Market structure and economic transition in the Baltic Republics

Structura pieţei şi tranziţia economică în Republicile Baltice

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Abstract

Each of the four countries analyzed in this study has gone through a transition period since the fall of the Soviet Union in the early 1990's. Each has tried different strategies to change their economies and each has different results. The purpose of this paper is to explore and compare the market structure of the four countries 10 years the after transition started. The data for the study comes from the Business Environment and Economic Performance study (BEEPS) 2002 sponsored by the World Bank. While the BEEPS data does not allow us to analyze the effectiveness of the different strategies employed, the data does allow us to compare 2002 market structures and thus the results of the transition.

Keywords: *market structure, economic transition, Baltic Republics, BEEPS study*

Rezumat

Fiecare din cele patru ţări analizate în acest studiu a trecut printr-o perioadă de tranziţie de la căderea Uniunii Sovietice la începutul lui 1990. Fiecare a încercat diverse strategii pentru a schimba economiile lor şi fiecare are rezultate diferite. Scopul acestei lucrari este de a explora si compara structura pietei din cele patru tări de după 10 ani de tranziţie a început. Datele pentru studiu provin din studiul Mediul de Afaceri si Performanţa Economică (BEEPS) 2002 sponsorizat de Banca Mondiala. În timp ce BEEPS date nu ne permit de a analiza eficienţa diferitelor strategii folosite, datele ne permit să comparăm structurile de piaţă din 2002 şi, astfel, rezultatele tranzitiei.

Cuvinte-cheie: *structura pieţei, tranziţia economică, Republicile Baltice, studiul BEEPS 2002*

JEL Classification: D40, P30, R10

Market structure similarities and differences in Baltic Countries

The purpose of this paper is to explore market structure similarities and differences in four Baltic countries – Estonia, Latvia, Lithuania, and Poland. From a very similar starting point when the Soviet Union fell in 1990 to today these countries have pursued differing macroeconomic and political policies with different economic consequences. All four countries are recent entrants into the European Union (EU). As an example one of the differences is that Estonia has moved government interaction with citizens into the electronic age and voting is now done on the internet.

The current study was developed using a database created by the European Bank for Reconstruction and Development (EBRD) and the World Bank (WB). They developed a methodology for studying the performance of transition economies such as the new EU entrants. The Business Environment and Enterprise Performance Survey (BEEPS I 1999) was developed to capture a wide variety of data from firms in countries undergoing political and economic transition. Data was collected on numerous aspects of business performance including sources of financing, corruption and business relationships with government.

In 2002 the EBRD and WB developed a new version of the survey (BEEPS II 2002) which was administered to managers and business owners in 23 transition economies in Eastern Europe and in new states created by the break up of the former Soviet Union. While BEEPS II collected data on a wide range of issues, the focus of this paper is on business leaders' perceptions about "competition and concentration" and "characteristics of firms" in the four countries studied. Earlier research on the availability of working capital in the four countries demonstrated strong differences between the countries (Wheat, Swartz and Wadsworth, 2005; EBRD and WB, 2002).

Conceptual differences between market economies and planned economies

A market economy is characterized by the private ownership of the means of production where vast numbers of individual producers and consumers make independent decisions. The results of these fluid individual decisions determine the price, the quantity, and the quality of goods the economy will produce. In a planned economy the state owns the means of production and a group of government officials make decisions about the types and quantities of goods to be produced, and budgets control the quality of the goods. Planners issue production schedules to firms and assign productions quotas. Prices are also set by central planners.

In a market economy firms are profit driven; their continued operations are dependent upon total revenues exceeding total costs. Firms continuously scan the horizon for suppliers that perform better, faster, and cheaper. The firms are selective about the quantity and quality of labor they employ, and the size of a workforce a firm employs is determined by the sales of the firm. Unemployment can be a problem in a market economy. In planned economies central planners determine the resources the firm will use to produce the proscribed quantity of goods. Officials in the central government are responsible for

providing the raw materials the firm uses in production process. The government also determines the skill levels and the number of workers assigned to work at firms. Central planners distribute the workforce so there is no unemployment; everyone has a job whether the firm needs the labor or not. Firms in a market system are responsible for the marketing and sales of the products they produce. In a command economy the central planners are responsible for the distribution of the firm's goods.

