[1] Dora Győrffy, "Structural Change without Trust: Reform Cycles in Hungary and Slovakia," *Acta Oeconomica* 59.2 (2009), 154.
[2] László Csaba, "A Comparative Overview of Empirical Evidence," *The New Political Economy of Emerging Europe*, (Budapest: Akademiai Kiado, 2007), 79.

transition economies, the EU, I examine in this paper the initial conditions of two specific firms with very different long-term performance trajectories; Diósgyőr Steel Works and Eastern Slovakian Steelworks. After examining possible causes of their different performance, from initial conditions to industrial policies, I argue that initial conditions of the firms at the end of communism mattered, but were not all defining, and additional divergence in performance was caused by the industrial policy choices pursued by the two states at the firm level - particularly in the privatization and restructuring stages.

Though many scholars have examined the choices made in this time period, from the robust interventions to free-market orthodoxy, most focus on Western Europe or the EU. [3] These countries are certainly interesting to look at when examining industrial policy due to the decline in old industrial structures - but they do not face the same set of challenges as those countries in the transition context. Therefore I focus my study on the CEE, and primarily the states of Hungary and Slovakia. Another difference of my study is that most examinations of industrial policy look at its impact at the sector level, and usually automobiles are the focus of these numerous studies.[4] Though again interesting, industrial policies impact individual firms in a number of ways that are difficult to grasp in enough detail at the sector level, and increasing numbers of policymakers and scholars are advocating looking at the firm level for more precise information.[5] Therefore, I will

[3] For example see: Birch, Kean, Danny Mackinnon, and Andrew Cumbers. "Old Industrial Regions in Europe: A Comparative Assessment of Economic Performance." *Regional Studies* 44.1 (2010): 35-53. *JSTOR*. Web. 14 Feb. 2011., and and Cohen, Elie. "Industrial Policies in France: The Old and the New." *Journal of Industry, Competition and Trade* 7.3-4 (2007): 213-27.

[4] For example see: Rhys Jenkins, The political economy of industrial policy: automobile manufacture in the newly industrialising countries, Cambridge Journal of Economics (1995) 19 (5):625-645.

[5] For example see: Gordon Hughes, and Paul Hare, "Industrial Policy And Restructuring In Eastern Europe," ***Oxford Review of Economic Policy*** 8,1 (1992), [Accessed Feb. 12, 2011 from JSTOR database],

focus on state interactions with the economy at the firm level by examining the impact of the practiced industrial policy of Hungary and Slovakia on two specific firms, one located in each state: Diósgyőr Steel Works (Diósgyőr Acel Muvek/DAM) in Hungary, and Eastern Slovakian Steel Works (Vychososlovenske zeleziarne/VSZ) in Slovakia. Though both firms employed approximately 17,000 people in the mid-1980s, by 2008 DAM had shut its gates, and was employing approximately 80 people, whereas VSZ was bought by U.S. Steel in 2000 and is still a successful company.[6]

DAM and VSZ are of particular interest because they are within the steel sector - a sector which has declined or is in decline all over the developed world but has attracted less academic attention than the automobile industry despite its similar circumstances and long-term social impacts. Steel cities from Pittsburgh, United States to Dunajuvaros, Hungary are struggling to stay competitive in an increasingly global environment. Though the decline in the steel industry began in the West around the same time it took off in the East; and partly as a result of it- these different cities are now facing similar fates as production moves further east to China and India. Actors around the world are asking - can labor intensive industries survive globalization?[7] Moreover, if they cannot survive by facing market forces alone, should the government help them? This question has real relevance due to the socioeconomic realities of the regions these firms are located within. Eastern Hungary, and more specifically Northeastern Hungary where

and** T. Buck**, I. Filatotchev**,** N. demina**, and** M. Wright "**Exporting Activity in Transitional Economies: An Enterprise-Level Study" The Journal of Development Studies. 37.2 (2000). 44-66.

[6] Krisztina Than, "In Eastern Europe, Industries That Survived Communism Now Crumbling," *New York Times*, 22 July 2009, [Accessed Feb.18, 2011, from http://www.nytimes.com/2009/07/23/business/global/23rust.html?_r=1].

[7] For example see: Pack, H. "Is There a Case for Industrial Policy? A Critical Survey." *The World Bank Research Observer* 21.2 (2006): 267-97.

DAM is located, suffers from the highest level of unemployment in the country at 16%.[8] A large percentage of that number is composed of those people laid off from DAM. Similarly, in the regions surrounding Košice, the city where the former VSZ and now U.S. Steel is located, approximately 21% of people were unemployed in 2010. Compare this to the Bratislava region where unemployment is approximately 4-5% of the population and it becomes clear how dire the situation is, and would be if U.S. Steel were ever to close.[9] Therefore, unemployment in areas home to labor intensive industries is a global issue, as well as highly relevant in the Hungarian and Slovak context. Moreover, the steel industry is an interesting sector to examine due to its comparatively under-researched yet widespread nature. The assessment of just two firms, DAM and VSZ, and the factors for failure or success should lead to a more detailed and deep view of industrial policy and its impact on firms than other studies which often do not include specific firm-level case studies that allow one to see the multiple ramifications of a decision so clearly. Therefore, this paper could help policymakers understand how certain choices have real impacts on firm performance in the long-run and help provide some guidance for the new actor handling industrial policy for the transitioning countries- the EU.

[8] Hungary, "Economy and Society January - December 2010," Ed, Istvan Szabo and Monika Freid, Hungarian Central Statistical Office 2011. [Accessed May 17, 2011, from http://portal.ksh.hu/pls/ksh/docs/eng/xftp/gyor/jel/ejel21012,pdf].

[9] Slovakia, "Regional Statistics Database," *Statistical Office of the Slovak Republic*, [Accessed 17 May 2011, from http://pxweb.statistics.sk/PXWebSlovak/index_en.htm].

Defining Industrial Policy

Defining industrial policy is a challenging task due to the wide variety of definitions, but important because specific components of the definition will form the framework by which I will analyze the Slovak and Hungarian government's policies towards the firms.

Unlike monetary or fiscal policy, scholars point out that industrial policy can be an ambiguous term, and can sometimes be applied to mean interventions affecting the macroeconomic level, the industrial level at the sectoral or branch level, and finally the enterprise or firm level.[10] Industrial policy can also be defined by the tools it employs rather than the level of the economy it affects. A broad definition may define it as, "all measures or sets of measures used to promote industrial structural change," and include any number of actions that either preserve the current industrial structure through assistance and modernization or subsidize new activities and increase global competitiveness.[11] For instance, Patrine Bianchi and Sandrine Labory, experts in industrial policy and authors of the International Handbook on Industrial Policy, look primarily at the tools of industrial policy in their definition, developing the 11 main lines of industrial policy that can be seen in the Annex.[12] An important piece for portraying the wide array of interventions that can fall under a definition of industrial policy, this list is nonetheless quite broad and in this paper only some of the tools will be discussed such as nationalization, subsidies, and supporting relations between firms and banks.

[10] Paul Hare, "Industrial Policy in Eastern Europe: the Case of Hungary," *Atlantic Economic Journal* 1 June 1994. [Accessed Feb. 14, 2011 from Highbeam Research database].
[11] V. Curzon Price, "Industrial Policies in the European Community," (1981).
[12] Patrizio Bianchi, and Sandrine Labory, "Empirical Evidence on Industrial Policy Using State Aid Data," *International Review of Applied Economics* 20,5 (2006), [Accessed Feb.12, 2011, from JSTOR database.] 606.

Other definitions of industrial policy on the other hand emphasize the importance of one specific element of industrial policy over others. Eric Hanley, Lawrence King, and Istvan Toth Janos do just this in their paper *The State, International Agencies, and Property Transformation in Postcommunist Hungary* where they highlight an under-researched area of industrial policy, the manipulation of property rights. They note that political economists usually focus on directing investment, subsidizing industries, erecting tariff barriers, and imposing currency and price controls while neglecting to study the manipulation of property rights as an element of industrial policy. Hoping to change this, the authors cite John Campbell and Leon Lindberg, who write that "the state is capable of exerting a pronounced influence on economic processes through the manipulation of property rights alone."[13] In the specific Central and Eastern European (CEE) context, Hanley et al. note that the process of privatization gave the state an unparalleled opportunity to encourage and direct certain actors, for instance domestic ones, to take larger roles in the economy by subsidizing the sale for certain buyers. [14] This behavior is highly visible in the cases of DAM and VSZ and therefore this manipulation of property rights is an immensely relevant component of industrial policy for this study.

Moving away from these more nuanced definitions, there are also extremely narrow and broad definitions which limit or include so many facets that they are not very helpful for our study. For instance, a very narrow description of industrial policy is purely state aid to industry in the purely financial sense such as through subsidies or tax breaks.

[13] Eric Hanley, Lawrence King, and Istvan T. Janos, "The State, International Agencies, and Property Transformation in Postcommunist Hungary," *The American Journal of Sociology* 108,1 (2002), [Accessed April 18, 2011, from *JSTOR* database]. 143.
[14] Ibid 144.

An overly broad definition, on the other hand, however would even consider actions at the macroeconomic level and count as industrial policy all policies "concerned with establishing and sustaining the general environment within which the whole economy functions."[15]

Rather than selecting a particular definition from the nuanced or overly exclusive and inclusive ones above, I find it more useful to look at several key elements present in many definitions of industrial policy that will enable a structured analysis of state interactions with these firms over nearly two decades. The four key elements of industrial policy that will serve as the framework for this paper were conceived by Miroslav Beblavy, a Senior Research Fellow at the Centre for European Policy Studies, a member of the Slovak Parliament since 2010, and the former State Secretary of the Ministry of Labour, Social Affairs and Family in Slovakia. Beblavy outlines crucial elements of the term in a report describing the industrial policy of his home country by looking at 4 crucial choices every government must make.[16]

The first choice Beblaby examines is whether the state chooses to privatize or maintain state ownership. Second, he examines the choice made by the state on who to privatize to, a domestic actor or a foreign actor, and which firms to privatize, all firms or just ones deemed non-strategic. These first two choices will be discussed heavily in Chapter 1 Section 2 of this paper on privatization. The third choice relates to a country's long-term choices as regulator in a transition economy, and centers on the discussion of

[15] Hare 2

[16] Miroslav Beblavy, "Industrial Policy," *Economic Policy in Slovakia 1990-1999*, Ed, Miroslav Beblavy and Anton Marcincin, Bratislava: Center for Social and Media Analysis, Research Center for the Slovak Foreign Policy Association, and Institute for Economic and Social Reforms, Slovakia, INEKO, 2000, [Accessed on Feb.14, 2011, from www.ineko.sk/file_download/25/publications_economic_policy.pdf]. 230.

how involved government should be in correcting distorted prices and determining priorities. Finally, the fourth decision regards the loan policy adopted by the government as a shareholder in a bank. These last two choices will be discussed in Chapter 1 Section 3 of this paper on restructuring with a particular emphasis on the loan policy as an industrial policy decision which played a particularly large role in VSZ and is therefore highly relevant to our study.[17] To simplify, the four choices which I will call Industrial Policy Decision Points are made clear in the chart below.

