Investment Opportunities in the Baltic States

Survey prepared on behalf of the Icelandic Ministry of Commerce

1994
Abstract

In this study we examine the opportunities for foreign direct investment in the newly independent Baltic states - Estonia, Latvia and Lithuania. This is a rather complicated task because the statistical information is insufficient and both the economies and legislations of the countries are still in a process of transition. Our analysis must begin from scratch, as proper economic and financial indicators are in most cases non-existent. Just recently some international institutions have had the opportunity to conduct their initial research studies of the Baltic countries and shed some light on their general economic environment. However, the conclusions are preliminary and by no means complete.

It should be mentioned that the problem of methodology is unavoidable. All historical statistical data are organised within the framework of a Marxian political economy. A certain efforts is required to transform this information to be able to present it in an understandable manner to the prospective private investor. The objective of the study is to provide a reasonably complete synthesis of the "investment climate" in the Baltic states. Where it was possible we have attempted to fill some gaps and/or update existing information.

The author wishes to express his gratitude to Mr. Jón Sigurðsson, Mr. Björn Friðfinnsson and Prof. Guðmundur Magnússon for their essential help that made possible the realization of this project.
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Introduction

This survey deals with the opportunities for foreign direct investment in the newly independent Baltic states—Estonia, Latvia and Lithuania.

Despite the internationalization of capital markets there is evidence from recent economic studies\(^1\) of a substantial difference between the actual rate of return and the rate that could be achieved if the investment portfolio were efficient.\(*\) This difference is two percentage points less for the United States and 9 percentage points less for Germany. It proves that investors tend to prefer their own country and feel much more comfortable in areas well known to them. It also proves that money does not always flow across borders seeking the highest rate of return. This is to say that there are large untapped profit opportunities abroad and if it is possible to find such opportunities and take advantage of them, one can reap significant rewards. As investors are unfamiliar with the risks in the Baltic states they tend to exaggerate them.

Since August 1991 the three Baltic states—Estonia, Latvia and Lithuania, have been establishing themselves as independent nations. The change has been extremely rapid, and each country is spending a great deal of effort in restructuring its legal and institutional systems. They are trying to improve the "investment climate" and encourage foreign investment. This process will not be easy as many of the uncertainties and major risks still remain. The main concern is about trade and payments. Now it takes two to three months to clear payments between exporters and importers of the former Soviet Union states. The effort to solve the problem through bilateral intergovernmental trade agreements has a negative effect on resource allocation. The governments and not the markets powers are the decisions makers. Recently all Baltic countries left the rouble area and adopted independent currencies. However, potential investors still have to be cautious. Reforms of the financial system are just beginning; legislation concerning taxation, repatriation of profits and bankruptcy laws are not everywhere in place. Also, the question about the effectiveness of implementation is still to be answered.

This study deals with present and future prospects for foreign investment in the Baltic region, stressing the following elements:

1. Legislation and its implementation
2. Macroeconomic and financial indicators
3. Factor markets

\(^1\)Morris Goldstein and Michael Mussa at a conference held Aug. 19-21, 1993 in Jackson Hole, Wyo., under the aegis of the Federal Reserve Bank of Kansas City

\(*\) See Appendix-Efficient portfolio
(4) Marketable firms

The national economies of Estonia, Latvia and Lithuania are presented in turn. The chapters are differently organized in an attempt to make more readable this report. Our aim is to present all the useful information to the prospective investor, supported through easily understandable tables and figures, and give some forecast within reasonable limits. The last mentioned task is extremely difficult, and there will always be room for independent judgement.

The report contains of five sections plus a summery. The first section gives a general overview of the Baltic area and presents a comparative analysis of the basic economic indicators. The remaining three sections deal with Estonia, Latvia and Lithuania, respectively. At the end we present a list of contact organisations. A special glossary is included, containing economic terminology.

Borislav Petkov
Reykjavík
2. The Baltic States - Overview

The region covered by Baltic countries is relatively small, comprising some 0.8 per cent of the former Soviet Union (FSU) territory. The population of Latvia, Lithuania and Estonia taken together is only 2.7 per cent of the FSU population. However, even without any abundant natural resources the Baltic area's economic conditions are relatively better than those of the rest of the ex-Soviet Union republics.

Chart 2-1 Real Gross Domestic Product, Percent Change

![Graph showing real gross domestic product percent change for Estonia, Latvia, and Lithuania from 1987 to 1993.]

Chart 2-2 Inflation (Change in Consumer Prices), 1993

![Graph showing inflation change in consumer prices from January to May 1993 for Estonia, Latvia, Lithuania, and Russia.]

Chart 2-3 Unemployment Rate, 1993-1994, in Per cent

Chart 2-4 Average Monthly Wages, 1994 - DEM
As another indicator we can use the *Euromoney* Country risk (1992; 1993) ranking.* The rank by country risk: Estonia-117, Lithuania-118, and Latvia-123 from a total of 169 countries is not respectable, but the Baltic states are new entrants to the classification and probably not very well understood. As John Ries, General Manager of the ANZ Bank says, "Everyone has attempted to put a lot of science into country risk management but, at the end of the day, it is still largely a matter of subjective judgement". According to the *Euromoney* Global economic projections, based on the predictions of 40 of the world's leading economists, the Baltic states are ranked as shown in Table 1 below.

**Table 1. Euromoney Global Economic Projections**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Rank</th>
<th>Country</th>
<th>Overall economic performance</th>
<th>Overall economic performance</th>
<th>Overall economic performance</th>
<th>Real GNP growth forecast</th>
<th>Real GNP growth forecast</th>
<th>Real GNP growth forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>116</td>
<td>99</td>
<td>Lithuania</td>
<td>21.25</td>
<td>26</td>
<td>29.8</td>
<td>-19</td>
<td>-10.6</td>
<td>-3.4</td>
</tr>
<tr>
<td>123</td>
<td>83</td>
<td>Estonia</td>
<td>18.75</td>
<td>24</td>
<td>36.7</td>
<td>-16.5</td>
<td>-10.2</td>
<td>-0.7</td>
</tr>
<tr>
<td>125</td>
<td>94</td>
<td>Latvia</td>
<td>18.75</td>
<td>22.75</td>
<td>32</td>
<td>-16.5</td>
<td>-10.6</td>
<td>-3.3</td>
</tr>
</tbody>
</table>

*See Appendix, pp. 96 - 97*
The best possible score is 100, the worst zero. All factors are taken into account, including: sustained economic growth, monetary stability, current account and budget deficits or surpluses, unemployment, and structural imbalance.

After independence had been re-established in the three Baltic countries, the major reforms rapidly took place. All countries changed their legal systems in an attempt to encourage foreign investment. However, these countries were just emerging from a catastrophe. Their economic structures were inefficient, they lacked a culture of enterprise and their knowledge of the market system was poor. It is relatively easy to disintegrate the old system of a command economy, but the real challenge is to create a market economy. What, how and for whom to produce is no longer dictated, but it is difficult to get used to the new responsibility of taking the initiative. Great efforts are required to reform the industrial sector and make it competitive. Moreover, a powerful bureaucracy still exists as an obstruction to the new economic thinking, and there are just a few entrepreneurs.

The Baltic countries now participate in many international organizations. They have improved their relations with the Western world and especially with the Nordic countries. Iceland, followed immediately by the rest of the Nordic countries, was first to recognize independence of the three Baltic states and to establish diplomatic relations with them. Since then, various bilateral and multilateral agreements have been signed and assistance was provided in many spheres, e.g., statistics and management. Additionally, the Nordic countries have established special programmes to support investment in small and medium size enterprises in the Baltic countries, the so called Baltic Investment Programme. This programme has funds amounting to 75 million ecu with the purpose of providing loans and risk capital as well as technical help. The elements of the Programme are:

1. A 30 million ecu Baltic Project Investment Scheme administered by the Nordic Investment Bank;
2. A 30 million ecu Fund for loans and risk capital administered by the European Bank for Reconstruction and Development;
3. A 5 million ecu Fund for full-scale technical assistance to the Estonian Investment Bank, Latvian Investment Corporation and Lithuanian Investment Bank;
4. A 5 million ecu Fund for technical assistance for pre-feasibility and feasibility studies of investment projects;
5. A 5 million ecu Fund for technical assistance for the identification and appraisal of specific investment projects.

All these efforts to help the Baltic countries to become equal partners in international economic relations require sufficient time to succeed. In the short run, the
Baltic states' attempt to depart from the ex-Soviet system and stress instead Western marketing methods must be regarded as unrealistic. Trade with countries of the former Soviet block will have to continue. Western markets are simply too competitive and it is difficult for newcomers to penetrate. Furthermore, access to Western markets is not quite free and the prospects for the near future are not good. As Finland and Sweden have joined the European Union (EU) membership, this adds uncertainty to the status of the Baltic states' foreign trade.
3. Estonia - Land, Population, Political System and Language

The Republic of Estonia lies on the eastern shore of the Baltic Sea. It has a territory of 45,215 km² and a population of 1.6 million people. The population density is 35 people per sq. kilometre and ethnic composition: 61.5% Estonians, 30.3% Russians, 3.1% Ukrainians and 1.8% Byelorussians. The main religious denominations are Lutheran, Christian Orthodox and Baptist. Estonian is the official language and belongs to the Finno-Ugrian language group.

Estonia is divided administratively into 15 counties and 6 towns (the other 27 towns are subordinate to the counties). The capital is Tallinn, with a population of 484,400 (1990).

Geographically, Estonia is situated on the level north-western part of the East-European platform with only slight variations in elevation. The average elevation is only about 50 metres.

The most important mineral resources are: oil shale reserves estimated at 6,000 million metric tonnes and phosphorite at 700 million metric tonnes.

In general, the climate in Estonia is similar to that in central Sweden (Stockholm) and southern Finland (Helsinki).

The political environment in Estonia is still in a process of development. There are many political parties without clear platforms and visions. Mainly they can be divided into "leftist" and "rightist". The legal system is defined by the new constitution of 1992, according to which the Parliament (Riigikogu) is the highest legal body, with 101 members, elected for a period of four years. The Head of State is the President, elected in a general election for a period of five years. The current President of the Republic of Estonia is Mr. Lennart Meri. The Government of the Republic of Estonia holds the executive power, headed by a Prime Minister. The Prime Minister is appointed by the President and confirmed by the Parliament. Mr. Mart Laar is the current Prime Minister of Estonia.

3.1. Investment Possibilities and Obstacles

The Estonian authorities are fully committed to transition to a market economy. Until now the governmental stabilization and structural reform have been successful and over the medium term it is reasonable to expect the Estonian economy to grow. But there is still the risk of slower-than-expected implementation of economic policy reforms. Despite the fact that Estonia was among the best performers economically under the Soviet system, the re-establishment of a free (mixed) market economy built on the ruins of the command economy is a formidable task. As earlier economic ties with
the former Soviet Union became unreliable, shortages of raw materials have led to a drop in production. From February 1991 to February 1992 the cost of living increased more than 10 times and the real gross domestic product (GDP) fell by 30 per cent (estimated). At the same time the faster implementation of price reforms in Estonia compared to the other ex-Soviet Union republics had a very positive effect on the national economy. First, the local enterprises had the opportunity to buy imported goods cheaper, and sell their own production at much higher liberalised prices. Second, price reform had a positive effect on the government budget, which recorded a 6% surplus (of GDP) in 1991. This effect (faster price reform implementation) was temporary and in fact in the wake of rising the costs of inputs and the decreasing effective demand from Russia completely disappeared. As Russia raised its oil prices to the international market level, the result was a severe terms-of-trade shock for the Estonian economy. At the same time the depressed economic activity and the delays in the privatisation programme (especially the privatisation of large enterprises) worked toward a significant increase in the rate of unemployment. The current rate is about 3 per cent (May, 1993) therefore it would be reasonable to expect it to move within the range of 10 per cent to the end of 1994. If the unemployment rate reaches such figures, combined with the output slump, it would create enormous pressure on the government's budget. Simultaneously, on the positive side, the increasing unemployment will curb inflation and moderate labour market rigidity. In June 1993 the inflation rate was 1.3 percent and, compared with the performance of 1991 and 1992 (cf. table 2), showed essential stabilization.