In a market economy firms declare bankruptcy when their liabilities are greater than their assets. Assets are then sold to others who feel they can use the assets in a more productive way. Workers are dismissed and are unemployed until they can secure another job. The government has developed a number of programs that provide a social safety net from tax funds for those who become unemployed. In a command economy when the firm's liabilities exceed their assets the central government provides additional funding to the firm from tax revenues. The firm continues to produce, and workers do not experience unemployment.

Comparison of market economy and planned economy

Table 1

Characteristics	**Market Economy**	**Planned Economy**
Property	Private Ownership	State Owned—Except Labor
Prices	Market Determined	Central Planners
Production	Prices/Market Determined	Central Planners
Employment	Unemployment	No Unemployment
Legal System	Bankruptcy Uniform Commercial Code Independent Judiciary Rule of Law	No No Depend on Executive for Funds No
Banking	Deposit/Lending	Fold/Insolvent
Currency	Changes with World Markets	Closed System—Value may not relate to World Markets
Accounting System	Local or International Accounting Standards	Books Kept in Physical Units

In practice many institutions have developed in support of the market system. The Uniform Commercial Code and sanctity of contracts have made market transactions impersonal, less risky and more numerous. Firms rely on the rule of law to adjudicate differences and not on special treatment by friends. An independent judicial branch, one not dependent upon funds from the executive branch, helps ensure that cases are judged on facts, and the judiciary is not a puppet of the executive branch. These features which support a market economy are absent in the centrally planned economies.

Banks in a market economy are deposit/lending institutions and provide firms with access to capital to buy new equipment and expand the business. Firms in centrally planned economies rely on the central government to provide capital to replace old equipment and expand production. Firms in a market economy generally use a system of double entry accounting that in many cases adheres to international standards of acceptability. In part because there was no need to calculate profits in the former command economies books

were often kept in physical units rather than in the value of the items in a currency. These differences have obscured the ability of firms to understand the operations of one another. Because of these accounting differences firms in market economies considering investments in planned economies often cannot understand the financial situation of planned economy companies.

Operational challenges in moving from a planned economy toward a market economy

Firms in market economies are charged with creating value for stakeholders—making a profit—while operating in a socially responsible manner. Firms in centrally planned economy operate with a different set of challenges and were charged with the responsibility of providing housing, healthcare and education for employees, their families and for their retirees. In transition economies moving toward a market system firms must divest housing, healthcare and education responsibilities to private enterprise or to government. Firms are then taxed to pay for these social costs.

Firms in centrally planned economies were given advantages by planners over other producers within the Soviet/Eastern European block. During the transition trade barriers are dropped, and many firms find they are no longer competitive in world or internal markets. Former customers leave their centrally planned trading partners and purchase from Western firms or newly privatized local firms. Many firms once viable firms in the centrally planned system go out of business.

Firms in the transition economies must develop business practices that are common in the west. They have developed purchasing functions to source raw materials and selling/marketing functions to market the firm's goods. Trade patterns have radically changed as economies move away from a centrally planned economy and toward a market economy. Some governments and firms have taken the initiative and supported significant changes. In the early 1990's Poland made sweeping economic changes which created economic problems in the short run but generated positive long term benefits. Other governments and firms have moved toward a market system piecemeal. A market system will have trouble functioning without the ancillary supporting institutions. Transitioning one part of the economy toward a market system without making other changes will significantly inhibit or delay any benefits that might come from participating in a market economy.