Table 1.1

IP Decision Points	Option #1	Option #2
1. Privatization Stage	Maintain State Ownership	Privatize
2. Priorities: Choosing Owners, Choosing Industries	Sell to Domestic Owners, Sell Only Non-Strategic Enterprises	Sell to Domestic & Foreign Buyers, Sell Any & All Enterprises
3. Long-Term Regulation Stage	Presumed Market Failures & Robust Interventions	Free-Market Rules
4. Loan policy	Loose fiscal environment & soft budget constraints	Tight fiscal environment - no special treatment

Table 1.1 Describes 4 crucial industrial policy choices made by governments

Determining the Role of Industrial Policy

The second section of the literature I discuss here centers no longer on the definition but rather on the perennial debate of whether or not industrial policy has a role to play in the economy, first in a broad, international context, and then in a CEE context. This debate is important to the broader paper because it shows us the reasoning behind the Slovak and Hungarian government's choices - both when choosing to actively intervene in their economies, or more specifically in the affairs of these two firms, and

[17] Beblavy 230.

when not. It also gives us a theoretical background on which to judge the planned and unplanned effects of state intervention that can be seen in these two cases. Therefore some of this literature will be referenced throughout the text.

To begin, there are two well-established opinions in the fundamental debate on the usefulness of industrial policy. The first is well-represented by Dani Rodrik, a Professor of Political Economy at the John F. Kennedy School of Government at Harvard, who avers that "successful economies have always relied on government policies that promote growth by accelerating structural transformation."[18] In a brief piece entitled *The Return of Industrial Policy* Rodrik argues that though economists "enamored with the neo-liberal Washington Consensus," have written off the usefulness of industrial policy, major leaders and consultants across the world are consulting their industrial policy playbooks to keep jobs in their countries or speed up structural change in developing countries - an end goal that has definitely motivated policies in Hungary and Slovakia. What determines success in industrial policy he writes, "is not the ability to pick winners, but the capacity to let losers go," meaning government's can "recognize mistakes in their industrial policy and withdraw support before they become too costly."[19] This concept will be interesting when we look at Hungary's industrial policy towards DAM in the late 1990s and 2000s, and try to determine if their support to DAM was too costly, or appropriate. Rodrik concludes - "industrial policy is back," and that the question is not whether it should be practiced, but how.[20]

[18] Dani Rodrik, "The Return of Industrial Policy," *Project Syndicate*, 12 Apr, 2010, [Accessed Feb. 14, 2011 from http://www.projectsyndicate.org/commentary/rodrik42/English].
[19] Ibid.
[20] Ibid.

There are as just as many scholars on the opposite side of the broad international debate however; arguing that industrial policy serves no purpose, and in many cases is even negative. This view is expressed well by Michael Heller, a political scientist specializing in development issues and the author of *Capitalism, Institutions, and Economic Development*. Heller conflates several of the aspects of industrial policy with the system of corporatism which he believes is inflexible for growth and prone to corruption, an assertion we will return to later in our discussion of Slovak industrial policy and the managers at VSZ.[21] Heller also makes the argument that there are better ways to support business growth than engineering the "financial incentives" that are prevalent in industrial policy. In his opinion it is better for governments to "focus on the economic incentives that nature provides" and in that endeavor focus on activities like improving the regulatory framework to ensure an equal playing field.[22] This view sees moral hazard and its effect on firm decision-making as the main problem with industrial policy.

The more specific debate over industrial policy in the context of the transition economies of Central and Eastern Europe (CEE) echoes these broad arguments but also includes some new ones. Even more so than the last, this debate is important for the argument in this paper because it describes the advantages and disadvantages of practicing industrial policy in a transitional context. Michael Landesmann and Istvan Abel are two such scholars that focus on the debate over industrial policy in transition countries and come out in nuanced support of the practice. In their book *Industrial*

[21] Michael G. Heller, "Link Exchange | The Economist," *The Economist - World News, Politics, Economics, Business & Finance*, 13 Apr. 2010. [Accessed May 28, 2011 from http://www.economist.com/blogs/freeexchange/2010/04/recommended_economics_writing_8].
[22] Rodrik.

Restructuring and Trade Reorientation in Eastern Europe, Landesmann and Abel begin their chapter on industrial policy by stating,

> While in the West the case for industrial policy is made on the basis of what the market cannot achieve, due to externalities, economies of scale, information problems, or capital market imperfection, in the present context of the transformation in Central and Eastern Europe the theoretical argument regarding industrial polices has to be widened.[23]

They emphasize that market failure is not the reason for intervention in the CEE, but rather the total non-existence of markets. In this undeveloped market environment lacking even market responses, "it would be hard for private economic agents to make rational long-term decisions without strong signals from government."[24] In the case studies of DAM and VSZ we can see this as true. Moreover, the re-orientation of trade from the eastern COMECON to the western markets is cosmic in size as far as the difference in competitiveness is concerned. In this unique circumstance, they argue persuasively, "it is questionable whether any type of industrial organization could respond sufficiently quickly to facilitate the necessary reorganization if left to market allocation alone."[25] Therefore, Landesmann and Abel argue there are a number of ways in which industrial policy can play a useful role in the transition process, for instance in the areas of infrastructural development, training, and the restructuring of state-owned enterprises.[26]

Paul Hare and Gordon Hughes also argue for the relevance of industrial policy in the transition context. The authors believe strongly that the success of the transition economies depends on their ability to assess the competitiveness of industries in their

[23] Michael Landesmann and Istvan Szekely, *Industrial Restructuring and Trade Reorientation in Eastern Europe*, (Cambridge: Cambridge UP, 1995), 314.
[24] Hare 2.
[25] Landesmann and Szekely 314.
[26] Ibid 314.

individual country, continuing industries in which they possess a competitive advantage, and stopping investment into others. Unfortunately however, this determination is made extremely difficult by the transition context, and in their article *Industrial Policy and Restructuring in Eastern Europe*, these authors, both professors of economics, emphasize that distortions in the new markets may "not provide sufficiently clear guidelines to the competitiveness of different branches" of industries or specific firms within them.[27] Moreover, "financial markets may not be developed enough to assure funding to these branches and/or firms which have the greatest long-term promise…."[28] Due to these market imperfections so present in 1994 when this article was published, they conclude that it is "not so unreasonable" to resist the impact of market forces on some firms and intervene in select circumstances.[29]

Not everyone sees a role for industrial policy in the transition context however. Olivier Blanchard, a former scholar of economics at the Massachusetts Institute of Technology and now Chief Economist at the IMF also sees the restructuring process advocated by others as key for firms to modernize and compete in the global markets; however he adopts what could be interpreted as more liberal recommendations.[30] Blanchard argues that in order to support the reorganization/restructuring process, the government's role should be to remove subsidies, harden the budget constraints of state owned firms, and establish market clearing prices. This view sees *ad hoc* policy interventions, such as those traditionally associated with industrial policy as policies

[27] Gordon Hughes, and Paul Hare, "Industrial Policy And Restructuring In Eastern Europe," *Oxford Review of Economic Policy* 8,1 (1992). [Accessed Feb. 12, 2011 from JSTOR database]. 84.
[28] Ibid. 84.
[29] Ibid. 99.
[30] Olivier Blanchard. "The Future of Macroeconomic Policy: Nine Tentative Conclusions," *IMFdirect*. International Monetary Fund, 13 Mar. 2011, [Accessed May 25, 2011, from http://blog-imfdirect.imf.org/2011/03/13/future-of-macroeconomic-policy].

which could result in inefficiencies, distortions, and suboptimal results.[31] Even Hughes and Hare agree with this to some extent, noting in their article that if state interventions are conducted "indiscriminately" rather than for specific firms, there can be very costly consequences."[32] This is true in the context of Hungary and Slovakia, and we will argue as to whether interventions in both were sufficiently discriminatory.

Finally, though all sides of the debate agree that the level of state intervention present in the planned economy under communism must be avoided, some people have taken this to mean all government intervention should be avoided and subscribe to a slippery slope type of argument where one intervention for one firm leads to economic planning for the rest of the economy. In the 1990s, it was in this logic that the term 'industrial policy' was banned from official circles like the European institutions.[33] Even in the present day, however, the legacy and fear of sliding back into a planned economic system has made 'industrial policy' a more controversial topic in the CEE context.[34]

From these debates we should take several ideas with us through the rest of the paper. First, there were real, practical reasons approved of by scholarship for countries to engage in the types of behaviors we will see in the following chapters. Second, the transition context placed these firms in a reality where market conditions truly did not exist, and this has to be taken into account when determining if the policies pursued were helpful or not in the firm's survival. Finally, despite this scholarly basis for reasoning and the benefits Hungary and Slovakia's choices may have on these firms, it is also important

[31] Bianchi and Labory 604.
[32] Hughes and Hare 99.
[33] Bianchi and Labory 604
[34] Bianchi and Labory 604.

to be aware of some of the problems industrial policy can encourage, such as corruption, and moral hazard and be watchful of them playing out in the histories of the firms.

Structure

Now that we have discussed these debates, I would like to briefly explain the structure of this paper. To begin, I have defined the term industrial policy and explained how it will be operationalized in this paper. With this first step completed, it is next key to explain my choice of case studies; a step I take next in the first section of my first chapter. With these two crucial steps of my paper complete, namely conceptual development and explanation of the case studies, I will move to Ch. 1's second and third sections which will highlight state interventions through the history of the firms. These sections; the first on privatization and the second on restructuring will help to answer how exactly industrial policy functioned in these two countries during these two stages, and how, if at all, it impacted the success of VSZ then U.S. Steel in Košice and the fall of DAM in Miskolc. After these detailed sections where I take into account initial conditions, and then policies, I come to my 2nd chapter where I draw conclusions based on the insights from my research and answer the question: what degree can the difference in performance be attributed to differences in the baseline conditions; and what can be attributed to industrial policy choices. I close with a discussion of how these findings can be relevant to the present day debates, emphasizing the EU's current role in the creation and approval of industrial policy and close with several normative statements drawn from my research.

To produce these results I have drawn primarily on two sets of sources while conducting my research: scholarly assessments of each nation's industrial policy and

newspaper articles citing actual government interventions. and interviews. I have read, but avoided using many official documentations of policy to the extent that real choices often depart immensely from stated industrial policy goals in the transition countries.[35] In addition, I will also rely heavily on information gleaned in eight interviews with highly relevant actors in the two firms' histories: 2 former or current Slovakian policymakers, three high-level managers of VSZ and DAM, 2 key figures in the Hungarian privatisation story, and a scholar of regional development. Due to the sensitive economic nature of the material however, few will be mentioned by name. Finally, for some specific data, I also draw upon the firm's publicly-published financial records, as well as data collected by the EU on state aid to industry.

[35] Beblavy 246.