Table 2. Estonia: Consumer Price Index, Monthly Changes
The immediate prospects for Estonia are rather optimistic. While the risks must not be underestimated, such as problems with trading arrangements, a reduction in GDP and an expected rise in unemployment, there is a real possibility, that towards the end of 1994 the decline in production will bottom out and output even could rise compared to the 1991 level. It is worth noting that Estonia has succeeded in increasing foreign trade with the Western countries. The currency reform and the government's efforts to maintain a stable monetary policy are also contributing factors for future prosperity.

Table 3 Number of Enterprises and Institutions by Field of Activity

<table>
<thead>
<tr>
<th>Field of Activity</th>
<th>May, 1994</th>
<th>July, 1994</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture and forestry</td>
<td>10472</td>
<td>10381</td>
</tr>
<tr>
<td>Fishing</td>
<td>245</td>
<td>255</td>
</tr>
<tr>
<td>Mining</td>
<td>77</td>
<td>80</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>8040</td>
<td>8250</td>
</tr>
<tr>
<td>Electricity, steam, gas and water supply</td>
<td>402</td>
<td>408</td>
</tr>
<tr>
<td>Construction</td>
<td>3831</td>
<td>3905</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>23616</td>
<td>27582</td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>3328</td>
<td>3394</td>
</tr>
<tr>
<td>Transport and communications</td>
<td>2694</td>
<td>2782</td>
</tr>
<tr>
<td>Financial intermediation</td>
<td>675</td>
<td>683</td>
</tr>
<tr>
<td>Real estate, renting and business activities</td>
<td>9363</td>
<td>7738</td>
</tr>
<tr>
<td>Public administration and defence</td>
<td>1028</td>
<td>1053</td>
</tr>
<tr>
<td>Education</td>
<td>1907</td>
<td>1932</td>
</tr>
<tr>
<td>Health and social work</td>
<td>1176</td>
<td>1205</td>
</tr>
<tr>
<td>Other community, social and personal service activities</td>
<td>6584</td>
<td>6953</td>
</tr>
<tr>
<td>Private households with employed persons</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Extra-territorial organizations and bodies</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>73444</td>
<td>76607</td>
</tr>
</tbody>
</table>
During 1994 the structure of the GDP (cf. chart 3-1 above) is expected to change further, as market-motivated private firms will relocate the physical assets in seeking the most effective use. Probably the sectors with the best chances for early recovery are textiles, wood and wood products, and agriculture. Major contraction is likely to occur in engineering industries, well accustomed to subsidized prices and secured markets.

Chart 3-2 Gross Domestic Product at Current and Constant (1990) Prices
3.2. Macroeconomic Aspects - Fiscal Policy, Trade and the Balance of Payments

Until 1990, the Estonian fiscal system was fully subordinated to the fiscal system of the Soviet Union. Since 1991, Estonia has had its own independent budget and modernized tax systems. The main elements in the new tax system are: (1) a progressive personal income tax with a top marginal rate of 50 percent on incomes in excess of 2000 EEK (i.e. ten times the monthly minimum wages); (2) a corporate income tax of 35 percent and (3) a value-added tax with a flat rate of 18 percent. Also specific excise duties, a social security tax and a natural resource tax have been introduced. For foreign investors operating in government-approved activities and depending on their share in the enterprises' fixed capital there are special exemptions from the corporate income tax (profit tax) as follows:

---when an enterprise is operating in an approved sphere, it will be 100% exempt for the first 2 years and 50% for the next 2 years;

---when an enterprise with foreign capital operates in a preferential field, it will be 100% exempt for the first 3 years and 50% for the next 2 years;

---when the foreign investor share is at least 30% but no less than $50,000, it will be 100% exempt for the first 2 years and 50% for the next 2 years;

---when the foreign investor share is at least 50% but no less than $1,000,000, the enterprise will be 100% exempt for the first 3 years and 50% for the next 5 years.

These packages are attractive, but as the profits of the foreign enterprises are fully taxed in their home countries, the result is simply remittance of income from Estonia to the rest of the world with a doubtful effect on a firm's decisions whether or not to open a branch there. This is to say political stability and macroeconomic prosperity would constitute a much more reliable attraction.

The consolidated budget for 1992 was in excess of EEK 190 million or 1.7 percent of GDP. Those fiscal developments (1992) must be viewed within the framework of a new financial system, the terms of trade shock and the newly introduced tax system. The central government budget for 1993 is expected to be balanced, with total revenue expected to increase by 71% and total expenditure by 78%.

Estonia has an open economic system. In 1990, exports amounted to about 50 percent of GDP, with the greater part going to the former Soviet Union. The share of trade with the former Soviet Union amounted to 90% of the total trade, but this situation was rather a result of central planning and did not necessarily reflect any comparative advantage. Since
Independence and especially after the introduction of the Currency Board\(^2\) the foreign trade has begun to adjust to a more rational and balanced trend. This can be seen in the changing patterns in exports and imports. In the fourth quarter of 1992, exports to the West increased significantly, approximating 70% of total trade. Now Finland is Estonia's biggest trading partner, followed by Sweden and Russia. The most exported goods are fish and fish products, wood and wood products, textiles, chemicals, and other manufactured products. In addition, a significant quantity of base metals was exported, some of which were illegal shipments of scrap originating from the ex-Soviet Union.

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Fuel and raw materials account for nearly 40 percent of total import expenditures, and unless a stable trading agreement with Russia is reached, there will always be uncertainty and a potential for energy crises in Estonia. Furthermore, any political problem between Russia and Estonia is likely to have a strong impact on the sensitive energy sector. This is well illustrated by the events of June 25, 1993, when the Russian authorities shut down gas pipeline in response to, the newly introduced Estonian law on residence and citizenship that concerned the Russian minority.

Table 4 Fuel in Stock, January 1, 1993 (in metric tonnes)

<table>
<thead>
<tr>
<th></th>
<th>Metric tons</th>
<th>Sufficient for days*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>100,441</td>
<td>96</td>
</tr>
<tr>
<td>Heavy fuel oil</td>
<td>140,422</td>
<td>25</td>
</tr>
<tr>
<td>Light fuel oil</td>
<td>4,627</td>
<td>18</td>
</tr>
<tr>
<td>Motor gasoline</td>
<td>7,817</td>
<td>7</td>
</tr>
<tr>
<td>Diesel oil</td>
<td>20,708</td>
<td>14</td>
</tr>
</tbody>
</table>

* Based on fuel consumption from the fourth quarter of 1991
In the past such a problem did not exist as Estonia was within the trading system of the Soviet Union. Estonia used to receive oil products and natural gas from Russia and delivered electricity to St. Petersburg and Latvia. Nowadays fuel shortages are due mainly to the disruption of trade with the former Soviet Union. Furthermore, because of hard currency constraints, the purchase from other sources is very restricted. That is why the Estonian authorities are trying hard to reach a sound agreement with Russia for the provision of energy. In addition, a complete investigation of the economic feasibility of foreign direct investment in that area is in the process of preparation.

It is worth noting that there was a considerable liberalization of the Estonian foreign trade system. All quotas and licensing requirements for imports have been removed except for the goods described in Table 4, below.

**Table 5 Trade Tariffs, percent**

<table>
<thead>
<tr>
<th>Imports</th>
<th>Hard Currency</th>
<th>Rubles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wine</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Vodka</td>
<td>100</td>
<td>300</td>
</tr>
<tr>
<td>Raw tobacco</td>
<td>40</td>
<td>70</td>
</tr>
<tr>
<td>Cigarettes</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Fur and fur goods</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Automobiles</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exports</th>
<th>Hard Currency</th>
<th>Rubles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art works</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Rapeseed oil</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

As seen from the table, imports into Estonia can be said to be essentially free. There are export subsidies on fish products, forest products and alcoholic beverages. These are not on a large scale but, they do favour the chosen industries against the others, at the same time distorting resource allocation.

The Estonian balance of the current account for 1992 (cf. table 5, below) has recorded a small surplus. The trade balance showed a deficit but this was more than offset by the invisible trade. The changing pattern of international trade from the former Soviet Union to the Western industrialized countries increased both exports and imports from them, but the final result, however, was a $32 million deficit. The service sector receipts showed a surplus of $51 million, thanks to (1) shipping, (2) port services, and
(3) earnings from hotels. Here, the Russian transportation plays a substantial role in port receipts.

**Table 6 Balance of Payments 1992, Million US Dollars**

<table>
<thead>
<tr>
<th>Exports</th>
<th>418</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS and Baltic countries</td>
<td>173</td>
</tr>
<tr>
<td>Other countries</td>
<td>245</td>
</tr>
<tr>
<td>Imports</td>
<td>459</td>
</tr>
<tr>
<td>CIS and Baltic Countries</td>
<td>182</td>
</tr>
<tr>
<td>Other countries</td>
<td>277</td>
</tr>
<tr>
<td><strong>Trade balance</strong></td>
<td><strong>-41</strong></td>
</tr>
<tr>
<td>CIS and Baltic countries</td>
<td>-9</td>
</tr>
<tr>
<td>Other countries</td>
<td>-32</td>
</tr>
<tr>
<td>Services (net)</td>
<td>51</td>
</tr>
<tr>
<td>Interest (net)</td>
<td>2</td>
</tr>
<tr>
<td>Private transfers</td>
<td>-</td>
</tr>
<tr>
<td><strong>Current account balance</strong></td>
<td><strong>12</strong></td>
</tr>
<tr>
<td>Clearing arrangements</td>
<td>-23</td>
</tr>
<tr>
<td>Reserves build-up (- = gain)</td>
<td>-200</td>
</tr>
<tr>
<td><strong>Financing</strong></td>
<td><strong>211</strong></td>
</tr>
<tr>
<td>Repatriation of gold</td>
<td>125</td>
</tr>
<tr>
<td>Direct investment</td>
<td>18</td>
</tr>
<tr>
<td>Commercial credits</td>
<td>23</td>
</tr>
<tr>
<td>Official transfers</td>
<td>31</td>
</tr>
<tr>
<td>International financial institutions</td>
<td>12</td>
</tr>
<tr>
<td>Other flows</td>
<td>2</td>
</tr>
</tbody>
</table>

**3.3 Commodity Markets**

The Estonian real GDP is estimated to have been growing 3 to 5 percent annually during the Soviet era. With the beginning of economic reforms real GDP has fallen by about 8 percent (1990), followed by 12 percent in 1991 and almost 32 percent in 1992 (cf. Chart 3-5).

Estonia's industrial sector accounts for more than 50 percent of the GDP and about 32 percent of employment. Industrial activity is concentrated in light industry, the food industry and engineering industries (cf. Chart 3-6).
**Chart 3-5 Real GDP, Percent Change over the Previous Year**

*Light Industry* - Estonia's well established textile mills (Kreenholmi Manufaktuur in Narva and Balti Manufaktuur in Tallinn) maintain a leading position with considerable quantities of cotton materials produced for export. Other important light industries are clothing and footwear. However, the light industry as a whole is not internationally competitive. Its development is dependent on imported raw materials and requires large infusions of capital for replacement of old and outmoded technology as well as management support.

**Chart 3-6 Industrial Output by Economic Activities, 1993**

- **Energetics**: 12.7%
- **Others**: 29.7%
- **Mining**: 4.7%
- **Furniture**: 5%
- **Chemicals**: 6.7%
- **Textiles**: 4.6%
- **Food industry**: 34.6%
**Food Industry** - consists mainly of the meat, dairy and fishing industries. As the local market for these products is unsatisfied and agricultural productivity is very low compared to Western standards, the options for access to export markets (outside the former Soviet Union) are very restricted. Only the fishing industry has some potential for exports to the world market. **Fishing Industry** - Estonia's coastline is more than 3,000 kilometres long and fishing is an old tradition for the country. The total catch in 1990 was 355,000 mt, of which 60,000 mt came from the Baltic Sea. Prior to independence about 90 percent of the fish and fish products were sold to Russia. Estonia has 15 fish processing plants. One of the plants, a joint venture company between a Finnish firm and an Estonian state-owned company already exports breaded fish fingers to the West. Most of the other plants need to be upgraded to meet Western standards. The total number of Estonia's fishing vessels is 210, made up as shown below (cf. table 7).