Exhibit 1
Challenges in Moving from a Planned Economy to a Market Economy

Need to divest state owned enterprises of social responsibilities
- Healthcare for workers, their families, and retirees
- Education of workers' children
- Housing for workers, their families, and retirees
- Responsibility for retirees

State owned enterprises have
- Antiquated equipment
- Less than modern business practices
- No competition

State owned enterprises need to
- Antiquated equipment
- Convert accounting system

- Develop a sourcing function
- Develop a marketing function

Data Analysis

Estonia, Latvia, Lithuania, and Poland have each gone through a transition period since the fall of the Soviet Union. Each has used a different strategy to change their economy and each has different results. While the BEEPS data does not allow us to analyze the effectiveness of the different strategies employed, the data does allow us to compare 2002 market structures and thus the results of the transition.

Data from questions in BEEPS were analyzed using one-way analysis of variance. By examining the data from the four countries a picture of the market structure in each country emerges. While the four countries share geographic proximity to one another and have been accepted for entry into the European Union at the same, the market structure in the countries appears quite varied. Questions from the BEEPS study relating to competition, industry concentration, firm characteristics, and economic performance were used in the current study.

Results

Compared to the other three countries firms in Estonia are more likely to maintain relations with current suppliers even in the face of a price increase. Considering domestic sales firms in Lithuania have more of their domestic sales to government agencies than do firms in Estonia or Latvia. No statistical differences were found in firms in the four countries in their sales to multinationals, parent companies, or large domestic firms.

Concentration of inputs and sales

Table 2

Question		Sig.
If main material input price increased 10%, how would you respond	Estonia (2.7) < Poland (3.0) and Lithuania (3.0)[1]	.003
Percent of domestic sales to: Government or Government Agencies	Estonia (16.5%) and Latvia (20.9%) < Lithuania (35.7%)	.003
Percent of domestic sales to: Other	Lithuania (64.6%) and Estonia (65.0%) < Poland (73.5%) and Latvia (78.3%)	.000
Percent of sales in last 12 months to your three largest customers	Latvia (30.6%) < Estonia (38.1%) and Poland (38.7%) and Lithuania (41.3%)	.000
Percent of sales in last 12 months to customers you have had for at least three years?	Latvia (40.1%) and Lithuania (42.2%) and Poland (43.6%) < Estonia (51.9%)	.000
Percent of market share in domestic market for your major product line or service	Poland (12.2) < Lithuania (16.5) < Latvia (23.2) < Estonia (31.7)	.000

[1] *1 = Purchase same amount from suppliers, 2 = Purchase some materials from alternative supplies, 3 = Purchase most materials from alternative suppliers.*

Latvian firms have lower percentage of sales to their largest three customers than firms in the other three countries. Firms in Estonia have a greater percentage of sales to customers they have had for at least three years. Firms in Estonia perceive the domestic market share for their major product to be greater than do firms in the other three countries. Firms in Estonia have a lesser percentage of sales to government entities than do firms in Lithuania.

Polish firms were most concerned about competition from imports. Estonian firms are also more concerned about the competition from imports than were firms in Latvia and Lithuania. In comparing their production processes firms in Estonia judged their technology more advanced than did firms in Latvia.

Import competition and production process technology

Table 3

Question		Sig.
Importance of competition from imports in the market for your major product line or service in domestic market	Lithuania (2.2) and Latvia (2.2) < Estonia (2.6) < Poland (2.9)[2]	.000
Comparing your production processes with that of your closest competitor in your major product line or service	Latvia (.01) < Estonia (.22)[3]	.015

[2] *1 = Not at all important, 2 = Slightly important, 3 = Fairly important*

[3] *0 = My firm's technology is about the same as my competitors, 1 = My firm's technology is better than competitors.*

In developing new products, services or markets firms in Estonia and Poland are more concerned about pressure from domestic competitors than were firms in Lithuania and Latvia. On the same topic firms in Poland considered pressure from foreign competitors more important than did firms in Latvia and Estonia; firms in Lithuania were least concerned about pressure from foreign competition. Firms in Poland seemed more responsive to pressure from customers than did firms in Latvia and Estonia; firms in Lithuania were least responsive to pressures from customers. Pressure from creditors seemed to be more important to Polish firms than to Lithuanian firms. Firms in Poland and Estonia felt pressure from shareholders was more important than did firms in Latvia and Lithuanian. Firms in Latvia considered pressure from government in developing new products more important than did firms in Lithuania; firms in Estonia and Poland were least influenced by government on this issue.