Chapter I: Storytelling

1.1: Initial Conditions in Hungary & Slovakia: Countries of "Iron, Steel, & Machines"

In order to compare how Hungary and Slovakia's respective industrial policies affected the performance of DAM and VSZ, it is important to spend some time discussing the base line of these firms- including their differences as well as why they can be considered comparable firms for this study. In particular I look at steel's early development in the area, the firms' development under communism, as well as their labor forces, product lines, and competitive environments.

Diósgyőr Steel Works (DAM)

I begin with steel's early history in Hungary, and the specific history of Diósgyőr Steel Works (DAM). On July 28, 1770, Maria Therese signed a royal decree for a steelworks at Diósgyőr.[36] The "Hamor Steel Works," initially built in a valley, was moved in 1870 to its current location and quickly blast furnaces and an iron foundry were created. The years 1879 and 1882 saw upgrades in the plant such as the upgrade to Bessemer Steelmaking in 1882.[37] The next phase of great change however was not until 1948, when the Soviet Union and Hungary's own communists embarked on a program of building socialism in the country and made preparations for a 5-year plan designed to turn Hungary into "a country of iron, steel, and machines."[38] The Soviet Union, convinced of the imminence of a third world war, wanted to be prepared with armaments

[36] "Történelmünk" (History of DAM), [Accessed Feb. 10 2011, from http://www.bna.hu].
[37] Ibid.
[38] Mark Pittaway, "Creating and Domesticating Hungary's Socialist Industrial Landscape: From Dunapentele to Sztalinvaros, 1950-1958," *Historical Archaeology* 39,3 (2005), [Accessed Jan. 15, 2011, from JSTOR database.] 75.

and substantial machine production capabilities. However, they lacked these capabilities in the mid-1940s and thus the state placed an enormous emphasis on developing them. Chief among the tasks was expanding the steel industry and the factories in the Borsod region. Therefore Ozd and the Lenin Steel Works (later DAM) were expanded to become huge metallurgical combinates, a new steel facility was built south of Budapest at Dunajuvaros, and in 1949 the Technical University for Heavy Industry was founded in Miskolc.

In the 1970s, steel production at Lenin Steel Works, underwent some degree of modernization of production structures with the addition of a built-in stainless steel mill in 1975, an UHP electric air furnace in 1982 that could be used for processing recycled steel[39], and a phosphating plant was added in 1985.[40] These modernizations however were not overly extensive because of the socialist choices in Hungary that spread out investment over several factories. As stated by Michael Buroway, a self-described "participant observer of industrial workplaces" and professor at the University of California Berkeley who worked a year at Lenin Steel Works as a steel man, the "growth of a state socialist enterprise depends on state-dispensed investment funds," and therefore due to the three steel mills in Hungary, competition over funds was large in the socialist era.[41] Dunajuvaros was built by the socialists using new technologies while those in the Borsod region had merely been upgraded, and were in areas still operating with the previous century's technology. Moreover, the production of distinctive products; diverse high-quality steels at Lenin Steel Works and sheet steel at Dunajuvaros, put the two

[39] Interview Material. Kosice, Slovakia. May 2011.
[40] "Történelmünk" 1.
[41] Michael Buroway and Janos Lukacs, "Painting Socialism," *The Radiant Past: Ideology and Reality in Hungary's Road to Capitalism*, Chicago: University of Chicago, 1992, [Accessed Feb. 14, 2011, from http://burawoy.berkeley.edu/books.htm# Radiant Past]. 127.

firms under different ministries of influence: Ozd and Lenin Steelworks under the Ministry of Industry, and Dunajuvaros under the Ministry of Finance. This in turn, led to a rivalry among political forces and a roughly equal distribution of resources among the three factories.[42] By spreading investment among all three, however, the investments efficacy was "drowned in the surrounding obsolete technology." Thus, even though Lenin Steel Works received an advanced Combined Steel Works in the 1970s, it was "marooned among antiquated rolling mills and blast furnaces," a reality which led to inefficient production. The inequities between the steel industry at Borsod and Dunajuvaros were so great that it was even proposed at one point in a secret Soviet report that all production capacities should be moved to Dunajuvaros, but due to the socialist philosophy, and the fact that the town of Miskolc would cease to exist without the steel mill, the plans were not hatched.[43]

Relations with the Soviet Union itself also impacted the success of the firms under communism. Hungary, known as a less reliable ally to the Soviet Union than Czechoslovakia, was also given worse iron ore to use in steel production. Czechoslovakia received iron ore with 40-45% iron content, while Hungary received poorer quality ore with 30% iron content.[44] Nevertheless, despite these stumbling blocks, the mid-1980s were the "heyday" for the city surrounding Lenin Steel Works called Miskolc, a city with over 200,000 residents, most working in industry.[45] At one point in fact, about 18,000 people worked at Lenin Steel Works.[46] Many of these steelworkers had been trained at The Technical University for Heavy Industry (now University of Miskolc), giving Lenin

[42] Buroway and Lukacs 127.
[43] Ibid 127.
[44] Interview Material. Kosice, Slovakia. May 2011.
[45] Than.
[46] Than.

Steel Works and later DAM highly qualified and educated steel workers, engineers, and managers as well as a number of researchers to explore issues in the sector. The Borsod region was even called "the small Ruhr district" after the industrialized area of Germany based on the amount of heavy industry in the area.[47]

Before moving on to our discussion of the development of the steel industry in Slovakia, and particularly at VSZ, I look here at the product line at DAM as well as its competitive environment. This is important to further understand what other conditions might have affected firm performance outside of policy. Lenin Steel Works and later DAM specialized in producing long-products such as hot-rolled round steel bars, steel billets and blooms for manufacturing machinery.[48] A little production during communism also went to the manufacturing of driving mechanisms in trucks made in Gyor. [49] After the collapse of the Soviet Union , the firm re-oriented itself to the West with the buyers for these products largely concentrated in Hungary, Austria, and Germany. This relatively narrow market and specialization caused a number of difficulties for the firm. One challenge for instance was that specialized uses for the steel meant the quality had to be kept quite high to compete with other steel firm which increased the costs of production. [50] Moreover, the sheer size of the long products made DAM less competitive than had it produced steel sheets for instance. Whereas up to 24 tons worth of steel sheets could just be piled on top of each other into a truck, when transporting steel bars, poles, and rods,

[47] Istvan Bakos, "Causes and Regional Impacts of the Crisis in Metallurgy in the Borsod Industrial Region," *European Integration Studies*, Miskolc 5,1 (2006). [Accessed Feb. 20, 2011, from http://www.matarka.hu/koz/ISSN_15886735/GTK_vol_5_no_1_2006_eng/ISSN_1588-6735_vol_5_no_1_2006_eng_015-029.pdf].1.
[48] *DAM 2004 Acel-es Hengermu Kereskedelmi Es Szolgaltato*, (Steel and rolling mill of Commerce and Service) [Accessed February 18, 2011, from www.dam2004.hu/].
[49] Interview Material. Kosice. Slovakia. May 2011.
[50] Buroway and Lukacs 126.

each item took up a great deal of room in a truck.[51] Therefore the higher costs of transport had to be factored into an assessment of its competitiveness in long-product production, putting production in northeast Hungary at a further disadvantage due to the distance from some of its markets.

East Slovakian Steel Works (VSZ)

Though steel production in Slovakia has a long history, beginning primarily in the 13th and 14th centuries, the modern metallurgical factory which would eventually become U.S. Steel in Košice was not founded until April 1, 1959.[52] First built by the communists to feed the Soviet Union's hunger for steel machinery and weaponry, Vychodoslovenske zeleziarne (VSZ), or East Slovakian Steel Works, was built from the bottom up with modern technology. Built in the far Eastern part of the former Czechoslovakia, now Eastern Slovakia, VSZ benefited immensely from its geographic position close to Ukraine where much of the iron ore for steelmaking came from and the wide gauge rails that entered Košice from Ukraine. The fact that iron ore from the East did not need to be transferred to a train that could ride standard European gauge rails was an enormous asset for Košice.[53]

Moreover, due to its strategic importance to the Soviet Union, and closer relationship, the Soviet Union gave the steel works at Košice higher quality iron ore to produce with up to 45% iron content.[54] As it was founded as a strategic company in the former Czechoslovakia, in an area without other employment opportunities, the

[51] Interview Material. Kosice, Slovakia, May 2011.
[52] Anna Olvecká, "U,S, Steel Kosice Is Aware of Its Postion - Slovak Steel Giant," *SK Magazine*, 12, Apr. 2009. [Accessed May 18, 2011, from http://www.skmagazine.eu/en//article/read/83/us-steel-kosice-is-aware-of-its-position---slovak-steel-giant].
[53] Jan Marusinec, interview by author, Bratislava, Slovakia, May 2011.
[54] Interview Material. Kosice, Slovakia. May 2011.

communists invested immense sums of money into the factory for new technologies and capabilities, and created a large, closed metallurgical circle complete with a power plant. As scholar of regional development Oto Hudec notes, "the political and economic importance of the firm enabled it to adopt in advance the newest technologies from the former socialist countries, but also in a limited degree from the Western countries."[55] For instance, he notes that the IBM Mainframe S/370in was installed in 1974 at the steel firm despite an embargo. These investments made the company very successful and it added to its capabilities over time. In 1964 for instance, VSZ was able to produce its first metal plates with the addition of a tin plating machine. It had also quickly become a crucial player in the economy, generating approximately 9% of the entire Slovak GDP in the 1970s, and more than 12% of Slovak exports.[56]Employment in the Košice region flourished, and the general population of the city of Košice also expanded with 75,306 people living in the city of Košice in 1950 and 214,270 people in 1983.[57] Like in Hungary, the workers at VSZ were well-educated and many steel workers, engineers and managers for the plant attended the Technical University of Košice located in the city, and meant that VSZ had a well-trained labor force to draw upon for labor.

Finally, in regards to products and competition, VSZ produced flat-products using hot rolling and cold rolling technologies and finished them with zinc and other finishes. They sold these products to a wider market than had DAM sold its long products, selling to 70 countries though mostly in Europe, the eastern United States, and the Middle East.[58] About 10-15% of the finished product was/is used in car construction, while the rest was

[55] Oto Hudec and Miriam Sebova, "The ICT Sector Revolution in an Old Industrial Region of Slovakia," (Forthcoming Work). 9.
[56] Ibid 5.
[57] Ibid 5.
[58] Interview Material. Kosice, Slovakia. May 2011.

sold as supplies for the building industry and in tin plating like the kind used in tin cans. As the finished supplies were flat, it was cheaper and simpler to ship them then the varied products made at Diósgyőr.