<table>
<thead>
<tr>
<th>Baltic Sea fishing fleet</th>
<th>On board processing</th>
<th>Distant water fishing fleet</th>
<th>Transport and other services</th>
</tr>
</thead>
<tbody>
<tr>
<td>115</td>
<td>20</td>
<td>70</td>
<td>5</td>
</tr>
</tbody>
</table>

The fleet is in poor condition compared to the fleets of Western countries. About half of the vessels are beyond the point where modification or repairs could increase their efficiency. But the remaining (better) half of the vessels could be improved with relatively small investments within the range of 30 to 40 thousand USD. This amount does not include the value of capital required for replacement or rehabilitation of fish handling equipment and of on-board processing plants. This is a good opportunity for foreign investment. Some flexible contracts could be arranged for the improvement of the ships' equipment. For example, Iceland has great experience in equipping Russian fishing ships with modern processing lines in exchange for a certain quantity of their future catch.

The fishing industry in Estonia also faces problems with fuel supply and fishing licence agreements. The new fishing agreements are in the process of being negotiated, but the breakdown in trade relations with Russia makes the availability of fuel and other input supplies very uncertain. As for privatization, the country is proceeding cautiously and there does not seem to be any intention of privatizing the large ocean fleet.

**Engineering industries** - The main sections are: (1) instrument-making including measuring, control instruments, and automation devices (RET, Tööstusaparaat); (2) electrical engineering - Estonia produces a significant quantity of electrical motors and cables (Volta, Eesti Kaabel), in 1989-2.3 per cent of the Soviet Union's electrical motors; (3) earth-moving machines (Talleks) - 4.5 per cent of the total Soviet production; (4) oil and gas processing equipment (Tallinn Engineering Plant); (5) food processing equipment
(Parnu Engineering Plant) and machinery and equipment repair. Most of the enterprises have had extensive linkages and a general orientation toward the former Soviet market. As the quality of the output was not of great importance there, and inputs of raw materials were guaranteed, with the changed conditions a difficult and prolonged adjustment process can be expected.

Chart 3-7 Rates of Return by Sectors of Industry

Chart 3-8 Financial Position of Estonian Enterprises
3.4. Factor Markets

Under the Soviet constitution employment was guaranteed and unemployment practically an unknown phenomenon. Even after the sharp drop in output (12%) in 1991, the rate of unemployment remained negligible (less than 0.5 percent) and at the same time the number of job vacancies was close to 9000-most of them for jobs requiring high qualifications. In 1992 the output fell 40% and unemployment rose to about 7%. Given the expected future deterioration of the terms of trade unemployment will most likely increase further.

The Estonian labour force is characterized by very high participation rates compared to Western standards. About 50 per cent of the population is employed, but 40 per cent in the Western countries. The labour force has a high level of education. According to 1989 data, 15 per cent are university graduates and 55 per cent had completed secondary school. However, the income structure by economic activity is almost unaffected by the educational level. The highest paid sectors are industry and construction, while the lowest paid are education, culture and health. The length of the working week is 41 hours. Labour mobility is low due to current regulations and to lack of housing.

Concerning unemployment benefits, the rules are strict, giving incentives for active job-seeking. To qualify for such a benefit a person needs to have had worked for at least six months during the previous year. An unemployment benefit is paid for the period of nine months, and is equal to 60% of the minimum wage.

Chart 3-9 Net Fixed Investment at Current Prices, 1980-1990 (mln roubles)
Estonia has 1.3 million hectares of agricultural land, of which about 1 million are arable. Of the arable land, 50 percent is used for forage crops, 43 percent for cereals, 5 percent for potatoes and the rest for vegetables and oilseeds. In 1990 crops accounted for 26 percent and livestock for 74 percent of the value of total agricultural output. The productivity of labour is significantly lower than in the Western countries. Estonian authorities still have to implement the law on ownership rights. The re-establishment of private ownership began back in 1989 but unresolved issues are still under discussion. Of course it is extremely difficult for the government to maintain a balance between the claims of previous owners, their descendants and the new farmers. By late 1992 a draft law had been presented to the parliament, setting the legal foundation for full ownership, sale, rental, mortgaging, etc.

Here again the main problem (and hope) is the restoration and maintenance of trade with Russia. However, even if it becomes possible, Estonia can expect a serious terms-of-trade deterioration. In the past Russia was a vast market place for Estonian meat, fish and dairy products, and used to supply the country with agrochemicals and energy. Obviously, if trade is to be organized according to world market prices it will be disadvantageous for Estonia.

3.5. Wages, Income and Prices

Prices and wages have dramatically changed their patterns in the last few years. In 1991 Estonian authorities decentralized the Soviet style wage system, where wages were determined according to the job classification list. Currently the wage structure is characterized by three levels - highest in the private sector, followed by the state enterprise sector and the lowest in the government sector. As wages became relatively free, the forces of demand and supply have started to play a more important role in wage determination. In addition the marginal productivity of labour and human capital quality are factors now exerting increased significance. The real wage adjustment was consistent with the sharp decline in the productivity of labour. Nominal wages lagged behind inflation and fell more rapidly than productivity (cf. Chart 3-12 below). This experience demonstrates that the wage developments are under control and the workers' trade unions still have a limited influence. The persuaded economic policy is sound. Social contributions have been increased to moderate the financial difficulties faced by certain segments of the society, but not at the expense of further cuts in investment. Nevertheless, the Estonian enterprises have reduced the volume of fixed investment by 75 per cent in 1992 as profitability declined, credit conditions were tight and employment was artificially maintained.
Estonia has achieved notable progress in price liberalization. Price reform started in 1989 and by the end of 1992 it was completed. The main problem faced in this area is the lack of competition in the local markets. Because the market is dominated by large companies (i.e. has a monopolistic structure - small and medium sized firms are very rare) there is not much choice left to the big producers. In theory, they are free to sell wherever they wish, but for large volumes the market is very thin and gives very limited options. It is most obvious in agriculture, where the big farm producers have no choice but to accept the prices offered by large processing companies.

3.6. The Financial Sector

On June 20th, 1992, Estonia left the rouble zone and introduced its own national currency - the kroon. The Estonian kroon (EEK) was pegged to the Deutschmark at a ratio of 8 to 1. To boost confidence in the new currency, a Currency Board has been established. A currency board is an institution that agrees to supply or redeem local currency bank notes for another currency at a given exchange rate without any restriction. In establishing the Currency Board Estonia needed to decide which currency to peg to, and how to provide sufficient foreign exchange reserves. The Deutschmark was ultimately chosen because of its stability.
and strength. Concerning foreign exchange coverage, Estonia began with 90 per cent and full coverage was attained later. All this was possible thanks to the restitution of the pre-war Estonian gold held by the Bank of England. The next problem was what liabilities to cover. Under the Estonian system not only the banknotes but the reserve deposits as well are covered. This was done to ensure that banks hold precautionary balances and because of the lack of an interbank clearing system outside the central bank. Everybody, both the banks and the general public, has access to the board, and can buy and sell Deutschemarks.

The Bank of Estonia is organized in two departments - (1) Issuing Department and (2) Banking Department. This institutional arrangement is aimed to guarantee that the Currency Board cannot be compromised. The Issuing Department operates the Currency Board, and its balance sheet is principally independent from the economy. On the liability side, it has banknotes and deposits in kroons placed with the Bank of Estonia; on the assets side foreign exchange sufficient to cover its liabilities. Seigniorage* is transferred to the Banking department.

Chart 3-11 Bank of Estonia Assets, 1992

*This is the command over goods and services the government can obtain through its right to print money.
The Banking Department holds the balances in surplus to the Issuing Department and in case of emergencies can provide loans to the banking system. The rules require that the Banking Department should purchase kroon funds from the Issuing Department in exchange for its surplus foreign exchange reserves. This department also bears the responsibility for arranging payments to the former Soviet Union.

As a consequence of this institutional arrangement (the Currency Board) the interest rates are really determined by market forces. This is to say that the authorities could enjoy a stable exchange rate, but they cannot control interest rates administratively or through open market operations. At present the lack of these tools for interest rates intervention is not so disturbing, as inflation in Europe is not a near-term problem. But if the only reason for low inflation is the high rate of unemployment (as seems to be the case) it could be expected to increase when the economy recovers. If this happens, the road to a beggar-thy-neighbour policy could be opened. Now when the future of the European Monetary System is very unclear and the collapse of Europe's exchange rate mechanism has allowed currencies to trade within 15 per cent bands, rather than the old 2.5 per cent range, the war of low interest rates and competitive devaluations could be difficult to avoid. The firm connection between its own currency and the Deutschmark could prove to be difficult for the Estonian economy to maintain. Now the Bundesbank is fighting internal inflation through a tight monetary policy and an over-valued Deutschmark. To avoid possible deflation, the Bank of Estonia cannot lower the interest rates or devaluate its currency. What is left is the labour market; the real
exchange rate could be reduced by a reduction of real wages, but only if the labour markets are flexible.

Real interest rates in 1991 were negative and well below the level of inflation. According to available information, the loan rates were around 10 to 20 per cent annually and lower on most deposits, compared with the inflation rate of about 200 per cent annually. In 1992 the loan rates increased and were on the average between 80 and 100 per cent, whereas the deposit rates rose 20 to 40 per cent. This spread between lending rates and depositing rates was due to the lack of competition within the banking sector, and reflects the high risk level of loans.

Chart 3-13 Annual Deposit Rates, 1992

<table>
<thead>
<tr>
<th>Term</th>
<th>December 31</th>
<th>November 30</th>
<th>June 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current account</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 6 months</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-12 months</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than 12 months</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Chart 3-14 Annual Lending Rates, 1992

We have also to note that the Bank of Estonia cannot be the "lender of last resort". Any action of the central bank must be within the limits of foreign exchange reserves held in excess. However, the exertion of constraint (by the Currency Board) does not mean that the quantity of money in circulation could be increased only in case of a current account surplus. It is valid only for base money, but growth in broad money aggregates could be generated through the money multiplier process.

Another important feature of the Estonian Currency Board is its capital control system. Accordingly, the foreign exchange earnings must be surrendered to authorised commercial banks within a certain period (24 hours for local accounts, 30 days for overseas accounts) and the purchase of foreign exchange with kroon is allowed only for current transactions. Firms are obliged to surrender their foreign exchange, but they could ask the commercial banks to sell their foreign currency on an auction market. Capital account transactions are subject to approval by the Bank of Estonia, with the exception of repatriation of capital by overseas investors.

Obviously the kroon is strengthening its position and gaining respect, as the Bank of Finland began to quote the rates of the kroon and a big Finnish bank (Yhdyspanki) opened an office in Tallinn.

The rest of the financial system is comprised of four specialised state banks, the commercial banks and three insurance companies. About 20 per cent of the total financial assets are owned by private commercial banks, but the dominant share (80%) is still in state-
owned banks. The development of commercial banking is going rather slowly but in the right direction, with a steadily increasing proportion of lending originating from there.

3.7. Marketable Firms

The prospective investor would have to make judgements resting on an array of assumptions for the probable future directions and magnitudes of change in production and prices, external trade and capital flow. Most importantly, one should calculate the Present Value* of his/her future receipts. It is worth noting that within the Baltic countries Estonia has the largest number of Western partners. Most of the joint-ventures are concentrated there. As an example we could mention the latest events: (1) in April, 1993, building was begun of a seven-storied four-star hotel with 181 rooms in Tartu. The project is financed by the Finnish entrepreneur Pauli Hyppönen. The estimated cost is more than USD 8 million and the money will be raised entirely from outside Estonia. The hotel must be opened in the summer of 1994 (2) A big chocolate firm - Kalev (situated in Tallinn) is in the process of selling to the Norwegian Nidar Bergene Company. Kalev is one of Estonia's most successful concerns with a turnover of USD 8 million in 1992 and about 1200 employees.

List of selected investment projects by estimated costs and sectors of the economy:

**Fisheries:**

- Fishing and fish canning
- Incorporation 'West', Haapsalu
  - Investment in equipment and production lines. Estimated cost-USD 2 million

- Production of 'Euro-Twist' lids for glass jars
  - The Estonian Canning Industry, Tallinn
  - Investment in a line for production of 15-20 million lids per year for glass jars at the existing plant for production of metal lids.
  - Estimated cost-USD 1.5 million.