Analysis of external pressures to reduce production costs reveal that Polish firms are more concerned about pressure from domestic competitors than were firms in Lithuania, Estonia or Latvia.

Important factors influencing new product, service, and market decisions[4]

Table 4

Question		Sig.
Pressure from domestic competitors	Lithuania (2.7) and Latvia (2.8) < Estonia (3.1) and Poland (3.2)	.000
Pressure from foreign competitors	Lithuania (1.9) < Latvia (2.1) and Estonia (2.1) < Poland (2.5)	.000
Pressure from customers	Lithuania (2.5) < Latvia (3.0) and Estonia (3.1) < Poland (3.5)	.000
Pressure from creditors	Lithuania (1.7) < Poland (2.0)	.006
Pressure from shareholders	Lithuania (1.7) and Latvia (1.8) < Poland (2.1) and Estonia (2.2)	.000
Pressure from government or government agencies	Poland (1.6) and Estonia (1.6) < Lithuania (2.0) < Latvia (2.3)	.000

[4] *1 = Not at all important, 2 = Slightly important, 3 = Fairly important*

On the same topic Polish firms were more attuned to pressure from foreign competitors than were firms in Latvia; Latvian firms are more sensitive to pressure from foreign competitors than were firms in Lithuania. Polish firms are more concerned about pressure from customers than were firms in Latvia and Estonia; Lithuanian firms considered pressure from customers was only slightly important. Firms in Poland are more concerned about pressure from creditors than were firms in Lithuania. Shareholder pressures are more important to firms in Poland and Estonia than they were to firms in Lithuania and Latvia. Firms in Latvia are more sensitive to government pressures than are firms in Lithuania; firms in Estonia and Poland are least influenced by government in reducing production costs.

Important factors influencing reducing production costs[5]

Table 5

Question		Sig.
Pressure from domestic competitors	Lithuania (2.7) and Estonia (2.7) and Latvia (2.9) < Poland (3.2)	.000
Pressure from foreign competitors	Lithuania (1.8) < Latvia (2.1) < Poland (2.4)	.000
Pressure from customers	Lithuania (2.6) < Latvia (2.9) and Estonia (2.9) < Poland (3.3)	.000
Pressure from creditors	Lithuania (1.6) < Poland (1.9)	.004
Pressure from shareholders	Lithuania (1.6) and Latvia (1.7) < Poland (2.1) and Estonia (2.2)	.000
Pressure from government or government agencies	Estonia (1.6) and Poland (1.6) < Lithuania (1.8) < Latvia (2.0)	.000

[5] *1 = Not at all important, 2 = Slightly important, 3 = Fairly important*

Firms in Poland were formed earlier than firms in Lithuania, Latvia and Estonia. The BEEPS study also queried firms about managers during the 1998-2002 time frame. Firms in Poland and Latvia were more likely to have had the same general manager during that time period; firms in Lithuania were more likely to have experienced a change in general managers. The ages of the general manager are younger in Estonia and Latvia than they are in Lithuania.

Firm orofile

Table 6

Questions		Sig.
Year firm began operations	Poland (1981) < Lithuania (1985) and Latvia (1987) and Estonia (1987)	.000
Has there been a change in the general manager since 1998?	Poland (.21) and Latvia (.23) < Lithuania (.34)	.002
Age of General Manager	Estonia (43.9) and Latvia (44.1) < Lithuania (46.5)	.007

In 1998/1999 period and in 2002 firms in Estonia had a greater number of permanent full-time employees than did firms in Lithuania, Latvia, or Poland.