1.2 - Industrial Policy Choices in Hungary and Slovakia

Despite these differences and similarities in development and firm characteristics, these two firms in Slovakia and Hungary unquestionably shared a common experience. Together with most firms in Central and Eastern Europe, DAM and VSZ fell subject to a "transformational recession" from the years 1989 and 1993 as they adjusted to the change from a planned eastern-oriented economy, to a market economy facing west. This change was unparalleled in scale due to several key factors. First, not only was it a directional shift in markets, but the CEE economies had to deal with a change from a seller's market to a buyer's market.[59] No longer were supplies constrained making it easy to sell. Now demand was constrained and firms needed to be competitive and innovative to capture demand. Second, the introduction of the market economy created a "stock-flow" problem. 'Stock' is "the existing resources (the capacities installed, workers' skills, technologies adopted)" which are the result of previous allocation decisions and 'flow' is the substantial investment flows it would take to build-up new capacities and/or reallocate existing resources. A stock-flow problem was an immense challenge during the transformational recession because existing stocks would die in a market economy without state intervention, but in order to intervene and upgrade they would have to

[59] Janos Kornai, "The Transformational Recession: The Main Causes." *Journal of Comparative Economics* 19.1 (1994), 41.

accumulate financial flows; something difficult to do in the early transition context. [60] The third challenge facing the economies was disruptions in coordination. After the fall of communism central planning was abolished but the "requisite new system of coordinating institutions… had not yet developed."[61] Fourth, the change to the market economy generally involved "the enforcement of efficiency," and was a problem for firms used to functioning under the non-budget restraints of the communist period. Finally, "the backwardness of the financial sector" was a major issue during the transformational recession. For instance it was found in this period that "banks are often more indulgent with their old than their new customers," and "find it hard to bring themselves to take harsh measures to force repayment."[62] Dealing with these immense changes at the firm level included two baseline activities: privatization and restructuring.

A. Privatization: Mistakes Are Made

At the end of the 1980's before the fall of communism in Hungary, 85% of the assets in competitive sectors were held by the state. 300 enormous industrial units composed of more than 1,000 employees produced 80-90% of the country's total production, and only 1,100 industrial firms even existed.[63] In Slovakia at the end of the 1980s, 99.3% of the economy was in state hands.[64] Privatization, defined by Karoly Attila Soos as "the transfer of the ownership of firms from governmental bodies to private pensions or organizations," was the first step countries had to take to adjust to

[60] Landesmann and Szekely 316.
[61] Kornai 45.
[62] Ibid 51
[63] Eva Voszka, "Privatization as a "Learning Process" - the Case of Hungary," *Successful Transitions, Political Factors of Progress in Post-socialist Countries*, Ed, Jan FoWielgohs, Helmut Wiesenthal, and Jürgen Beyer, Baden-Baden: Nomos Verlagsgesellschaft, 2001. Accessed Feb. 12, 2011, from http://www.penzugykutato.hu/files/Privatization_as_a_Learning_Process,pdf]. 2.
[64] Ivan Miklos, "Privatization in Slovakia During 1991-1995," MESA 10, [Accessed April 20, 2011, from http://www.internet.sk/mesa10/PRIVAT/GLOB95.HTM].

their new circumstances and move from a planned economy to a market economy.[65] As Beblavy points out in his framework, state governments had to choose at this point whether to maintain the status quo and hold tight to their enterprises or privatize them to others. Most countries chose to privatize the majority of state owned enterprise drawing on arguments of the higher efficiency of privatized firms, greater profits, and greater acceptance into the international community. Other countries, like Hungary, additionally had financial exigencies pushing them towards this choice. After deciding whether to privatize or not, the next state decision to affect the firm was deciding who the state holding agencies or banks would privatize to. Arguments for privatizing to domestic players centered on developing domestic business classes and localizing profits while arguments for privatizing to domestic and foreign investors focused on the higher profits to be obtained and the transfer of knowledge that could occur with foreign entry. No matter who the state decided to privatize to however, in the short term privatization increased unemployment and reduced demand. Due to this reality and the therefore controversial nature therefore of the privatization process, we see variance in the industrial policy decisions at this time with some states deciding to slow the privatization processes and direct ownership into domestic hands in exchange for what they felt would be a less painful transition. This variation will be seen in the case studies below with conclusions on their impacts to come later.

[65] Károly Attila Soós, *Politics and Policies in Post-Communist Transition: Primary and Secondary Privatisation in Central Europe and the Former Soviet Union*, (New York: Central European University Press, 2011). xix. .

The Hungarian Privatization

As mentioned above, at the end of the 1980's 85% of assets in competitive sectors were held by the state. Out of the 1,100 industrial firms that existed, only 300 enormous industrial units with more than 1,000 employees each produced 80-90% of the country's total production.[66] Therefore when it came time for privatization the job was to be immense, but not as large as it would be in some countries which had not even begun privatizing in the pre-1989 period. As for the process, due to the highly agglomerated nature of industry, local management held a great deal of power and this led to a very decentralized, dispersed model of decision-making where property rights were divided between both the party-state organization and enterprise management. From 1987 until early 1990 this structure underwent 'spontaneous privatization,' which was when large companies were atomized into smaller enterprises with an enterprise council or 'holding company' holding a majority share in all of them.[67] From a large company, small local managers hoping to make money carved out a number of very small limited companies with maybe only 20 workers during this time period, hoping that at one point they may be able to buy the whole small company. Eventually, because of multiple problems inherent in this process, the task was transferred to the State Privatization Agency, or APV.[68] Even so, as Eva Voszka, a professor and researcher at Szeged University, writes, "It was not obvious who the seller of state assets would be," due to these various systems of holding property.[69]

Due to the immense amount of property in state hands and the desperate financial situation in Hungary at the end of 1989, however; someone would have to sell these

[66] Voszka 4.
[67] Ibid 4.
[68] Ibid 4.
[69] Voszka 2.

assets for a profit, and fast. In 1989, Hungary possessed net external debt of $16 billion, nearly 50% of its GDP, and one of the highest debt per capita rates in the world.[70] Therefore, it was decided by the state and international financial institutions that 85% of privatization revenues must be directed towards the repayment of debt.[71] With this goal, the rapid privatization of state owned enterprises was crucial and Hungary, taking a clear stance at the framework's Decision Point #1, began the privatization process. In Hungary, however, the accumulation of capital in private firms had been constrained by law until the end of the 1980s and domestic savings were therefore not large enough to buy the state assets that were placed on the market.[72] Therefore, initially, from 1990-1992, Hungary opened its doors to foreign buyers and in 1991 for instance, 3/4 of the enterprises were privatized to foreigners for cash. Immensely successful for the country's finances, the benefits did not seem to be trickling down to the people and domestic opposition began to mount against the privatizations to foreigners.

From 1992 onwards until 1995 consequently, Hungary departed from their earlier choice at Decision Point #2 to privatize to foreigners, and efforts began to "renationalize" state-owned enterprises by increasing domestic involvement in the privatization process. Primarily this meant finding Hungarian buyers for state assets, an activity that was encouraged by allowing Hungarian citizens to use compensation vouchers that had been issued at the end of communism as cash. In 1993 for instance, the government allowed people to purchase 20-40% of a state asset with vouchers.[73] Due to the constraints mentioned earlier, however, most average citizens were still unable to purchase the

[70] Hanley 146.
[71] Ibid 146.
[72] Voszka 4.
[73] Hanley 175.

assets, and therefore only enterprising Hungarians were able to afford it, with many of these citizens acquiring firms at half their value. Unfortunately, some of these people were "unable or unwilling to behave as long-term investors, and many quickly sold compensation notes even below the nominal value."[74] This leads the discussion directly to the case of DAM.

Lenin Steel Works (DAM) was one of three steel mills that operated in close proximity within the Borsod Region; one in Diósgyőr (our focus), one in Miskolc, and one in Ozd. As described above, the three factories were held temporarily in the late 1980s under one holding company; entitled the Borsod Metallurgical Trust. Later in 1991 though the Trust was cut into pieces and de-mergered and Diósgyőr, then known as Lenin Steel Works was privatized independently by a Soviet state-owned firm called Soyuz Ruda.[75] At this point the state privatization agency was handling the privatizations, and the "centralized decisions of an inexperienced, overloaded governmental agency, and the case by case approach in selling hundreds of firms, including small ones, did not help privatize quickly and at high prices."[76]

The privatization of Lenin Steel Works to Soyuz Ruda was no different. Soyuz Ruda was brought to Hungary by a Hungarian adventurer/middleman of sorts named Mr. Kliscna who was in possession of a Hungarian and Austrian passport. As a person working with the State Privatization Agency in these years stated, "when he (Kliscna) wanted to be a Hungarian citizen he pulled out his Hungarian passport, and when he

[74] Voszka 6.
[75] Peter Mihalyi, interviewed by author, Budapest, Hungary, May 2011.
[76] Voszka 4.

wanted to be a businessman he pulled out his Austrian passport."[77] Kliscna acted as a middle man between Soyuz Ruda, the former supplier of iron ore to Lenin Steel Works, and the Hungarian state privatization agency. On paper, Kliscna appeared the owner of the firm and when the Hungarian government approached the Hungarian people with the deal, it appeared that a nice Hungarian man was going to privatize the steel mill and save everyone's jobs. In actuality, however, it was the Russian state firm that had bought the firm in "disguise" with Kliscna's help. This was a common occurrence in this period.[78] Because Hungary was basically subsidizing the acquisition of state assets to Hungarians in order to promote domestic ownership, Soyuz Ruda obtained Lenin Steel Works for free, and the company promised to invest 530 million forinth into the factory and pay the company's 80 billion forinth debt.[79] Unfortunately for Hungary, the entire deal was a scam and Soyuz Ruda was unable to make the investments or pay back the debt and within a few months the entire firm fell into bankruptcy and liquidation.[80]

The Slovak Privatization

Compared to Hungary, the number of assets to be privatized in Slovakia was even more immense. In Slovakia at the end of the 1980s, 99.3% of the economy was in state hands compared to the 85% in Hungary.[81] This was because the Hungarian government had begun reforming property rights in the years before the fall while Slovakia had not experimented in this way. Extensive literature has been devoted to the Slovak privatization. Ivan Miklos, current Minister of Finance in Slovakia and Minister for

[77] Peter Mihalyi, *The Encyclopaedia of Hungarian Privatization*, University of Pannonia (Veszprém) and the Institute of Economics of the Hungarian Academy of Sciences, 2010, [Accessed May 3, 2010, from http://www.europe-ltd.com/english/privatization/English/121-new-the-encyclopaedia-of-hungarian-privatization].
[78] Peter Mihalyi, Interview.
[79] Mihalyi, Encyclopedia of HU Privatization..
[80] Mihalyi, Peter. Encyclopedia of HU Privatization.
[81] Miklos 1.