*See Appendix-Present Value*
Food industry and agriculture:

- Processing of honey, jelly, bee venom, etc.
  Melli Ltd., Tartu, Estimated cost-USD 0.4 million.

- Processing of sheep wool
  Taros, Tallinn, Estimated cost-USD 0.5 million

- Pig slurry treatment, bio-organic fertilizer
  Agreco, Tallinn, Estimated cost-USD 0.5 million

- Freezing of currant berries
  Eisenschmidt, Tartu, Estimated cost-USD 1.1 million

- Tannery for fox and mink skins
  Prillimae Ltd., Rapla, Estimated cost-USD 1.5 million

- Extension and upgrading of fox and mink breeding
  Estmere Co-operative, Parnu, Estimated cost-USD 3 million

- Production of vegetables oil, margarine, etc.
  Perfumeri and Margarine Plant, Tallinn, Estimated cost-USD 11 million

Timber, wood-processing industries:

- Plywood manufacturing
  'Dorian', Abja-Palujoa, Estimated cost-USD 0.5 million

- Wood, furniture and upholstery manufacture
  Viljandi Furniture, Estimated cost-USD 1.6 million

- Production of wallpaper (increased capacity, planned for 1995-96)
  Kohila, Estimated cost-USD 5 million
Paper mill (planned for 1993-95)
Tallinn, Estimated cost-USD 12 million

Corrugated cardboard and box production (planned for 1996-98)
Tallinn, Estimated cost-USD 20 million

Construction of a CTMP pulp mill.
Kehra Paper Ltd., Estimated cost-USD110 million

Construction of a bleached sulphate pulp mill (planned for 1996-98)
Kehra Paper Ltd., Estimated cost-USD 520 million

Construction:

Manufacturing of heat accumulators, boilers, heating elements, stoves
‘Kuteks’, Keila, Estimated cost-USD 1.5 million

Manufacture of bricks for restoration work
Kalju Collective Farm, Estimated cost-USD 2 million

Fittings for production of polymer concrete
Parnu Building Materials Plant, Estimated cost-USD 4 million

Production of ceramic bricks
Building Ceramic Plant, Tallinn, Estimated cost-USD 15 million

Production of steel billets and construction profiles (from local steel scrap)
Uni-Est, Tallinn, Estimated cost-USD 20 million

Engineering industries:

Truck repair and maintenance
‘Toros’, Tallinn, Estimated cost-USD 0.4 million
Development of optical instruments for analytical investigation
Interspectrum AS, Tartu, Estimated cost-USD 0.5 million

Drinking glass production
Tarbeklass, Tallinn, Estimated cost-USD 0.7 million

Carpet manufacturing
'Mistra', Tallinn, Estimated cost-USD 0.7 million

Production of detergents (phosphate-free)
Flora Ltd., Kadrina, Estimated cost-USD 1 million

Production of stainless steel cultery, etc.
'Juveel', Tallinn (Kuressaare). Estimated cost-USD 3.5 million

Manufacture of glass containers and bottles
Building material company, Tartu, Estimated cost-USD 3-4 million

Announcement - International Tender for the Sale of Industrial Enterprises by the Estonian Privatization Agency (EPA). Closing date December 16, 1993
Phone: +358-49-10 61 03 Fax: +358-49-10 61 00
+372-2-45 44 60 +358-49-10 61 01

Tender Conditions:

1. The sale will be organized in the following manner:
   a) bids for a state-owned joint stock company must be for a majority share of the company
   b) bids for a state owned enterprise must be for its total operations
   c) bids for a plant must be for its total assets, e.g. buildings, leasehold, equipment and inventory
   d) bids for assets or parts of an enterprise must for a separable unit

2. The tender is public and anyone may bid.

3. In deciding among the bids, EPA will take into consideration, among other
things, the bid price, promises to maintain or create jobs, pledges to invest, and
the business plan submitted, each of which will be considered part of the bid.
Upon signing a contract, the successful bidder will be required to post a bond in
order to guarantee these pledges.

4. Interested parties can obtain enterprise and plant profiles without charge from
EPA. EPA is not responsible for the accuracy and completeness of this
information. Prospective bidders will receive written authorization from EPA to
visit the enterprises or plants on the basis of which additional information will
then be provided by the enterprise or plant management.

5. Bids must be in writing and should be submitted in a sealed envelope marked
only with the name of the enterprise or plant for which the bid is submitted.

6. Bids must be received at EPA, Ravala 6, EE0105 Tallinn, Estonia, no later than
2:00 p.m. (local time), on December 16, 1993. Bids will thereafter be opened
immediately. Bids must be denominated in Estonian Kroon (EEK) or Deutsche
Mark (DM), and must remain valid for one hundred and twenty (120) days after
the closing date.

7. Bids must be accompanied by a bond of five (5) percent of the bid price in the
form of irrevocable bank guarantees valid for one hundred and twenty (120)
days after the closing date. The bid bond must be payable on first demand and
will be forfeited if the bidder either fails to hold its bid open for the required
period or refuses to sign a contract in accordance with its bid.

8. EPA will decide on the bids within one hundred and twenty (120) days after the
closing date. EPA is not bound to accept any bid. EPA may accept a bid other
than the highest and may reject any of the bids at any time.

9. The tender will be carried out according to applicable Estonian law.

Selected Enterprises:

<table>
<thead>
<tr>
<th>General Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Capacity/Turnover in million EEK per year)</td>
</tr>
</tbody>
</table>

EE-439 RE Tallinna Helikassetitehas
EE0026 Tallinn
Manufacturing of recorded music tapes (5 mio pcs/27)
EE-469 RAS Harju Asfaltbetooni tehas  
EE2270 Lagedi  
Asphalt (29,000t/74)

**Construction Industry**

(Capacity/Turnover in million EEK per year)

EE-318 RAS Eesti Rannachitus  
EE0013 Tallinn  
Harbour asphalting {500,000sqm/48}

EE-386 RE Sillaehitusrong nr. 423  
EE0001 Tallinn  
Construction of bridges {300-500m, freeways and tunnels/148}

**Wood and Wood Processing**

(Capacity per year)

EE-408 RAS Elva Metsamajand  
EE2442 Elva, Tartumaa  
Timber trading, sawn timber, wooden construction components, wooden articles,  
furniture - {Sawn timber- 6000 cbm, Logs- 20 000 cbm}

EE-413 RAS Mahtra Metsamajand  
EE3422 Hageri, Rapla Maakond  
Logging, sawn timber, windows, garden cottages - {Sawn timber- 6000 cbm,  
Logs 10 000 cbm}

**Wholesale / Transportation**

EE-217 RAS Eesti Tekstiil  
EE0006 Tallinn  
Textile wholesale - {Turnover-70 million EEK per year}
**List of suggested contact organizations:**

<table>
<thead>
<tr>
<th>Organization</th>
<th>Address</th>
<th>Phone</th>
<th>Fax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estonian Privatization Agency</td>
<td>Mr V. Sarnet, Director</td>
<td>+372 2 454 490</td>
<td>+372 2 454 450</td>
</tr>
<tr>
<td>Ravala 6, EE0100, Tallinn, Estonia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estonian Chamber of Commerce and Industry</td>
<td>Add. Toom-Kooli 17, Tallinn-200106</td>
<td>+372 2 444 929</td>
<td>+372 2 443 656</td>
</tr>
<tr>
<td>Estonian Small Business Association (EVEA)</td>
<td>Add. Kuhlbarsi 1, Tallinn-200104</td>
<td>+372 2 431 577</td>
<td></td>
</tr>
<tr>
<td>Estonian Fishery Association</td>
<td>Add. Kingissepa 14, Tallinn-200 106</td>
<td>+372 2 683 442</td>
<td>+372 2 682 283</td>
</tr>
<tr>
<td>Estonian Farmers' Central Union</td>
<td>Add. Saku, Harjumaa-203 400</td>
<td>+451 783</td>
<td></td>
</tr>
<tr>
<td>Ministry of Finance of the Republic of Estonia</td>
<td>Add. 1 Suur-Ameerika str., Tallinn EE 0100</td>
<td>+372 2 683 445</td>
<td>+372 2 682 097</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>173106 PLAAN SU</td>
</tr>
</tbody>
</table>
Bank of Estonia
Add. Kentnaani 13, Tallinn-200100
Phone: +372 2 445 331
Fax: +372 2 443 395
Telex: 173146 EPANK SU
3.8. Prospects

Substantial progress is achieved by economic stabilization. The fall in output appears to have bottomed out and the economy might be on its way out of depression. Significant and rapid growth of trade with the industrial countries and the growing confidence in the kroon (Estonian currency unit) would contribute to early recovery. Inflation is being brought under control, as is evident from its very moderate monthly rates.

Privatization and restitution still have to be accelerated. The legal framework for a market-oriented economy has not been quite completed.

The four quadrant diagram *below shows some of the main economic indicators for 1991 and their forecast value for 1994.

4. Latvia - Land, Population, Political System and Language

The Republic of Latvia is located on the eastern coast of the Baltic Sea. With an area of 64,589 km² Latvia is bordered by Estonia to the north, Russia to the east, Belorussia to the south-east and Lithuania to the south. The length of the Baltic Sea coast line exceeds 500 km. The average elevation of the land surface is 87 m above sea level, and the highest point, Gaizinkalns, rises to 312 m. Of the total surface area 40 per cent is agricultural land and 41 per cent is covered by forests. Latvia is not rich in mineral resources. Peat is the only combustible mineral of industrial significance. Most important for the national economy are raw building materials such as limestone, dolomite, gypsum, clay, sand and gravel. There are more than 12 thousand rivers in Latvia although only about 800 of them are over 10 kilometres long. The largest lake is Lubans with an area of 80.7 km² followed by another 140 lakes with a surface area larger than 1 km². The annual mean air temperature in Riga (the capital) is 5.6°C in January minus 5°C and in July 17.1°C. The population estimated at 2.6 million in 1992, is composed of the following ethnic groups: Latvians-53.5 per cent, Russians-33.5 per cent, Belorussians-4.2 per cent, Ukrainians-3.2 per cent, Poles-2.2 per cent, and other nationalities 3.4 per cent.

The Latvian language belongs to the Baltic language group of the Indo-European language family. It is one of the two still living Baltic languages, the other being Lithuanian. As almost half of the inhabitants of the country do not speak Latvian there is a rapid increase in borrowed words from Russian.

Latvia enjoyed independence for a relatively brief period from 1920 to 1939 and in 1940 it was constituted as a Soviet Republic. The country regained its independence in September 1991, and in September 17, 1991, it was accepted as a member of the United Nations Organization.

4.1. Investment and Export Opportunities

During its short period of independence between the two World Wars (1920-1939) Latvia had a relatively well-developed and even advanced economy. In the post-war period the development of its national economic structure was closely tied to the USSR's centrally planned economic system. Nevertheless, local industry expanded vastly and large enterprises were created. Their operations were almost totally dependent on raw materials imported from Russia and the other Soviet republics. As for the agriculture, that sector was forcibly collectivised or nationalised by the state.
Currently the Latvian economy is under constant pressure from contracting output and rising prices, resulting in a significant drop in the living standard. However, such a short-term adjustment towards a market oriented (mixed) economy is not unusual. The task is extremely difficult as the authorities have to deal simultaneously with excessive demand from one side and supply shocks from the other. One of the main factors contributing to output decline is the deterioration of trade relations with Russia and the other ex-Soviet republics. In the past Latvia used to import all its oil products and about 50 per cent of its electricity from there. In spite of this, at the beginning of the transformation (1990-1991) industrial sales were not significantly affected, but that situation could not be kept stable as eventually sales on the demand side had to match production on the supply side, differences (insignificant and temporary) being covered by inventory changes. Consequently real gross domestic product fell by 8 percent in 1991 and further worsened by about 33 percent in 1992. This came as a result from the switch to world market prices by the ex-Soviet republics and particularly Russia. Additionally, the depressed economic activity and the political uncertainties led to a sharp drop in investment. Fixed assets put into operation in 1991 have decreased by 58 percent compared to the 1990 level and more than 80 percent in 1992 based on 1991 figures. In spite of all these problems the labour market (strangely enough) has remained in equilibrium, i.e. the rate of unemployment was negligible in 1991 and on October 1, 1992, only 1.2 percent (cf. Chart 4-1, below) of the total population of working age was registered as jobless. The explanation for such labour market behaviour is most likely based on political grounds. Another contributing factor could be the improved financial conditions of the Latvian enterprises. This improvement -- temporary and artificial, came as a result of a faster price liberalization than in Russia and was helped by the negative net migration.