Full-time employment

Table 7

Questions		Sig.
Number of permanent full-time employees in 2002	Lithuania (556) and Poland (563) and Latvia (588) < Estonia (661)	.001
Number of permanent full-time employees in 1998/1999	Poland (559) and Lithuania (561) and Latvia (582) < Estonia (693)	.000

In examining the composition of permanent full-time employees firms in Latvia had a greater percentage of managers than did firms in Estonia, Lithuania, or Poland. Within this same category firms in Estonia had a greater percentage of professionals than did firms in Poland. Polish firms have a greater percentage of skilled workers than did firms in Lithuania; firms in Latvia and Estonia had the least percentage of skilled workers. Firms in Estonia have a greater percentage of unskilled workers than do firms in the other three countries. Latvian firms have more support workers than did firms in Estonia; firms in Poland and Lithuania had a lesser percentage of support workers than did firms in the other two countries. Firms in Estonia had a greater percentage of expatriates than did firms in Poland, Lithuania, or Latvia.

Composition of full-time employees

Table 8

Questions		Sig.
Percent of permanent full-time employees that are: Managers	Estonia (13.1%) and Lithuania (15.2%) and Poland (17.0%) < Latvia (21.0%)	.001
Percent of permanent full-time employees that are: Professionals	Poland (14.7%) < Estonia (20.9%)	.004
Percent of permanent full-time employees that are: Skilled workers	Latvia (48.5%) and Estonia (49.4%) < Lithuania (57.1%) < Poland (64.0%)	.000
Percent of permanent full-time employees that are: Unskilled workers	Lithuania (14.6%) and Poland (18.0%) and Latvia (19.7%) < Estonia (25.5%)	.002
Percent of permanent full-time employees that are: Support workers	Poland (14.7%) and Lithuania (16.5%) < Estonia (23.4%) < Latvia (32.4%)	.000
Percent of permanent full-time employees that are: Expatriates	Poland (5.0%) and Lithuania (5.0%) and Latvia (5.2%) < Estonia (6.6%)	.000

In examining the foreign trade segment firms in Estonia are more likely to sell products outside the country than were firms in Latvia, Lithuania, or Poland.

Firm export issues[7]

Table 9

Questions		Sig.
Does your firm sell its products or services to customers outside the country?	(Latvia (.25) and Lithuania (.31) and Poland (.31) < Estonia (.43)	.005

[7] *0 = No, 1 = Yes*

Firms in Lithuania and Latvia are more likely to export indirectly through a distributor than are firms in Poland. Firms in Poland are more likely to source domestically than are firms in Estonia and Latvia. Latvian firms import more materials directly than Polish and Estonian firms. Latvian firms import more materials indirectly through distributors than Polish and Estonia firms.

Direct and indirect material inputs and supplies

Table 10

Questions		Sig.
What percent of your firm's sales are: Exported indirectly through a distributor	Poland (18.3%) < Latvia (44.0%) and Lithuania (48.1%)	.003
Percent of your firm's material inputs and supplies that are: Purchased from domestic sources	Estonia (62.8) and Latvia (63.0) < Poland (74.4)	.000
Percent of your firm's material inputs and supplies that are: Imported directly	Poland (39.4) < Lithuania (53.6) Poland (39.4) < Latvia (60.4) Estonia (45.7) < Latvia (60.4)	.001
Percent of your firm's material inputs and supplies that are: Imported indirectly through a distributor	Poland (31.4) < Estonia (45.8) and Lithuania (50.7) Poland (31.4) < Estonia (45.8) < Latvia (58.4)	.000

Conclusion

From Table 4 it appears that firms in Lithuanian and Latvia are influenced more by the government than are firms in Estonia and Poland. From Table 7 it appears Estonia has more expatriates in their work force. Estonian firms rely less on sales to governmental entities than do firms in the other countries. Firms in Estonia have a greater percentage of sales to customers they have had for at least three years and are likely to maintain relations with current suppliers even if the prices increase. Firms in Estonia perceive the domestic market share for their main product to be greater than do firms in the other countries. Estonian firms were more concerned about competition from imports and other domestic producers than were firms in the other countries. From this data a picture begins to emerge of each of the four countries. Within a country the picture appears not wholly consistent.

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