Administration and Privatization of National Property of the Slovak Republic from 1991-1992, writes that the process of large scale privatization in Slovakia was divided into two waves The first wave used voucher privatizations, with registration of citizens for vouchers beginning in November of 1991. [82] However, the voucher method did not last long and with changes in the law on large-scale privatization in late 1992, Slovakia quickly moved to more standard methods. Along with this change there was also a change which transferred authority to decide on privatization from the Minister of Privatization back to sectoral ministries. The second phase of privatization then began in September 1993 and was marked by a full switch to standard methods, mostly direct sales.[83] Unlike Hungary which initially opened up its economy due to debt problems, the Slovak government did not initially open up in this way and rather used the direct sale method of privatization to support the development of a "domestic entrepreneurial class." This was difficult however as Slovakia faced many of the same challenges as Hungary, in particular the fact that the domestic population could not afford to buy the assets put up for sale by the state in the second wave of large-scale privatization. In response to this problem, Slovakia, like Hungary, encouraged such sales anyways, creating innovative industrial policies that would allow them to manipulate the property rights as they desired. For instance, Miklos writes that "in the interest of supporting the development of a domestic entrepreneurial class," the government allowed "installment schemes for sales

[82] Ivan Miklos, "Privatization in Slovakia During 1991-1995," MESA 10, [Accessed April 20, 2011, from http://www.internet.sk/mesa10/PRIVAT/GLOB95.HTM]. .3

[83] Anton Marcincin, "Privatisation in Slovakia," *Economic Policy in Slovakia 1990-1999*, Ed, Miroslav Beblavy and Anton Marcincin, Bratislava: Center for Social and Media Analysis, Research Center for the Slovak Foreign Policy Association, and Institute for Economic and Social Reforms, Slovakia, INEKO, 2000,[Accessed on Feb. 14, 2011, from www.ineko.sk/file_download/ 25/publications_ economic_policy.pdf]. 303.

that deduct invested funds from the purchasing price."[84] This emphasis on finding domestic investors meant that the Slovak privatization process was quite slow so while 75% of Hungary's state-held assets had been privatized by 1996, only 44% of Slovakia's had underwent this process.[85]

Beyond this emphasis on finding domestic entrepreneurs, the Slovak privatization process was also marked by its highly political nature. The Slovak government's tendency to intervene in the market by manipulating property rights went beyond just encouraging domestic investors by actually assisting friends of the Prime Minister acquire large shares in previously state owned assets. For instance, in the second wave of large-scale privatization 58% of the total assets to be privatized were privatized through direct sales, while only 5% were privatized through public tender.[86] Miklos describes this below in his paper on the Slovak privatization.

> The privatization is uncontrollable and uncontrolled, there are no set rules for the game, there is no other way to obtain property than through gaining influence with the coalition parties and politicians. The principle of equality of chances is fundamentally suppressed and privatization proceeds according to a political key and depends on the willingness of potential buyers to accept other liabilities on top of those officially set by the National Property Fund.[87]

This may seem like an extreme characterization of the manipulation of property rights but they are actually supported by others who have written on the Slovak privatization process. Anton Marcincin discusses the opaque political nature of the Slovak privatization as well, giving examples of the National Property Fund's intense manipulation of property rights which often generated few to no revenues for the central

[84] Miklos 5.
[85] Voszka 4.
[86] Marcincin 303.
[87] Miklos 14.

government.[88] For what revenues there were, Miklos writes there was a 'reluctance' of the country to use expected revenues from privatization to cover the expenses of state debt service because they wanted to see the development of a business class. This brings us directly to a discussion of the privatization of VSZ which some consider a prime example of the abuse of the privatization process by the state privatization agency.[89] By using the privatization process as an opportunity to "reward friends, political partners, and relatives," the Slovak government seems to have failed to make a good choice at industrial policy decision point #2, which as we will see later had disastrous consequences for the firm.[90]

VSZ was privatized in 1992 to friends of Prime Minister Vladimír Meciar's named Alexander Rezes and Jan Smerek. This cronyism was typical of the Meciar period as after the fall of communism he had used his first tailored strategy of coupon privatization to reward his political allies and therefore the majority of new shareholders in large enterprises were those with close ties to the government[91] At VSZ Rezes acquired a controlling share for a fraction of its actual worth and secured easy credit for VSZ by buying interest at several of Slovakia's leading banks and using his and his partners past and present positions in government for gain.[92] Rezes, for instance, who had been given the post of Minister of Transport, Communications, and Public Works, used this post to obtain a 13.5% to 20% reduction in transport costs paid to Slovak State

[88] Marcincin 292.
[89] Marcincin 303.
[90] Michael Kopanic Jr, "Stealing the Eastern Slovak Steelworks: Part I & II," *Central Europe Review* 2,1 (2000), [Accessed April 8, 2011 from http://www.ce-review.org/00/1/kopanic1_steel.html].2.
[91] Marcincin 2.
[92] Ibid 4

Railways, saving VSZ 28.3 to 50 million U.S. dollars annually on the back of the flailing railway system amounted to a government subsidy to the steel mill.[93]

Moreover, using loose credit from state-owned banks, these two men were able to acquire huge shares of the company's stock for less than half the market price. This portrays the loose loan policy pursued by the Slovak government to support its industry at this point. Even more telling, Rezes and his company were able to buy controlling shares in a number of Slovak banks by buying them from state-owned businesses operated by the cabinet which Rezes headed. This extremely loose fiscal environment was at least initially fantastic for the company's profits and during its first year as a fully privatized company VSZ had annual sales of $1.66 million and accounted for 11.6% of Slovakia's total exports.[94] Moreover, it was quickly ranked as one of Slovakia's top 100 companies by the Slovak business paper *Trend*.[95]

However, similar to the Hungarian case, this first privatization of VSZ ended with the company in financial distress. Despite all this preferential treatment, in 1998 due to very irresponsible investments and spending on Rezes' part, VSZ defaulted on its $35 million syndicated loan from the American company Merrill Lynch.[96] Clearly neither Hungary nor Slovakia had made a good decision in choosing a buyer at Decision Point #2, a phenomena to be discussed more in the later comparative chapter.

[93] Marcincin. 4.
[94] Kopanic Jr. 3.
[95] Kopanic Jr. 3.
[96] Kopanic Jr. 2.

B. Restructuring the Steel Industry

After the privatization process was completed, firms were still not ready to compete in the new and challenging circumstances of the market economy. In order to survive in the buyer's market and solve the 'stock-flow' problem discussed earlier firms had to undergo restructuring. Olivier Blanchard, Wendy Carlin, and Phillipe Aghion, three professors of economics at prestigious universities, define restructuring as the changes that a state-owned-enterprise has to undergo in order to become an equivalent private sector firm.[97] Expanding on this definition they list several changes in internal organization that restructuring typically entails.

1. The separation of core from non-core activities
2. The closure of unviable units
3. Labor shedding
4. Reform of incentive structure for employees and managers
5. Modernization of equipment[98]

These activities, though costly in the short-run, can offer large gains in the long-run and are necessary for a successful transformation to a market economy and sustained growth over time.[99] In the transition context, however, few of these important steps were achieved due to financial constraints and other factors which will be discussed below in the stories. Hungary and Slovakia both privatized the majority of their firms, which was the first step towards a successful transformation, but this is not sufficient and as Blanchard, Carlin, and Aghion point out, the process of privatization itself which focuses on the change in ownership does not at all encompass the tasks necessary for restructuring. With this information, we now look at how the process of restructuring

[97] Phillipe Aghion, Olivier Blanchard, and Wendy Carlin. *The Economics of Enterprise Restructuring in Central and Eastern Europe*. Working paper no. 1058. (London: Centre for Economic Policy Research, 1994. Industrial Organization.) 2.
[98] Ibid.
[99] Landesmann and Szekely 3.

elapsed in both Hungary and Slovakia in respect to DAM and VSZ, highlighting the two decisions of Beblavy's framework that concern restructuring as we go: whether the government's chose to intervene in the firm's affairs, and whether the state and/or banks partially owned by the state provided a loose fiscal environment for restructuring to elapse within.

Restructuring in Hungary

Looking first at Hungary, after the failure of the initial privatization to Kliscna, in 1994 the Hungarian state re-nationalized the firm and paid 5 billion HUF to continue operating the factory and finish uncompleted developments.[100] Quite a robust intervention, this was the first time the Hungarian government did this for DAM, but it would not be the last. Later in 1994, just before the general election, the government decided to re-organize the entire Borsod Region. The government passed 3 resolutions towards this goal, appropriating a total of 34.8 billion HUF in subsidies for this purpose.[101] These resources allocated through the three resolutions however were not great enough to create the necessary changes to the steel industry in Borsod. Istvan Bakos, a professor at the University of Miskolc and author of a paper on the decline of steel in the Borsod region writes, "A substantially larger capital would have been needed to make the technologies in the two factories competitive and for their products to reach the requirements set by the ISO 9002 standard."[102] General restructuring activities like the five listed in the section introduction, he adds, were not emphasized in the resolutions and only 20% of the funds were spent on these tasks of real restructuring like

[100] Bakos 3.
[101] See: Resolutions 2014/1994. II.16., Government resolution on the re-organisation of the steel industry in Borsod, , 2110/1994 X.27, On guaranteeing continuous operation of the steel industry in Borsod and 2156/1994 XII 24 On continuing the reorganization of the steel industry in Borsod
[102] Bakos 4

streamlining the product range, development of products representing higher added value, and technological modernization.[103] The latter 80% of the resources were spent on maintaining operationability, on buying out the assets, making redundancy payments, financing the losses and the inventory, and on credit guarantees on working capital. In other words he writes, from 1992 to 1997, 80% of the state subsidies were used for "creating clear ownership conditions," rather than the necessary tasks that would help the firms succeed in the long-run[104] Therefore, though the idea was that the government would work through the State Privatization Agency to keep the company going, improve it, and try to find a "real" buyer for the company, the restructuring was not extensive enough to accomplish these goals. It was merely, Bakos says, "symptomatic treatment," or "crisis management," which is another term to describe this approach to industrial policy advanced by economic scholar Ádám Torok.[105]

This crisis management approach had negative consequences for the region, and DAM. For instance, in the transition period firms had to enter new markets, the Western markets, where products were often times more developed than those in the East which had not been subject to market pressures. In order to compete in these more developed markets both in exports and imports, restructuring was crucial. As Landesmann writes, "an important by-product of developing capabilities to produce commodities which can be exported is that it simultaneously generates capacities which can compete with imported goods."[106] This initial failure to restructure sufficiently to even sufficiently

[103] Bakos 17.
[104] Bakos 3
[105] Bakos 17, Ádám Török, "Industrial Policy in the New Member Countries of the European Union: A Survey of Patterns and Initiatives Since 1990," *Journal of Industry, Competition, and Trade* 7 (2007), [Accessed from Feb. 14, 2011 from Springer Science database].
[106] Landesmann and Szekely 328.

enough to meet ISO 9002 standards, an international quality standard, was therefore shortsighted.

It seems from observations in this period of time that Hungarian decision-makers were torn on industrial policy and this can at least partially explain these initial failures. Torok writes that after a number of firm closures in the beginning of the transition, the Hungarian government decided it "could not remain a passive observer of the collapse of a string of manufacturing firms which were important in exports and employments."[107] These closures may have been perceived as especially problematic in Hungary because according to Torok, it is a nation that tries to maintain regional equity, and considers employment more of an issue for the social rather than economic realm.[108] These values, however, combined poorly with another Hungarian belief in the 1990s which was that entire sectors were either modern or old. Without looking into the individual health of firms, the steel industry was deemed an "old" industry by the government and therefore only received enough attention to maintain employment levels and be consistent with its social goals. Thus, the "symptomatic," "crisis management" type of interventions in this early 1990s time period seem to be the Hungarian attempt at a mid-ground.