The country's banking and financial systems are still inefficient. The ongoing restructuring of the Latvian central bank gives the impression of inconsistency and confusion. However, institution building is still at a very preliminary stage and at the beginning of 1994 some signs of progress were visible. Monetary overhang and excessive demand have been reduced, which resulted in a low single-digit monthly rate of inflation (cf. Chart 4-2). The expected compensation for all the gold * held by Latvia with foreign central banks since the Soviet occupation in 1940 will help to build up the Bank of Latvia foreign currency reserves and create confidence in the local currency. Another positive feature is the low level of Latvian foreign debt, thanks to which interest

* About USD 120 million, in 1991 gold prices
payments are negligible, amounting to only 0.25 percent of GDP in 1992. But this could be misleading as Latvia's share in the external assets and liabilities of the former Soviet Union still has to be negotiated.

Chart 4-1 Ratio of Unemployed to Population of Working Age

Chart 4-2 Inflation, Monthly, January 1991-May 1993

Latvia has a well developed infrastructure, particularly the transport system, and a well educated, relatively cheap labour force. At present a quarter of the people employed
in the national economy have higher or secondary special education (cf. Chart 4-3). Monthly wages (labour remuneration) increased about 26 times between 1990 and 1993, but the growth of inflation was higher; hence real income dropped and the purchasing power of the employed declined (cf. Chart 4-4). The Latvian government intend to accelerate the pace of privatization, but for now it continues to be slow. The primary obstacles have political character. Clearly, the authorities have been unable to design a consistent privatization programme.

Chart 4-3 Number of Employed with Higher and Secondary Education

Chart 4-4 Change in Purchasing Power of the Employed
4.2. Macroeconomic Indicators

Macroeconomic indicators are difficult to evaluate as they are under constant revision and often differ significantly between different sources of information. However we shall try to find the basic economic trends and explain the current events. Output (GDP) has declined continuously since 1990 (cf. Chart 4-5).

**Chart 4-5 Latvian GDP at Current and Constant Prices, 1980-1992**

In 1991 the figures for contraction of economic activity by sectors were: 42 per cent for construction, 39 per cent for services and 4 per cent for agriculture. Industrial output remained at the 1990 level but at the expense of inventories of raw materials and intermediate goods. On average the real GDP fell 8 percent in 1991. The main cause for negative economic growth was the destruction of trade relations with the former Soviet Union states. As the economy of the Soviet Union had a high degree of specialisation and integration, the collapse of even a few economic links was enough to start a domino effect. The economic and political uncertainties led to the introduction of export controls and a lack of confidence in the Russian rouble reduced trade to barter exchange. Obviously, such a policy was aimed to protect each national economy from shortages of goods but actually contributed to the further fall of real GDP by 33 percent in 1992. However, in the beginning of 1993 the fall in GDP seems to have bottomed out. The situation remained unstable, however, and the GDP is likely to fall further unless trade relations with the ex-Soviet states are reactivated. In the near future Latvia can not sell on the highly competitive Western market given the outdated technology and low quality of its products.
The Latvian economy is highly dependent on inputs from Russia. The country is a net importer of raw materials and intermediate products and a net exporter of finished goods and food products (cf. charts 4-6, 4-7).

Chart 4-6 Composition of Export Selected Commodities, 1987-91

Chart 4-7 Composition of Imports, Selected Commodities, 1987-91
Trade with the former Soviet Union republics is still conducted in a way incompatible with a market economy principles. The Latvian authorities' attempts to restore trade relations with Russia should be carried out avoiding state orders and any obligatory lists. Such lists include the most important products traded at the government level. The main difficulty with lists and state orders removal is that most of the goods on the lists remain under price control. As these products are supplied at prices below international market prices the state must interfere to prevent exporters from raising them.

Foreign trade relations have shown some movement towards the new Western partners and a reduction in the volume of trade between Latvia and the Commonwealth of Independent States (CIS). However, the main share of fuels comes from Russia. The volume of fuels in 1992 was substantially lower than the 1990 level. Gasoline fell 60 per cent, diesel fuel 50 per cent, and coal 44 percent. Non-energy imports from the CIS also declined considerably; in 1992 the volume was 55 per cent less than in 1990. The volume of exports followed a similar but less pronounced pattern with a 33 per cent drop in 1991 and a 19 per cent drop in 1992. The distribution of Latvian trade within the former Soviet Union states has not changed significantly (cf. charts 4-8, 4-9).

Chart 4-8 Distribution of Latvia's Exports Within the FSU Area
Table 8. Changes in Imports by Selected Commodities 1991-92

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline, thsd t</td>
<td>397</td>
<td>91</td>
<td>125</td>
<td>1449</td>
</tr>
<tr>
<td>Diesel oil, thsd t</td>
<td>883</td>
<td>146</td>
<td>320</td>
<td>2042</td>
</tr>
<tr>
<td>Residual fuel, thsd t</td>
<td>875</td>
<td>70</td>
<td>126</td>
<td>371</td>
</tr>
<tr>
<td>Coal, thsd t</td>
<td>608</td>
<td>19</td>
<td>382</td>
<td>616</td>
</tr>
<tr>
<td>Electricity, mln kwh</td>
<td>4772</td>
<td>239</td>
<td>2006</td>
<td>3992</td>
</tr>
<tr>
<td>Natural gas, mln m³</td>
<td>2753</td>
<td>110</td>
<td>1562</td>
<td>7860</td>
</tr>
<tr>
<td>Liquefied gas, thsd t</td>
<td>54</td>
<td>9</td>
<td>16</td>
<td>4727</td>
</tr>
</tbody>
</table>

The value of overall trade turnover increased sharply with a parallel decline in real terms (cf. table 7), resulting both from a rise in prices in both Latvia and the CIS as well as from unfulfilled inter-governmental trade agreements. Depreciation of the domestic currency in 1991 and 1992 had significant effect on trade valuation with the industrial
countries. The total value of imports to those countries rose from 26 per cent in 1990 to about 43 percent in 1992, as the export share rose to 52 per cent in 1992 from 5 percent in 1990.

The terms of trade changed continually following the relative price adjustments, the supply shocks and depreciation of the local currency. At the outset of the transition the terms were favourable for Latvia. The price reform (earlier than in Russia) was a contributing factor and also led to improvement in the current account balance (cf. chart 4-10). When in 1992 prices were liberalized in Russia and Latvia had to pay the international market price for fuel and energy imported, trade and current account balances sharply deteriorated.

**Chart 4-10 Changes in Current Account and Trade Balances 1985-1992**

As seen from the Chart (above) the current account showed a surplus in 1991, reaching to 8 per cent of GDP. However, the trade balance for 1994 could be expected to show a deficit. Since the net services revenue is likely to be positive but not enough to cover the negative trade balance, the current account balance will be in deficit. The deficit is estimated at 12 per cent of GDP in 1993.

We must note that the balance of payment figures are probably subject to significant errors. Latvia is engaged in serious re-exporting activities. In consequence of its geographical location and more recently arbitrage opportunities. These in turn are
due mainly to price controls and subsidies still existing in the neighbouring countries. This situation creates immediate opportunity for an "arbitrageur" to import such underpriced goods and re-export them at much higher prices. Usually the transaction is unrecorded as it is informal.

The Latvian trade system is a liberal one. There is no import license requirement. However, import duties are levied within the range of 7.5 to 20 percent on most of the goods. Alcoholic beverages, tobacco and automobiles are subject to higher duties.

Export duties are levied on a small number of goods such as timber, wood products and metal products. Exports are exempt from VAT and excise taxes.

Latvia has free trade agreements with Norway and Sweden. Most-favoured-nation (MFN) status is given to Iceland, Austria, Hungary, Russia, Poland, Cuba and most of the ex-Soviet states.

Fiscal and Budgetary System

In the past Latvia's fiscal and budget systems were an integral part of the Soviet system. Since 1990 Latvia has changed the structure of its budget revenues and expenditures. On the revenue side tax reform was implemented replacing the old tax system with one having a Western type structure. The tax system now (1993) consists of the following elements:

Profit Tax - this tax is levied on the net earnings of enterprises and the self-employed. Net earnings are calculated as gross earnings less permitted deductions. The main deductible costs are: labour costs, costs of materials and services used in the process of production, depreciation allowances, and social insurance contributions. The tax rate ranges from 25 to 65 percent:

<table>
<thead>
<tr>
<th>Tax Rate</th>
<th>25 percent</th>
<th>35 percent</th>
<th>45 percent</th>
<th>65 percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicable</td>
<td>Private enterprises</td>
<td>State enterprises</td>
<td>Trade, banking insurance</td>
<td>Casinos and gambling</td>
</tr>
</tbody>
</table>

Foreign legal persons engaged in business in Latvia pay for liabilities according to the Law on Foreign Investment. Depending on the share owned, the foreign party is exempted from profit taxes for a period of two to three years and has the right to a 50 percent tax reduction for the following two to five years.
**Personal Income Tax** - this is a tax on wages including bonuses. The tax is progressive, based on multiples of the minimum wage and range from 15 to 35 percent. Income tax is not levied on: profits or dividends from business activities, income from government bonds and treasury bills, interest from deposits in credit unions, social insurance fund compensation, etc.

**Value-Added Tax** - a tax on value added, levied on goods and services. Some of the exempted goods are: food products, farm inputs, children's items, rents, and exports earning convertible currency. The tax rate is 12 percent for all goods with the exception of milk, meat and fish, for which the rate is 6 per cent.

**Excise Taxes** - they are levied on producers or importers of alcoholic beverages, tobacco, precious metals and jewellery, and luxury perfumes. Exports are exempted.

**Custom Duties** - Export duties are paid on wood, paper, metals, leather and some other commodities. An import duty of 15 percent is levied on goods imported from countries having trade agreements with Latvia. For imports originating from countries that do not have a trade agreement the rate is 20 percent.

**Other Taxes** - A property tax is imposed on fixed assets and unfinished construction. *The land tax* is a tax on land use. *The Natural resource tax* is aimed to encourage efficient use natural resources and decrease pollution.

Although Latvia had its first independent budget in 1991 it is worthwhile to take a closer look at the budgetary developments of the last decade (cf. chart 4-11, below). It is quite clear that since the beginning of the period up to 1989 the government budget was in balance or showed a small surplus. Then in 1990 the surplus increased and in 1991 reached its highest record of 6.5 percent plus in relation to GDP. These surpluses were rather exceptional and in fact in 1992 the government budget was 1.5 percent in deficit. For 1993 the government budget is expected to be balanced. What were the causes for these fluctuations? They came as a result of several contributing factors: a reduction of subsidies to enterprises, faster price than wage increases, the introduction of new taxes and larger than planned revenues because of improvement in the terms of trade.
The ratio of total expenditures to GDP was about 50 per cent and stayed stable from 1983 to 1989 with slight and insignificant movements. In 1990 ratio dropped to 44 per cent of GDP and since than has continuously declined. For 1992 the ratio of expenditures to GDP fell to about 30 per cent and for 1993 is expected to be about 26 per cent.

4.3. Economic Policy - Industry and Agriculture

The Latvian authorities' approach towards economic reform seems to be rather specific. First, they concentrated on structural reforms then and later began to stabilize the economy. Not until July 1992 did Latvia leave the rouble area and started any practical attempt at currency stabilization. At that time trade and price reforms were in an advanced stage, but the privatization program was not fast enough to ensure any consistent response from the economic agents. To some extent privatization of the land and small enterprises could be considered successful but the privatization of medium-scale and large enterprises has been proceeded slowly due to the lack of clear regulations. This situation imposed additional requirements on the economic policy. The monetary and credit policies, as well as fiscal and income measures, needed to be very carefully co-ordinated. Their combined effect had to compensate for the enterprises' non co-operative behaviour. The management of non-privatized firms had no incentive to promote efficiency and profitability. Such firms usually accumulate excessive arrears.
owed to one another and do not hesitate to increase wages without improvement in labour productivity. The successful outcome of the reforms will depend to a great extent on the completion of the privatization program, on the establishment of the legal infrastructure, and on sound investment policy. All those measures will have to find their specific forms for the different sectors of the economy.