Looking back at DAM we can see this clash of beliefs in action. After the 1994 restructuring, the Hungarian privatization strategy turned outwards in 1995 after international pressure to re-open the country for foreign investment.[109] However, for basically four years while the restructuring was taking place, very little happened at DAM. As a former major player in the Hungarian government's privatization program in the early 1990s remarks of this time, "Companies were restructured, renamed, and fresh

[107] Torok 256.
[108] Ádám Török, interviewed by author, Budapest, Hungary, May 2011.
[109] Hanley 153.

money was pumped into them and all the time nothing happened." Finally, in 1997, VSZ of Slovakia won a second tender for DAM. The deal was made with VSZ buying 71% of the firm shares from the Hungarian state for a symbolic $1, with the remaining 29% in the hands of Hungarian state banks and other actors.[110] Also, VSZ promised to raise the company's capital by 4.5 billion forinths, a sum that was to be matched by the Hungarian State Privatization Agency.[111] Moreover, VSZ agreed to pick up 6 billion HUF of DAM's debt and maintain employment at 70%.[112]

VSZ quickly began an ambitious 3-year plan called "The Rolling Mill Modernisation Program" which was to double the amount of quality rolled steel produced at DAM.[113] This level of investment was typical of foreign investors, and Blanchard even writes that such "an intimate connection between privatization and restructuring is apparent only in the case of foreign direct investment."[114] However, the modernization program which was projected to be a success had it continued was ended in the 2nd summer of implementation, and other investment by VSZ halted.[115] It turned out that the Slovakian firm did not have the money to continue investment, and the extensive domestic problems of VSZ, soon to be discussed below, rendered the firm unable to deal with the problems at DAM.[116] After a long and drawn out legal process where the Hungarians asked that VSZ fulfill their end of the initial deal financially, the court ruled in Hungary's favor and VSZ offered 140 million HUF but ended up not paying.[117] Due to

[110] "Turnovers Improved Due to Bond Trading," *The Slovak Spectator*, 18 Dec, 1997, [Accessed 20 Feb, 2011, from http://spectator.sme.sk/articles/view/7625/3/].
[111] Ibid.
[112] Ibid.
[113] Interview Material. Kosice, Slovakia. May 2011.
[114] Aghion et al. Introduction.
[115] Interview Material. Kosice, Slovakia. May 2011.
[116] Peter Mihalyi, interviewed by author.
[117] Peter Mihalyi, interviewed by author

these complications, DAM's chance at an initial restructuring from a foreign investor was destroyed, an unfortunate occurrence when in nearly all other cases foreign ownership is strongly associated with a major investment program.[118] While this court case dragged on until 2003, more buyers came to DAM in 2001. The Italian company Corne Accial, buyers of steel, bought the firm in 2001 and downsized so that there were only 1,650 employees working there in 2003. Production stopped at the plant in January 2003, and went into liquidation that March. In April of the same year it was reported that DAM could be started up again with an injection from the Hungarian government of 2 billion HUF, and a month later DAM began operating under a group called Borsod Steel Manufacturing.[119] Finally, from 2004 until 2006 the Ukrainian Donbass Group operated the firm.

The actions during this third and fourth privatization reflect a less interventionist approach than in the beginning; 2 billion HUF being much less than was initially allocated for restructuring in 1994, but we see the Hungarian government becoming involved in different ways. For instance, in order to allow for some restructuring we see the Hungarian government paying 160 workers from the state employment fund which had been fired but remained temporarily on the firm payroll during this period.[120] According to Blanchard, "a state which is unable to determine the pace of restructuring directly may nevertheless be able to influence it indirectly through its ability to pay compensation to the losers," and is a sign that the state is practicing an industrial policy that is encouraging structural change which is positive while trying to manage social

[118] Aghion et al. 3
[119] "Diosgyor Steel Plant Could Restart with Injection of HUF 2bn," *Europe Intelligence Wire*, 11 Apr. 2003, [Accessed Feb. 20, 2011, from http://www.accessmylibrary.com/coms2/summary_0286-22990101_ITM].
[120] Peter Mihalyi. Encyclopedia of Privatisation.

costs. By paying the wages, the government makes restructuring easier because it eases the usual opposition to layoffs that managers face.[121] We can see this move as a finale in an evolution of Hungary's industrial policy from the very liberal in the beginning, to a more interventionist strategy of "symptomatic treatment" or "crisis management", and finally to a less interventionist though still involved approach embodied in the wage payment bargain. In the end, however, what is crucial to see is that by 2006 when the Ukrainian company Donbass acquired DAM it was too late to save the company using these more sophisticated approaches.

Restructuring in Slovakia

"The restructuring of Slovak companies will be determined by the method of privatization and by the strong mingling of political with economic powers."122 This characterization by Anton Marcincin, a former researcher at the Slovak Foreign Policy Association and now country economist for Slovakia at the World Bank , is particularly accurate. Though the success of firms in Slovakia in the 1990s like VSZ under Rezes were attributed in many studies to successful restructuring procedures, Marcincin writes that "the good results of large Slovak companies reflected more of their successes in rent seeking activities, their monopoly position on the domestic market, and the ability to get rid of excessive labor without a profound restructuring."[123] At the end of the Meciar period, VSZ had defaulted on its loan from Merrill Lynch and the new government under Prime Minister Mikuláš Dzurinda , viewing it as a strategic firm, had decided to step in.

[121] Aghion et al 4
[122] Anton Marcincin, "Enterprise Restructuring." *Economic Policy in Slovakia 1990-1999*. Ed. Miroslav Beblavy and Anton Marcincin. Bratislava: Center for Social and Media Analysis, Research Center for the Slovak Foreign Policy Association, and Institute for Economic and Social Reforms, Slovakia. INEKO, 2000, [Accessed on Feb.14, 2011, from www.ineko.sk/file_download/25/publications_economic_policy.pdf].321.
[123] Marcincin 331.

The new Dzurinde government, taking a clear stance on Bebelavy's Decision Point #3, chose a robust intervention, and immediately after the company's default the government began talks with the firm, and offered to rescue VSZ. But first there would have to be a change in management. Though undocumented, it is assumed that the state, primarily the Ministry of Finance, helped recruit Gabriel Eichler, an American international banker and former chief economist at Bank of America to serve as President for 6-months and arrange a restructuring agreement(s) with the approximately 40 banks VSZ was indebted to.[124] One of Eichler's first actions was to sell of VSZ's non-core businesses, an important task of restructuring, and then he turned to the banking problem. Due to cross-default clauses, VSZ was about $450 million in debt when Eichler arrived. Turning to the government he found an extremely supportive loose fiscal environment for restructuring and for finding a new buyer. Before a meeting between Eichler and the head of U.S. Steel, a potential buyer, the government tried hard to reach a standstill agreement with VSZ's creditors. U.S. Steel made obtaining a stand still agreement so that they would not have to pay off VSZ's old loans a priority, and the Slovak government responded. Finance Minister of the time Brigita Schmognerova was given power by the cabinet to sign an agreement preceding a stand still agreement between the government and VSZ's foreign creditors.[125]Jan Marusinec, a former advisor to the state secretary at the Minister of Finance, sums up the government's attitude in these discussions well, stating that the government basically said, "We can prolong, but you have to privatize the company… and it was done."[126] Through these moves the Slovak state tried to assure U.S. Steel that the state, the biggest creditor of VSZ, would not try to recover their debts quickly and

[124] Kopanic Jr. 3.
[125] Kopanic Jr. 4.
[126] Marusinec, interviewed by author.

therefore U.S. Steel's investment could go towards capital improvements. A successful strategy, they ended up making what was widely perceived as a popular deal with U.S. Steel.[127] U.S. Steel would have to pay $60 million for the firm, pay $325 million in debt to VSZ's lenders, reimburse VSZ for $15 million in past taxes, and maintain employment levels at 17,000 for several years.[128] Moreover, the Slovak government was intent on the point that U.S. Steel would not be the last firm to invest in the Košice region and requested as part of the deal that U.S. Steel create an Economic Development Center to function for 7 years. In return, the Slovak government granted U.S. Steel a ten-year tax holiday that added up to approximately $700 million in savings, a classic tool of industrial policy used to support firms.[129] U.S. Steel promised to re-invest these savings into upgrading the company.[130] This tax break lasted until 2009 as was planned, however not without controversy. Upon accession to the EU in 2004, Slovakia had to agree to cap its output if it wanted to maintain its state aid to U.S. Steel through this large tax-holiday.[131] Its failure to cap its output at only 3% growth for the 2001 and 2002 years, led to consequences which will be discussed in the last chapter on industrial policy and the EU.[132]

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[127] "U. S. Steel's Purchase of Slovakian Steel Company Is Approved Overwhelmingly by VSZ Shareholders." *PR Newswire*. 12 Oct, 2000, [Accessed on Feb. 21, 2011, from http://www2.prnewswire .com/cgi-bin/stories.pl?ACCT=104&STORY=/www/story/12-06-2000/0001381163&EDATE].
[128] Ibid
[129] Ibid.
[130] "Slovakia Company: US Steel Turns around VSZ." *Economist Intelligence Unit- Viewswire*. The Economist, 12 Feb. 2001. Web. 18 Feb. 2011. <http://www.eiu.com/index.asp?layout=VW ArticleVW3&article_id=554817055&region_id=450000445&country_id=940000294&channel_id=180004 018&category_id=280004028&refm=vwCat&page_title=Article&rf=0>., "EC: We'll Cut a Deal on Steel Subsidies." *The Slovak Spectator*. 11 Oct. 2002. [Accessed Feb. 20, 2011, from http://spectator.sme.sk/articles/view/10690/10/].
[131] European Union, European Commission, *State Aid SK 5/2004- Slovakia, Reduction of a Tax Concession Granted by Slovakia to U,S, Steel Kosice*, [Accessed Feb. 18, 2011 from http://ec,europa,eu/eu_law/state_aids/comp-2004/sk005-04,pdf].
[132] "Slovakia: Manufacturing." *Viewswire*. Economist Intelligence Unit, 30 May 2006. [Accessed Feb. 20, 2011, from www.eiu.com]. p. 1, Anca Dragu,. "A Row over Subsidies to a Steel Maker Sours Slovakia's

The restructuring of VSZ and consequent luring of U.S. Steel to Košice could be seen as a great example of a successful industrial policy. It is interesting to note however, that this was not the usual behavior of the Slovak government. As a former high ranking leader at VSZ and now owner of a smaller steel production firm stated, "To receive aid companies had to clearly define that they did not have any debts against social insurance or tax debt."[133] Miroslav Beblavy also mentions the unique nature of this intervention, noting that U.S. Steel was especially important for the Slovak government to save given its role as the "hub of the regional economy," and, moreover, that the Slovak government realized that the "underlying assets of the steelwork; namely people and technology, were sound," it was just a poorly managed enterprise.[134] Therefore, even if the level of intervention was extraordinary, it shows how Slovakia chose a winner, utilized a loose loan policy to its advantage, and responded effectively to a firm it deemed strategic.

Relations with the EU." *Insight Central Europe*. 23 Jan. 2004. [Accessed Feb. 20, 2011, from http://incentraleurope.radio.cz/ice/article/49810].

[133] Interview Material. Kosice, Slovakia. May 2011.

[134] Miroslav Beblavy. Interview. Bratislava, Slovaakia. May 2011.

Chapter II: Synthesis: A Comparative Assessment of Hungary and Slovakia's Initial Conditions and Industrial Policy Decisions

Now that the stories of DAM and VSZ from early development to their varying levels of restructuring have been discussed, there are four key findings which should be stressed that can be drawn from a comparative analysis of the industrial policy decisions pursued in each country and their impacts on the two firms.

The first finding is that choices made under socialism, as well as geographic and political realities of Hungary and Slovakia, undeniably played a role in the performance of the two firms in the transition and post-transition stage. In other words, each firm's performance can to some extent be described as path dependent as clearly initial conditions played a role in the long-term performance of the two firms. Despite what might be construed as a benefit, the long history of steel production at DAM served as impediment in the long-run. With existing capacities present at the site from its development in the 1800s, Diósgyőr did not receive the same level of investment from the Soviet Union that VSZ did in Košice, putting DAM at a technological disadvantage. Failure to modernize in this initial stage before the collapse of communism had long-term consequences in terms of finding strong buyers in the privatization stage, and competing in the increasingly global economy through the 1990s and 2000s. Moreover, the socialist choice in Hungary to build-up numerous steel mills rather than centralize attention at one also had a great impact in the long-run.

VSZ also had a geographic advantage due to its proximity to Ukraine and Russia, the source of iron ore for both firms at this point in time, and the presence of the

appropriate-gauged railway tracks to travel back and forth from the Soviet Union into Košice. The product line at Košice, less specialized and cheaper to produce and transport that at DAM, also certainly played a role in its long-term competitiveness.

On the other hand however, large similarities existed between the firms. As was stated earlier, at the end of communism both mills had large, able labor forces of approximately 18,000 people and well-trained engineers due to the traditions of the technical universities in the area. Moreover, though the technology at the firms was not equal, both had received investment under communism and neither was by any means obsolete at the time of the fall. Furthermore, both operated under similar competitive conditions in their sector and despite small variations such as the different transport costs of long-products over flat-products; they were ultimately subject to the same recurrent ups and downs in the steel industry. Yet only one firm, VSZ, ultimately weathered the storm. These similarities, together with the fact that the firm's performances did not diverge for several years after 1989, lead me to argue that though their differences certainly did play a role in their varying levels of success, other factors must have been at play as well; namely the industrial policy choices made in the early years of the market economy.

The second finding gleaned from these comparisons is that the choices made by the state in the privatization stage were the ones with the greatest influence on firm outcome. Looking at our framework we see that both the governments of Hungary and Slovakia made the same decision at Decision point #1: they privatized the majority of state firms. At Decision point #2 however, when it was time to choose a method of privatization and a buyer; their different actions had profound consequences for VSZ and

DAM. Hungary, with an immense national debt level at the end of communism had no choice but to privatize -and quickly in order to raise profits to pay down the debt. The decision to privatize was decisive and immediate. Hungary's choice to atomize firms in order to propel forward a quick privatization process however weakened the state assets for sale and made it more difficult to find a strong buyer. The atomization process also created firms so small no one in the government could see what was happening within and between them. This inability to see how managers were manipulating individual firms, together with the administration's emphasis on the speed of privatization did not allow for appropriate investigation into buyer promises. At VSZ, however, despite a similar process of early atomization, Slovakia's emphasis on strengthening the buyer's position through preferential pricing helped Slovak citizens purchase majority shares in entire production circles, meaning the entire metallurgical circle at VSZ was owned by a group with common interests - an attribute that made it much more attractive to foreign investors like U.S. Steel later in time. Preferential pricing in the Slovakian case also had its dangers though as Meciar's friends benefited immensely, took on an air of invincibility, and made non-strategic investments that ran VSZ into the ground. This shows that the choice to privatize to friends risks a degree of moral hazard, and emphasizes the point that there are a number of stumbling blocks to a successful domestic privatization strategy in the transitional context.

The third finding from the comparison is that "symptomatic treatment," a symptom of failing to choose a clear policy, was a negative feature of Hungarian industrial policy, and should be avoided in states facing industrial decline. In Beblavy's framework; two decisions had to be made in what I have called the restructuring stage.

First, would the state practice robust interventions, or let the market decide, and second, would companies be restructured in a loose fiscal environment complete with soft budget constraints, or would a tight fiscal environment where no firms receive preferential treatment? What we find is that both countries chose to intervene, but in different amounts, and at different points in time. In Hungary, failure to restructure sufficiently in 1994 led to a string of incidents where the weak seller position of the Hungarian government was only able to attract weak buyers. Moreover, every time money was pumped into the firm, it did not go into the areas suggested by Blanchard, but rather, truly defined by crisis management strategies, almost the entire amount of aid provided from 1992 to 2004 was used to compensate firms for losses, settle debts, current financing, and re-nationalization.[135] Since little money could therefore ever be used for upgrades, new technology, or other plant modernizations, privatizations of DAM always took place when the company was close to liquidation. This made it difficult to find serious investors for the second and third privatizations.[136]Hungary should have made a decision to either close one or two of its steel production facilities so they could focus their finances on one, or spend more money on restructuring all of them. Not making either of these choices, the state should have created a climate where DAM did not have to spend 80% of their restructuring aid on non-crucial restructuring tasks. This could have been accomplished by providing a looser budget environment as was done for VSZ in the process of privatizing to U.S. Steel. Though Hungary's eventual decision in the 2000s to stop providing aid to the failing Borsod region may be seen as a successful example of "letting the losers go," an action advocated by Rodrik - in reality, this decision came too

[135] Bakos 13.
[136] Bakos 15.

late, and after a weak stance on industrial policy led them to a point where there was no other option.

The fourth finding that can be drawn from this comparison is that classic liberal economic theory seems to have led to some counterintuitive results in the transition economies at the firm level, pointing at an increasing inability in these economies to formulate or be included under broad sweeping sector-specific industrial policy. It seems the markets in the transition context truly lacked the capacity to determine which firms were technologically and productively sound and just poorly managed, and which ones were not. In this environment both countries seemed to combine liberal and developmental strategies, with two key differences that led to very different results. In Slovakia, leaders were more hesitant and under less pressure than in Hungary to privatize which led to a very slow privatization process not in line with classic liberal theory. In Hungary, on the other hand, privatization was very quick. In the restructuring vein however, the two countries' mixed strategies seemed to show. Slovakia in this stage acquired a more liberal view and let many firms die, restructuring only the strongest, a strategy that caused many social conflicts in the short-run, but seemed to work for them in the long-run. In Hungary on the other hand, despite their rapid privatization when it came to their industrial policy towards restructuring it was interventionist, but hesitant. It would have been better for Hungary to close some of the less efficient firms early in the process and then focus larger interventions into the others. This key difference seems to point to the fact that liberal ideology only works so far in the transition economies, and in actuality a slower privatization process can allow time for initial restructuring and the finding a proper buyer. This allows the state to adopt a stronger position as a seller which

in turn helps the individual firms because strong sellers are more likely to find strong buyers. Allowing for a slower privatization process also means states can better avoid falling into using atomization as a tool for quicker selling to less able buyers.

One final finding that can be attributed to a comparison of these case studies is that placing a line like Hungary did at the end of communism between old and new industries is an ineffective way to decide where to intervene and where not. Ádám Torok, a scholar of Hungarian industrial policy at the Hungarian Academy of Sciences states that rather than follow the Davignon Plan that advocated partly closing, partly modernizing specific enterprises within sectors, Hungary followed a plan similar to that of Margaret Thatcher in England. Either a firm was part of an old industry, or a new industry; without distinctions being drawn between the varying levels of efficiency within sectors.[137] Steel was deemed part of the old industry, and therefore government support was minimal and led to sub-optimal performance. It is clear from the success of U.S. Steel in Košice that steel should not have been written-off as an old industry. In fact, a high-level manager at VSZ who worked with DAM extensively during VSZ's brief ownership was confident that with a little more investment, DAM would have become a highly successful firm, and long-term complement to VSZ.[138] Governments should therefore try to judge the health of industries at the individual firm level rather than sector-level. A paper discussed in the next section written by the EU Commission seems to come closest to this goal, and provides relevant helpful information to be discussed.

[137] Interview Material. Budapest, Hungary. May 2011.
[138] Interview Material. Kosice, Slovakia. May 2011.

Chapter III: Industrial Policy Going Forward: The Transition Economies and the European Union

Why have we studied the choices made in Hungary and Slovakia in this paper? After all, the choices have already been made. Is there anything prescriptive that can come from these definitions or is it purely historically interesting? I argue that the lessons learned through these case studies are relevant because questions over government intervention through industrial policy are still being asked, however at a different level. In Hungary and Slovakia they are now primarily being asked at the level of the EU. In this context where the rulings of one body are impacting the relationships between many countries and their economies - it is of the utmost importance to learn from mistakes in the past; an activity our case studies have helped us achieve. Moreover, the case studies have provided evidence of the nuanced outcomes of various interventions. An overview of nuanced and counter-intuitive outcomes at the firm level is therefore an exercise that helps with the complex task of forming an opinion on industrial policy at the EU-level.

1.1. The EU and Industrial Policy

The transition economies of Slovakia and Hungary joined the EU in 2004, an accession that brought for them many perceived benefits, but also some challenges as they sought to align their industrial policies with those of the European Community. As new members of the EU, they now had to ascribe to EU Competition Policy meaning state interventions in the economy would be monitored by an outside force, especially in interventions involving the granting of state aid. The objectives of the EU include an "accelerated the raising of living standards and a continuous and balanced expansion of

economic activity to be achieved through the establishment of the common market, unimpeded by national boundaries."[139] Certainly all these goals sound appealing to countries in the post-communist context. However, in order to achieve this objective and 'level the playing field' across Europe, the framers of the E.C. Treaty realized they would need to prevent certain countries from gaining an advantage over others through specific policies that would make their country a more attractive place to invest and produce. If everyone was allowed to practice traditional industrial policy such as subsidization, without regulation it would be a race to the bottom with each state trying to create a lower cost environment for investment then their neighbor. This would lead to an inefficient production process because so many funds would go towards luring investment. Thereby, the framers included a number of articles in the European Community Treaty to prevent this, including some directly relevant to our study - namely, Articles 92-94 of the European Community treaty which contain rules governing the granting of state aid. These articles aim to keep the financial advantages of locating in one state or another as homogeneous as possible and in theory, prevent the inefficiencies discussed above.[140] Nevertheless there are some exceptions allowed under the treaty. Acknowledging that state aid can correct market failures, promote the goals of social and regional cohesion, cultural diversity, and sustainable development, the levels of state aid allowed in an area of a country do vary to some extent according to regional socioeconomic statistics.[141]

[139] Simon Bishop and Mike Walker, *The Economics of EC Competition Law: Concepts, Application, and Measurement*, (London: Sweet & Maxwell, 1999).
[140] Bishop and Walker.
[141] *Should Aid Be Granted to Firms in Difficulty? A Study on Counterfactual Scenarios to Restructuring State Aid*, Rep, European Commission, 22 Dec, 2009, [Accessed May 3, 2011, from http://ec.europa.eu/competition/state_aid/studies_eports/restructuring_aid_study,pdf].