Chart 4-12 GDP by Sector of Economic Activity, 1992

Chart 4-13 Employment Distribution by Economic Activity, State Sector
Currently, Latvia is the most industrialized Baltic state. Its industrial output in 1989 was 59 times as much as in 1940. The greatest development and growth rates are characteristic for machine building, metal working, electronics and chemical industries (cf. chart 4-13).

Chart 4-13 Industrial Output 1980-91, at 1982 Prices

The Latvian industrial enterprises are too large by Western standards. Most of them are by design in monopolistic or oligopolistic positions in the local market or even in the market of the former Soviet Union. The producers of some goods will be able to get orders without having to make any changes, as they are the sole manufacturers of products that are technically irreplaceable - at least in the short term.

**Table 9 Production of Selected Goods in Latvia, 1989**

<table>
<thead>
<tr>
<th>Commodities by type</th>
<th>Livestock</th>
<th>Chemicals</th>
<th>Radio receivers</th>
<th>Washing machines</th>
<th>Furniture</th>
<th>Fisheries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of total USSR production</td>
<td>4.2</td>
<td>3.3</td>
<td>17.4</td>
<td>9.1</td>
<td>2.1</td>
<td>4.9</td>
</tr>
</tbody>
</table>

Recently the industrial sector has been undergoing serious restructuring. As demand for Latvian goods fell considerably and supply of raw materials and energy sharply declined, the enterprises had to adjust to the changed conditions. However, the
improved financial conditions (1990 and 1991) and the ability of most of the enterprises to set output prices at artificially high levels kept industrial output from falling. In 1992, total industrial output declined by 40 per cent, suggesting that the short-term outlook is not optimistic. Furthermore, as the Latvian enterprises were too long protected from any sort of competition, their ability to integrate rapidly into the world market structure is very restricted. The technology and equipment used are out of date to the degree that only 10 to 12 per cent of the physical capital employed could produce internationally competitive goods.

Table 10 Profitability of Enterprises by Sector of Economic Activity, 1991

<table>
<thead>
<tr>
<th>Sector</th>
<th>Agriculture</th>
<th>Manufacturing</th>
<th>Fishing</th>
<th>Construction</th>
<th>Trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit,</td>
<td>38</td>
<td>26.2</td>
<td>37.2</td>
<td>16.5</td>
<td>16.2</td>
</tr>
<tr>
<td>percent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

At the same time Latvia has the potential for designing high quality products. The Latvian labour force is highly skilled and is the best among the Baltic countries. This is partly due to the fact that Latvia has the highest ratio of workers employed in the military industries. In spite of the abundance of human capital, investment in machinery remains critically important for increasing productivity.

Agriculture

The agricultural sector in Latvia accounted for 24 per cent of GDP in 1992. The area of cultivated land amounts to 2.57 million hectares, of which 1.7 million hectares are arable. In 1992 the volume of agricultural production increased by 10 per cent compared to 1938 at the same time as livestock production increased 1.3 times. It is therefore clear that agriculture is focused on livestock production. In 1992 real agricultural output fell by almost 13 per cent over the previous year, but the process of contraction had started earlier, before independence (cf. chart 4-14). Latvian agricultural productivity is higher than the average agricultural productivity of the ex-Soviet Union, but is still not competitive as compared to the agricultural sectors of industrialized countries (cf. table 10).

Table 11. Agriculture Productivity, 1989

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Latvia</th>
<th>USSR</th>
<th>Finland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grain (quintals/ha)</td>
<td>23.5</td>
<td>19</td>
<td>29.3</td>
</tr>
<tr>
<td>Potatoes (quintals/ha)</td>
<td>155</td>
<td>20</td>
<td>219</td>
</tr>
<tr>
<td>Sugar beet (quintals/ha)</td>
<td>294</td>
<td>249</td>
<td>320.3</td>
</tr>
<tr>
<td>Milk (kg/cow)</td>
<td>3636</td>
<td>2600</td>
<td>5246</td>
</tr>
</tbody>
</table>
Chart 4-14 Agricultural Production 1980-91, at 1983 Prices

*Fisheries*

Marine fishing is an important economic subsector for Latvia. The countries’ fishing fleet is the largest among the Baltic states with 351 vessels. Latvia has 13 fish processing plants. The fish catch in 1992 was 149 thousand tonnes or well below the usual (cf. table 12).

**Table 12. Fish Catch, 1985-1992**

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tld. tonnes</td>
<td>537.9</td>
<td>471.3</td>
<td>369.9</td>
<td>149</td>
</tr>
</tbody>
</table>

In brief, the fishing industry is facing difficulties. The general condition of the fishing fleet is poor and foreign investment is needed for its improvement. Furthermore, the processing plants have to be upgraded to Western standards.

4.4. Wages and Prices

Under the Soviet central planning system the demand for labour and the level of wages were determined administratively by different legislative bodies. "Unemployment" never existed at that time as the underemployed and in fact the "unemployed" were kept on the payroll.

In 1991 the Latvian government undertook to change this system and introduced new regulations for state-owned enterprises. The minimum wage was set as a base and the remunerations for different skills were determined as multiples of the minimum.
Wages outside budgetary organizations were left unrestricted but subject to minimum compensation in accordance with consumer price index movement. The policy towards non-budgetary state enterprises was changed in 1992 to prevent excessive wages increase. Certain wages ceiling was established and the enterprises willing to pay higher wages were made subject to a steep progressive tax. As a result the real wages in the government sector rapidly decreased. In 1991 they fell down by 14.5 percent and with 17.5 percent in 1992 (cf. Chart 4-15).

**Chart 4-15 Real Monthly Wages, Percent Change Quarterly, 1991-92**

The bulk of the income is still in the form of wages, as more than 90 per cent of the labour force is employed in state enterprises and on collective farms. Another notable feature of the labour market is its ethnic segmentation—Russians being employed in industry, while Latvians dominate the agricultural sector.

In 1991 the Latvian government started price liberalization and by now only a very limited number of items remain under some sort of price control. The price reform succeeded in reducing the cost of labour and the excess demand for goods. Prices grew at a higher rate than wages (cf. chart 4-16) contributing to equalization between the rates of efficiency earnings and real wages. Additionally, the price reform was aimed towards relative price realignment. This is a complicated process which may lead to serious business fluctuations. Such fluctuations could result as a consequence of the misperception of aggregate and relative price movement. When the one is taken for the
other, disproportional concentration of capital can occur in a given branch of the economy. Such a distortion could lead to destruction of capital, followed by deflation or inflation (depending on government policy) and because economic agents are then confused and sales falling the process could end with recession. That is why the significant steps toward establishing a market economy need to be reinforced by a proper price system, capable of transmitting correct signals between economic agents.

Chart 4-16 Changes in Consumer Prices and Wages 1988-91

4.5. Money Markets - Banking and the Financial Sector

Until recently (1988) the Latvian financial system was subordinated to Soviet institutional arrangements. The decisions were made in Moscow and the local banks were reduced to branches of the Soviet banks. The reform in this sector began before independence, initiated by the Soviet authorities. The objective was establishment of a two-tier banking system. After the declaration of independence, Latvian authorities nationalised all branches of the Soviet banks and began to implement their own reform programme. The Bank of Latvia was set up as the central bank. It began operating in
July 1990, engaging both in supervision of the commercial banks and in commercial banking. As it is difficult to combine central bank responsibilities with commercial bank profit interests, in 1992 steps were taken toward a more proper central bank structure. The balance sheet was divided and commercial activities were left to separate branches of the Bank of Latvia. However, the Bank of Latvia is still owner of those branches which carry out the largest commercial operations and hold 85 per cent of all credit in the national economy.

There are about thirty private commercial banks, but their share of the total assets amounts to only 8 per cent. This is so mainly because of restricted access to private savings. Household deposits are traditionally kept in the Savings Bank, which now holds about 95 per cent of them in its 37 branches.

The credit conditions are generally tight. Real interest rates were strongly negative during the whole of 1992 (cf. chart 4-17, 4-18). Later on, the private commercial banks adjusted their interest rates slowly towards more realistic levels, whereas the commercial branches of Bank of Latvia remained highly unresponsive.

Chart 4-17 Nominal Lending Rates and Inflation, Monthly 1992

- Long term rate
- Short term rate
- Inflation
Monetary policy was aimed at reduction of inflation and currency stabilization. Although nominal credit, the velocity of money circulation and the broad money supply rose (cf. chart 4-19), the real credit conditions were tight because prices rose significantly.
In the fourth quarter of 1992 the Bank of Latvia changed its discount rate from 80 to 120 per cent per annum but this did not have any impact on commercial banks policy. Commercial banks did not follow suit, so the real interest rates on deposits remained negative.

The foreign exchange department of the Bank of Latvia bears the responsibility for exchange rate stability and foreign market policy. For the Latvian (small open) economy the institutional setting of the exchange rates is of great importance. The currency unit until May 1992 was the Soviet rouble. Then, due to a cash shortage which developed in the second quarter of 1992, a new currency was introduced - the Latvian rouble (LVR). It came into circulation as a supplementary currency at par with the Soviet rouble. By decision of Latvian authorities from July 20, 1992, the LVR became the only legal tender in Latvia. Later, in March 1993, the introduction of a new national currency was begun - the Lats. The rate of conversion was 1 to 200 in favour of the Lats. The currency reform proceeded gradually, such that now two currencies are in circulation - the LVR and the Lats. Convertible currencies are also allowed for transactions, although by ruling of the Monetary Reform Committee from June 28 all prices must be quoted in Lats only.

The exchange rate regime for the Latvian currency (LVR and Lats) is floating. The Bank of Latvia announces daily buying and selling rates against the SDR valuation basket currencies* and the Estonian kroon. In 1992 the Bank of Latvia (BOL) had four different exchange rates: the commercial rate, the auction rate, the market rate and an accounting rate. Additionally, until the end of 1991 BOL quoted the official exchange rate which was set in Moscow.

The foreign exchange market is organized among BOL, a few commercial banks and one private company PAREX, which specializes in trading and lending foreign currencies. Actually PAREX is in a dominant position, as it covers about three-quarters of the foreign market operations.

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* SDR Valuations Basket, as of January 1, 1991: U.S. dollar (40%), Deutsche mark (21%), Japanese yen (17%), French franc (11%), pound sterling (11%)
It is clear from Chart 4-21 above that after a few months of relative stability in the third quarter of 1991, the market exchange rate rapidly depreciated in relation to the US dollar. In December 1991 the local currency exchange (selling) rate was about 120 per USD. The process continued in the same direction during the first third of 1992 but at a slower pace. Then in the last months of 1992 the pattern of change became again more
pronounced, reaching in October 6 the point of 191 Lats for USD. But in the beginning of 1993 the Latvian currency sharply appreciated and on March 31 the exchange rate was only 136 Lats to the US dollar. This whole process probably reflects the highly depreciated (undervalued) level of the exchange rate in real terms at the end of 1991. From that time to February 1993 the real exchange rate appreciated about five times. Or in other words average wages rose from USD 10 to USD 55, as measured by market exchange rate. Although it could be a sign of of success in a stabilizing economy, from an other point of view this change reflects a loss in competitiveness. That is why the Bank of Latvia intervened in the foreign exchange market and reduced its discount rate (6.65%, March, '93) in an attempt to moderate the appreciation and keep the Lats on a more desirable level. However, in spite of these measures appreciation continued.

The accounting exchange rate is quoted weekly for hard currencies and is used for valuation of customs and taxation, etc.

The commercial exchange rate is the rate used by the state to buy foreign exchange from the foreign trade companies. It was designed to supply the state budget with "cheaper" hard currency; that is to say, the commercial rate of exchange was overvaluing the Latvian monetary unit. As such a rate would not work within a market economy it was reinforced by a law requiring surrender of 18 to 40 per cent of foreign exchange earnings. Later, this was replaced by a foreign currency tax, but now it is likely to be re-introduced again. The idea is that a part of hard currency earnings are to be surrendered to the state, but based on the market exchange rate.

The auction exchange rate is the one by which transactions are carried out at the Riga and Latvia stock exchanges. These auctions do not attract significant participation and the few traders attending are not interested in transactions but rather in some sort of unexpected gain.

As for the capital account transactions, there are no restrictions on the export and import of foreign currency or Lats. Non-resident individuals may have accounts with Latvian banks in foreign or local currency. Non-resident enterprises are not allowed to hold bank accounts in Latvia.
4.6. Marketable Firms

In the first quarter of 1992 total foreign capital invested in Latvia amounted to USD 120 million. Among the largest foreign investments is a USD 22 million investment by Kellogg Ltd. (Great Britain).

**List of selected investment projects by estimated costs and sectors of the economy:**

**Food Industry and Agriculture:**

<table>
<thead>
<tr>
<th>Company</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elektra Company</td>
<td>Fur Processing and clothing</td>
<td>USD 3 million</td>
</tr>
<tr>
<td>Islise Company</td>
<td>Meat processing and sausage production</td>
<td>USD 5 million</td>
</tr>
<tr>
<td>Prelu Siera Rupnica</td>
<td>Cheese production</td>
<td>USD 8 million</td>
</tr>
<tr>
<td>&quot;Veldze&quot;- non-alcoholic beverage factory</td>
<td>Increase in productions of drinks</td>
<td></td>
</tr>
<tr>
<td>&quot;Malgravis&quot; factory</td>
<td>Production of mineral water in polymeric bottles</td>
<td>18 million bottles annually</td>
</tr>
</tbody>
</table>

**Forestry:**

<table>
<thead>
<tr>
<th>Company</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Baltija&quot;-wood processing factory, Liepaja</td>
<td>Investment in new particle board line</td>
<td>USD 10 million</td>
</tr>
<tr>
<td>The Slokas Pulp and Paper Mill</td>
<td>Investment in machinery</td>
<td>USD 35 million</td>
</tr>
</tbody>
</table>

**Fisheries:**

<table>
<thead>
<tr>
<th>Company</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Fishing, Riga</td>
<td>Reconstruction of five fishing vessels</td>
<td>USD 2 million</td>
</tr>
</tbody>
</table>
**Construction:**

Latvijas Celtiniex, Riga  
Roofing materials, Estimated Cost-USD 0.6 million

"New Company"  
Production of fiberglass insulation materials, Estimated Cost-USD 5 million

**Tourism:**

Rigas Uznémējs, 226001 Riga, phone: 274 557  
20 projects related to tourism

**Enterprises Looking for Co-operation and Investment**

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Address</th>
<th>Phone</th>
</tr>
</thead>
</table>
| Cēsu Alus darītava  
Brewery of Cēsis | Lencu iela 9/11 Cēsis LV-4101 | (7-013-41) 22423, 23529 |
| Daugavpils Piena Kombinats  
(Daugavpils Dairy Manufacturing Group) | Muitas iela 3 Daugavpils LV-5400 | (7-013-54) 38823 |
| ELLAR | Jurkalnes iela 15/25 Riga LV-1041 | (7-0132) 45 93 53, Fax: (7-0132) 61 14 40 |
| Jaunciema Papīra fabrika  
(Jaunciems Paper Mill) | Jaunciema gatve 161 Riga LV-1023 | (7-0132) 34 82 31, 34 83 30 |
Kandavas Radiorupnica A/S
Production of radio-sets, wood-working and food industry. Employees: 650.
Investment-appr. USD 1 million
Address: Jelgavas iela 1 Kandava, LV-3120 Tukuma raj.
Phone: (7-013-31) 31083, Fax: (7-013-31) 31183

Laima
Production of chocolate and chocolate sweets. Employees: 450.
Investment-appr. USD 10-15 million
Address: Meira iela 22 Riga LV-1136
Phone: (7-0132) 37 96 90, 37 22 82, Fax: (+358-49) 34 81 92

List of suggested contact organizations:

Latvian Information Office
Copenhagen, Denmark
Fax: +33-913099

Chamber of Commerce and Industry
21 Brivibas boulv., 226189 Riga
Fax: +0132-37 22 76
Phone: +0132-33 22 05
Arnolds Grosbergs, President

Dept. of Foreign Economic Relations, Council of Ministers
36 Brivibas boulv., 22 61 70 Riga
Fax: +0132-28 45 72
Phone: +0132-28 86 56
Maris Gailis, Director General

Ministry of Finance
Brivibas bulvaris 34, LV-1170
Phone: 28 26 07
The Bank of Latvia
Kr. Valdemara iela 2a, Riga, LV-1010
Phone: (0132) 323-863, 323-473

Riga Commercial Bank
Smilsu iela 6, Riga, LV-1050
Phone: (0132) 32 38 56, 32 39 67
Fax: (0132) 32 34 49
Telex: 161112 BARK

Baltija bank
Aspazijas bulvaris 34, Riga, LV-1050
Phone: (0132) 22 50 24, 21 34 44
Fax: (0132) 22 50 24
Telex: 161858 LAVAL
4.7. Prospects

We must point out the progress of economic reform, but also point out that further intensification of economic reform is necessary. The rate of inflation was substantially reduced thanks to the monetary and fiscal measures. The most problematic area is the implementation of structural policy towards the business sector, and the clumsiness of the inconsistent banking system.

In the four quadrant diagram* below we summarise the past values and future expectations for some of the basic economic indicators:

* See footnote on page 40
5. Lithuania - Land, Population, Political System and Language

The Republic of Lithuania is situated on the eastern coast of the Baltic Sea. In the north Lithuania borders on Latvia, in the east and south on Belorussia, in the southwest on Poland and Russia. Lithuania has an area of 65,200 km\(^2\) with 99 km of coast line. In 1990 Lithuania's population was 3.7 million, with a density of 56 persons per square kilometre. The capital of Lithuania is Vilnius with about 600,000 inhabitants.

The official language is Lithuanian (since 1989). It belongs to the Baltic group of the Indo-European language family. Lithuanians are the predominant ethnic group constituting about 80 per cent of the population, followed by Russians -- 10 percent, Poles -- 7 percent, Belarussians -- 2 percent, and others. The religion is mostly Roman Catholic, with a minority of Russian Orthodox Church followers and Evangelical Lutherans.

The climate of Lithuania is transitional between maritime and continental. The mean temperature in January is -4.9° C and in July 17° C.

Lithuania does not have abundant mineral resources. It does however, have deposits of limestone, clay, quartz sand, and peat.

In 1944 Lithuania was occupied by the Soviet army. On March 11, 1990, Lithuania declared the re-establishment of its independence. The general elections of 1992 led to the formation of a new government by the Lithuanian Democratic Labour Party (LDLP). The current President of the Republic of Lithuania is Mr. Brazauskas, leader of the LDLP.

5.1. Output

Following the decline in economic activity and the disruption of trade among the states of the ex-Soviet Union, output substantially decreased (cf. chart 5-1). It was estimated that in 1990 net material product fell by 5 per cent, followed by a 13 per cent negative movement of GDP in 1991. Real GDP growth in 1992 was also negative and reached the point of 35 per cent less than in 1991 (cf. chart 5-2). This state of affairs obviously suggests that the new beginning will be difficult. After all, it is not easy for new economic relations to be established in a country where comparative costs and locational advantages used to be of little significance.

In the industrial sector the shortage of supply was not so prominent in 1991 because enterprises drew on their inventories and because there were favourable terms of trade.
Lithuania (like the other Baltic states) enjoyed temporary terms-of-trade improvement, having implemented a liberal price system faster than Russia. Furthermore, being a member of the rouble zone, the country expanded its money supply by credits in roubles and benefited at the expense of Russia. The Lithuanian trade balance with Russia was strongly negative but actually this turned out to be an advantage because all the roubles necessary to cover the deficit could be created by the Lithuanian central bank.

Chart 5-1 GDP at Current and Constant Prices, 1980-92

Chart 5-2 GDP Real Growth Rate, 1981-92, Percent
5.2. Monetary and Fiscal Conditions

In nominal terms broad money* doubled in 1991 and increased by nearly 1000 per cent in 1992. However, for the same period the stock of money and the net domestic credit were reduced in real terms.

Chart 5-3 Monetary Indicators

![Chart showing monetary indicators]

As seen from Chart 5-3 above, until the first half of 1992, when Moscow alone issued roubles, base money growth was quite within a normal range. During 1991 the money supply rose very slightly and for the first four months of 1992 did not change at all. In May, 1992, a new Lithuanian currency (talonas) was introduced. The supply of the new monetary unit was steadily increased, especially after September 1992 when it became the only legal tender.

It is evident that, even assuming the positive movement in the velocity of money turnover, this situation can not contribute to the existing inflation but will rather curb it. Actually this would be the case if the money supply had not been expanded by other means. The Central Bank of Lithuania (in common with the central banks of the other Baltic countries) exploited the opportunity to expand the supply of money by creating credits in roubles (cf. chart 5-4). Demand deposits at the end of 1992 were six times higher than in the first quarter of 1991. Bearing in mind that during that period economic

* Currency in circulation plus demand deposits plus time deposits.
activity contracted severely, such multiplication of demand deposits inevitably contributed to inflation, created difficulties for trade, and put a strain on the efforts for stabilization of the rouble.

Chart 5-4 Monetary Aggregates

Next we consider the development of interest rates. Their level is substantially below the average rate of inflation. During the time of the Soviet centralized economic system, interest rates did not play an active role. With the transition to a market oriented economy they began to adjust, but too slowly. Until February, 1992, there were interest rate ceilings imposed by the government, setting the highest nominal rate on loans equal to 25 percent. But even after the removal of this restriction the interest rates were well below the inflation rate. The state banks actually supported this situation by keeping their nominal interest rates artificially low (cf. charts 5-5; 5-6). The interest rates of the commercial banks were more realistic, but they have only a 10 percent share of the market for loanable funds. Hence, the outcome was a significant disparity between interest rates at state banks and interest rates at the commercial banks. Another important feature of the interest rate structure (for both state and commercial banks) is that the short-term interest rates exceed the level of the long-term interest rates. Obviously, the short-term interest rates are regarded as abnormally high, and a strong expectation for their future fall exists. Still, the effect of this somewhat unclear interest rate policy could be positive. No matter whether it is done intentionally or more likely not, such interest rate targeting may stimulate the Lithuanian economy. That is to say, if interest rates are set low enough, but above the
level of inflation, they will stimulate investment and consequently output. This would not be the case if conventional wisdom is applied, conceiving high interest rates as stimulating savings, followed by an increase in investment which results in higher output. We should mention at least that it is most important that the prospective investment (profit) rate must be high enough to pay for the high bank rates. In other words, if interest rates are high, a higher proportion of income will be saved, but not necessarily a larger amount.

The Lithuanian financial institutions are still undergoing a process of reform. The transition began at the time of the perestroika movement -- the new Soviet policy initiated by Michael Gorbachev in the late '90s. To this end the replacement of the monobank system with a two-tier banking system has nearly been accomplished. However, other problems still remain to be solved. Most important is the real separation of central banking from commercial banking. According to the regulations, the commercial banks are free to determine their own financial policies. Practically, this is impossible because the state-owned commercial banks control too great a share of the money market. Lending decisions are not entirely based on expected profits. Furthermore, the lack of competition within the financial system makes things worse. However, this last problem could be viewed as the government's approach towards strengthening the banking sector's position.

Or the government allow them to make super-profits, so that the bank's capital is increased.

**Chart 5-5 Short and Long Term Interest Rates - Commercial Banks**

![Chart showing interest rates for different periods: Loans up to 1 month, Loans - 6 months to 1 year, Deposits up to 1 month, Deposits - 6 months to 1 year.](chart.png)
The current banking system consist of the Bank of Lithuania, the State Commercial Bank of Lithuania, the Savings Bank, the Agricultural Bank and twenty other commercial banks.