Despite this ideology at the EU-level however, individual states often see things differently and would argue that EU competition policy is not in their best interest. There are a number of instances across the region where states intervene in their economies in ways that violate EU Competition Policy and there has been a rise in state interventions since 2008.[142] For the purposes of this paper however, we will just look at one instance where state industrial policy and EU Competition Policy collided in Slovakia to illustrate what impact these policies may have had on firm performance in the 2000s as the transition countries prepared for and then experienced accession, and what role it will continue to play in the future.

1.2. Case Study: U.S. Steel and the EU

Bracing for the impact of the EU accession on industry, states and the EU began negotiating early on in the accession process as to what degree they would bring their industrial policy, primarily the state aid to industry component, in line with EU Competition Policy standards. The cases of DAM in Hungary, and VSZ in Slovakia were no different. In October of 2002, the European Commission came to a deal with the Czech, Slovak, and Hungarian governments on the state aid that the three countries were providing to domestic steel firms at that time which was currently in conflict with EU policy.[143] Steel production, as well as the shipbuilding and the automobile industry, are considered "sensitive" branches of industry, and fall under stricter EU rules for state aid then other branches.[144] These strict rules forbid direct state aid to these sectors, and in

[142] Ibid
[143] "EC: We'll cut a deal …" 2.
[144] "U.S. Steel Gets Most State Aid," *The Slovak Spectator*, 13 Oct, 2003, [Accessed Feb. 2, 2011, from http://spectator,sme,sk/articles/view/13994/10/].

2002 it became clear that the 10-year tax holiday granted to U.S. Steel would be a problem under the EU Competition Policy. The President of U.S. Steel Košice at that time, John Goodish, argued however that steel firms in Central and Eastern Europe are only now receiving the kind of aid that Western European steel mills experienced in earlier times. This argument has merit, and is one of the reasons EU Competition Policy in Central and Eastern Europe is controversial.[145] Nevertheless, it was agreed in the accession treaty between Slovakia and the EU that the Slovak government could continue to provide the tax break, but could only increase annual production by 3% from 2001 output levels of 4.05m tonnes.[146] Moreover, they would have to stop extending their range of products, make sure the total aid granted to the beneficiary did not exceed $500 million, and continue to meet the employment levels demanded in the contract.[147] However, in 2002 and 2003, the two years after the agreement, U.S. Steel raised production first to 4.4m tonnes, and next to 4.7 tonnes. In 2004 the European Commission recognized this breach of the production cap formally in an EU Commission document, and as punishment for the breach, the Slovak government had to decrease the total amount of state aid that could be granted to U.S. Steel from $500 million to $430 million. Furthermore, U.S. Steel Košice was required to pay a tax payment of $32 million to the Slovak government.[148] In interviews with both a former employee of the Ministry of Finance, as well as a former higher-level employee of U.S. Steel, it was conveyed that these conflicts hurt the Slovak economy; with one interviewee claiming Slovakia was too

[145]" EC: We'll cut a deal.." 2
[146] "Slovakia: Manufacturing," *Viewswire*, Economist Intelligence Unit, 30 May 2006, [Accessed on Feb, 20, 2011 www,eiu,com].
[147] European Union, European Commission, *State Aid SK 5/2004- Slovakia, Reduction of a Tax Concession Granted by Slovakia to U,S, Steel Kosice*, [Accessed Feb. 18, 2011 from http://ec,europa,eu/eu_law/state_aids/comp-2004/sk005-04,pdf].
[148] Ibid.

compromising with EU negotiators due to their desire to enter the union, and another claiming that entering the EU and now using the Euro is perceived to have hurt Slovak industry.[149] Summing it up well, Hanley et al state, "Observance of these (EU) standards has ruled out recourse to policies on which states have historically relied to promote domestic developments."[150]

1.3. Relevance for Moving Forward

It seems from this case that the EU can have an immense impact on an individual firm's performance by limiting state aid. However, its impact is difficult to prove because constructing counterfactuals is a challenging task. However, since states generally argue in line with the positive views of industrial policy mentioned in the introduction, and the European Commission positions itself largely as opposed to state aid to industry- it becomes an increasingly relevant task. No longer can we just analyze the state's decisions in the four areas outlined by Beblavy to determine how industrial policy decisions are impacting firms because now, and since the accession process began in the early 2000s, the EU has played a role in either pressuring governments to adopt certain policies and/or approving policies. Therefore, the debate over industrial policy in the transition economies has taken on a whole new relevance as discussions over the appropriate level of EU integration have flared on, and it is discussed whether or not industrial policy should be a competence of the EU given the varying levels of socioeconomic inclusion in its member states.

[149] Interview Material. Kosice, Slovakia. May 2011.
[150] Hanley 149.

Given these debates, the European Commission chartered an extensive report in 2009 entitled *Should aid be given to firms in difficulty? A study on counterfactual scenarios to restructuring state aid* that examined what might happen to a firm seeking restructuring aid in the absence of such aid.[151] Acknowledging both sides of the debate, that "on the one hand state aid can remedy market failures and reduce inequalities," but "on the other hand it also brings costs through the related taxes and potential distortions of competition," the report seeks to provide concrete evidence that aid saves "a considerable amount of jobs and activities that would otherwise disappear;" an argument often made by states seeking to maintain their aid to industry.[152] An impressively comprehensive report, the EU defines restructuring aid as aid that is "based on a feasible, coherent and far-reaching plan to restore a firm's long-term viability," and the report discovers whether firms in difficulty survive or do not survive in the absence of such aid. Though their conclusions are vast, one of the key findings to note as relevant is summed up as one of the report's conclusions well: "The empirical evidence provides insights about what happens to firms in distress without any state intervention, but it does not show whether restructuring aid would have a net positive affect."[153] Finding empirical evidence through the development of counterfactuals would be a step in the right direction for the EU Commission if these conflicts continue and they desire to keep the regulation of individual state industrial policies in their area of competency.

[151] Should Aid Be Granted to Firms in Difficulty?
[152] Should Aid Be Granted to Firms in Difficulty?
[153] Ibid

Conclusion

To close this investigation of the role of industrial policy in the success and/or failure of firms in the transition states of Slovakia and Hungary, there are four key findings which should be stressed.

The first finding is that decisions made under socialism, as well as the geographic and political realities of the two countries, undeniably played a role in the performance of the two firms in the transition and post-transition stage. In other words, each firm's performance can to some extent be described as path dependent.

The second finding is that the industrial policies which most impact firm outcome are those that are chosen at the privatization stage. The government's ability to manipulate property rights, meaning their ability to choose a method of privatization and a buyer, had profound consequences for DAM and VSZ and played a key role in their success and/or failure. It is also notable in this stage that a slower privatization process like Slovakia's, though contrary to liberal economic thinking, led to better firm outcome.

The third finding is that despite the fact both countries practiced industrial policy; their overall strategies were different and led to somewhat counterintuitive results. In Slovakia, for instance, contrary to liberal economic theory, an active industrial policy complete with loose budget constraints played a large role in saving VSZ and luring the high-performing U.S. Steel to Košice. However, though the intervention was great in size, it was also strategic and based on market reasoning. Policymakers in Slovakia had reasons to believe the firm would be a success in the market economy. In Hungary on the other hand, 'symptomatic treatment' had left DAM in an uncompetitive position in the 2000s that would not justify such active maneuvers of industrial policy. These findings

regarding the success of this selective, yet at times active industrial policy supports tailored firm-specific industrial policy interventions rather than one-size-fits-all.

The fourth finding, expanding on the former, is that "symptomatic treatment" was a negative feature of Hungarian industrial policy. In the case of DAM, the failure to formulate a strategic plan for the modernization of the factory while keeping it afloat had dramatic consequences. Hungary should have been aware and responsive to the fact that only 20% of restructuring funding was going to the crucial restructuring tasks in order to make sure actual restructuring took place. Rather, symptomatic treatment was deployed, and was long-term in nature. In this situation of failure to restructure by the mid-2000s, a successful industrial policy might be one that halts this aid; even if it leads to firm failure.

The fifth and final finding, supported by all the others, is that it is truly difficult to make broad sweeping sectoral industrial policy. Governments must try to judge the health of industries at the individual firm level rather than sector-level and take into account the specific competitive characteristics of each firm in their economy. This finding has implications at many levels; particularly at the EU-level where EU Competition Policy is increasingly making rules regarding the exercise of industrial policy for their member states.

In sum, performing firm specific case studies has allowed for a comprehensive examination of the factors leading DAM and VSZ towards and away from successful development. This study has determined that initial characteristics of the firms did play a role in the final success or failure in the firms, but it is also indisputable from the findings that choices of industrial policy were also heavily involved in the firms' outcomes. This investigation has prescriptive implications for Slovakia, Hungary, other post-socialist

countries in Europe, and particularly the EU as they continue to formulate industrial policy to fit the specific circumstances of the transition economy. Non post-socialist nations facing the challenge of industrial decline may also benefit from this study as they consider using industrial policy, and the specific advice to look beyond the sector level to the firm-level in their decision-making.

Annex

Item 1.1 describes the 11 main lines of industrial policy as defined by Bianchi & Labory

1. Infant industry protection (barriers to import, investment subsidies, etc.);
2. Export promotion (subsidies, rewards to exporting firms, and so on);
3. Nationalisation (state-ownership in the manufacturing sector);
4. Support to large firms (promotion of mergers and acquisitions, public orders to increase the firms' market, etc.);
5. Support to SMEs (entrepreneurship, access to finance and to information, simplification of procedures to start a business, promotion of relationships with other firms and with institutions);
6. Orientation of firms' governance (promotion of the development of capital markets, support to relations between firms and banks);
7. FDI attraction (tax exemptions, subsidies to firms creating subsidiaries or plants in the country, etc.)
8. Scientific and technological research programmes (promotion of university research, R&D subsidies, R&D collaboration for basic research, relationships between firms and research centres, and so on);
9. High skills training (tertiary education level, especially in scientific and engineering fields);
10. Medium skills training (apprenticeship, secondary education level);
11. Strategic industry promotion (definition of the industries or technologies of the future, research programmes specific to these industries or activities)

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