Table 13 Lithuanian Banking System, 1992

<table>
<thead>
<tr>
<th></th>
<th>Total assets, percent</th>
<th>Total credits, percent</th>
<th>Total deposits, percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank of Lithuania</td>
<td>25.5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>State Commercial Bank</td>
<td>30.6</td>
<td>38.1</td>
<td>44</td>
</tr>
<tr>
<td>Savings Bank</td>
<td>8.6</td>
<td>4.5</td>
<td>15.5</td>
</tr>
<tr>
<td>Agricultural Bank</td>
<td>15.7</td>
<td>35.9</td>
<td>15.6</td>
</tr>
<tr>
<td>Commercial banks</td>
<td>19.6</td>
<td>21.5</td>
<td>26</td>
</tr>
</tbody>
</table>

The Central Bank of Lithuania (BOL) was established in September 8, 1992. It has the authority to determine interest rate policy. The BOL is permitted also to provide credit to the government. However, any such action will require approval from the parliament.

The State Commercial Bank of Lithuania is the largest financial institution (see, Table 12 above) but the quality of its portfolio is uncertain. It has 30 branches the former Bank of Lithuania's branches.
The Savings Bank has 53 branches and collects most of the household deposits. It has about 16 per cent of the total banking deposits. The portfolio of the Savings Bank is of uncertain quality, containing 6.7 billion Russian roubles in the form of claims to Moscow.

The Agricultural Bank has 47 branches and almost 36 per cent of total bank credits. It is specialized mainly in providing credit to state and collective farms. In the past it used to provide subsidized loans to the agricultural sector.

There are 20 commercial banks. Two banks -- the Vilnius Bank and Litimpex Bank are holders of 70 per cent of total commercial bank assets. Few commercial banks are private. In the rest of the cases the majority owners are the state-owned enterprises and the government.

A common problem for the banking system is the inheritance of uncollectible loans. This means that if the banks' bad assets were taken into account, probably most of the banks would have to close. Investors cannot have confidence in a bank set up by an enterprises with the intention of attracting deposits just for the purpose of lending them back to the owners. This is done often because another bank would not lend to such risky businesses.

The fiscal system is also in a process of adaptation. The recent reforms in taxes, expenditure structure, and budgetary procedures have made Lithuania's fiscal system similar to that of the Western countries. The major changes are a reduction of subsidies and an increase in administrative costs -- on the expenditure side, and a fall in the share of direct taxes compensated by a rise in the share of indirect taxes -- on the revenue side. Currently the budgetary system consists of: (i) the national budget, (ii) the social insurance fund, and (iii) privatization funds. The fiscal outcome for the last five years is outlined in the Chart 5-6, below.
Chart 5-6 Balance of Government Fiscal Operations

Notes: The consolidated budget includes the national budget, the social insurance fund and privatization funds. The national budget includes state and local government budgets.

5.3. Exchange Rate Arrangements

The monetary unit of the Republic of Lithuania is the Litas. Since the 25th of July, 1993, it has been the only legal tender in the country. The exchange rate is determined through individual floating.

The Litas have replaced the temporary currency - talonas, which were issued earlier to replace the Soviet rouble. The system of the multiple exchange rates which is now valid is perhaps designed to facilitate different needs and priorities during the period of transition. Whatever the purposes, they can not outweigh the loss of a single criterion for effectiveness. The conditions prevailing now are identical to a sort of rationing and do not allow for a correct evaluation of advantageous resource allocation and competitiveness.

The types of exchange rates are as follows:

1) Market rate - determined by supply and demand on the foreign exchange market; the market consists of 18 commercial banks, authorized to deal with foreign exchange.

2) Auction rate - established at foreign exchange auctions (cf. chart 5-8), organized every two weeks. Individuals and enterprises are allowed to buy and sell foreign
currencies. Non-residents are allowed only to sell foreign currency. There are limits on the banks' open positions. Forward or future contracts are not executed by the banking sector.

**Chart 5-7 Market Exchange Rate**

**Chart 5-8 Exchange Rate - Auction Determined**

3) **Commercial rate** - the rate at which the government buys a part of foreign exchange earnings of the enterprises as specified by law.

4) **Official rate** - the rate at which the Central Bank deals in foreign exchange

5) **Accounting rate** - used for calculations and bookkeeping
6) *Customs rate* - used for the recording of foreign trade transactions.

The foreign currency rates of exchange determined by the auctions are significantly higher than the so-called market exchange rates. For example (cf. charts 5-7; 5-8 above), in December 21, 1992, the auction rate was 424 talonai per 1 US dollar, or about 25 percent higher than the market rate of only 336 talonai per 1 US dollar. Apparently there must be some administrative intervention as the market "clears" without satisfying the highest bidders.

The commercial rate of exchange was maintained at a very low level, e.g., in December 1991 five roubles for one US dollar. However, after having been abolished a few times and again reintroduced the surrender requirement is now reduced to 25 percent of foreign exchange earnings, payable at a market determined rate.

Resident natural and juridical persons are permitted to open foreign exchange accounts, which can be credited and debited without restrictions. As to the availability of financial assets, there are very few assets, and enterprise and bank holdings are actually cash and bank deposits.

Concerning capital mobility - the law regulating foreign direct investment guarantees non-discriminatory national treatment to foreign investors and protects investments against nationalization.

Lithuania's choice of exchange rate regime -- individual floating -- may raise the question whether Lithuania's own exchange rate policy could be superior to, let's say, the Deutschemark leadership. The difficulty consists in the achievement of an appropriate combination between flexibility and stability, which is unique for the relevant economy and directly connected with its present condition and the international economic environment. Simultaneously, if compared with the case of Estonia (fixed rate of exchange regime) where the Deutschemark is used for an anchor (see pp. 27-29), we can not preclude a possible negative outcome. Still, Lithuania's flexible exchange rate is preferable as long as the country has to respond to demand shocks creating unemployment or has to address other differences in performance in comparison to its main trading partners.
5.4. Trade

Lithuania is highly dependent on supplies, particularly energy from the Commonwealth of Independent States (CIS). Its international trade, like those of the other Baltic states, was strongly oriented toward the former Soviet Union (FSU). Approximately 90 per cent of Lithuania's total trade through the last decade was with the FSU. Russia alone accounted for more than 50 per cent of the external trade. Lithuania is a large importer of oil and gas from Russia and exports mainly finished goods and foodstuffs.

In 1991, with the establishment of independence, Lithuania began to experience substantial drops in trade with the FSU. The new market-oriented incentive structure led to disruption of old trade patterns and contributed to output and income decline. The volume of trade between Lithuania and the FSU fell significantly (cf. chart 5-9), with estimated non-fuel imports falling by 25 percent. Throughout 1992, oil imports from Russia fell about 30 percent, and natural gas import was about 40 percent less than in 1991. In an effort to avoid further decline in trade Lithuania signed a significant number of bilateral trade agreements.

Chart 5-9 Trade Balance with the FSU, 1987-1992

These bilateral trade agreements did not solve the trade problems. Actual fulfilment of bilateral intergovernmental agreements fell short of what had been planned. At the same time the difficulties with the payments system, which was ineffective and risky, encouraged increased barter exchange on different levels. It is evident from Charts 5-9 and 5-10 that the 1980s are characterized with deficits in both interstate trade and
foreign trade. In 1991 things changed and the trade balance with the FSU showed a surplus, while the trade balance with the rest of the world was slightly negative. This result was interlinked with the temporary improvement in the terms of trade and a considerably reduced volume of trade.

**Chart 5-10 Foreign Trade Balance, 1987-1992**

Because of these influences, and bearing in mind the general difficulties in obtaining information - unknown historical levels and a rather subjective choice of contemporary exchange rate levels - the significance of the trade balance must not be overvalued.

**Chart 5-11 Imports and Exports, Percent, 1990-1992**
However, during 1992 import prices reached the level of international prices and the terms of trade deteriorated. The estimated figures for the terms of trade are a 40 percent improvement in 1991 and a 60 percent deterioration in 1992, based on the previous year. Although Lithuanian authorities are making serious efforts to increase trade with the West, there attempts are unlikely to bring any change of significant magnitude to overcome the patterns of trade followed for decades (cf. chart 5-11, above). So, in the short run Lithuania must rely mainly on its trade relations with the CIS. As it has now a new independent currency, the establishment of some multilateral payments mechanism probably will be vital for trade expansion.

5.5. Labour Market

By the end of 1992 unemployment was still below 2 percent. Enterprises managed to retain their labour force thanks to price reform that raised the output prices higher than the price level of imported raw materials. In addition, administrative barriers contributed to labour market stability. The state enterprises were not allowed to lay off employees before the end of 1992 and private companies could fire no more than 30 percent of their staff.

Lithuania started to remove price controls in 1991. The process continued gradually through 1992, when the majority of the prices were liberalised (cf. table 13, below).

Table 14. Price Reform and Inflation

<table>
<thead>
<tr>
<th>Year</th>
<th>Price Reform - Stages</th>
<th>Average Inflation - %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1989</td>
<td>- - -</td>
<td>9.7</td>
</tr>
<tr>
<td>1990</td>
<td>Initiated - July, 1990 - most prices still set by regulations</td>
<td>16.1</td>
</tr>
<tr>
<td>1991</td>
<td>February, 1991 - price ceilings still maintained</td>
<td>322</td>
</tr>
<tr>
<td>1992</td>
<td>Majority of the prices are liberalised</td>
<td>1093</td>
</tr>
</tbody>
</table>

At the beginning of 1991 real wages fell (cf. chart 5-12, below), but after the first quarter they steadily increased so that on the average at the end of the year the real wage level was 70 percent higher than on January 1991. This was mainly a result of the government policy forcing the enterprises to raise their wages. The aim of the aggressive wage policy was to increase the local aggregate price levels above those of Russia. As a result Lithuanian consumers and economic agents attained a level of purchasing power
higher than that of Russia and consequently gained an advantage in maintaining their standard of living.

Chart 5-12 Real Wages, Index

At present there are no strong national unions and wage levels are decided separately in each case. However, as the situation could change and wages increase excessively (not in line with labour productivity) the government is considering imposing a temporary income policy.

Chart 5-13 Consumer Price Index
5.6. Trends in Production

The growth rates of output, profits and rates of return during the last decade were relatively stable. In nominal terms the profits moved up very slowly, until the jump of 1991, when they increased more than three times. The similar trend is obtained when constant prices are used, the only distinction being the moderate movement in reverse that occurred from 1990 onwards. Actually, the use of constant prices here is open to question. As profits and prices are simultaneously determined in the process of production, the magnitude of profits in nominal terms, when attempted to be expressed in constant prices, will give somewhat unclear information.

Chart 5-14 Total Profits, 1985-1991

These figures must not be taken too literally. It has to be remembered that most of the commodities produced never got market "approval" and their official prices were quite independent of demand.

For most of the enterprises the present period of transition to a market-oriented economy is a difficult one. Since 1992 the financial situation of the enterprises started to deteriorate notably. Despite the possession of special advantages like ability to manipulate output prices and the lack of hard currency debts, profitability shows signs of decreasing. Lithuanian enterprises do not have to pay for their debts (hard currency) because of the refusal of the Lithuanian government to cover past loans to Moscow.
A large number of enterprises are in a monopolistic position on the local market as well as on the ex-Soviet market and therefore can set market prices.

Chart 5-15 Profits - Industrial Sector, 1985-91

Chart 5-16 Industry Gross Rate of Return*, Per cent

* See Appendix, Profits and Rates of Return
At the same time it must be borne in mind that Lithuanian enterprises were highly integrated with the industry of the former Soviet Union and they still depend heavily on the supply of raw materials from the FSU. This interdependence is very unlikely to change quickly and the hope is that it will not be necessary. Despite the accepted opinion that Lithuania should try to increase trade with the West, this does not mean that trade with Russia and CIS has no future potential.

The general decline in investment has to be dealt with. It is a widespread view that under the conditions of central planning the level of capital accumulation was excessive; therefore the fall in investment now is quite natural. We venture to say that what was excessive was not investment but only the share of it spent on the means of production. Achieving a proper proportion between investment in capital goods and consumer goods is vital for the economy. However, this does not require lowering of the general level of investment.

Perhaps the first thing to start with should be the enhancement of competition. This will improve productivity, reduce costs, and raise the quality of production. Simultaneously, able managers will be of crucial importance. They could create a better organization and get higher efficiency from the already existing equipment.

Chart 5-17 Gross Fixed Investment at Constant Prices

It is worth nothing that, as the rate of profits and real wage rates changed, so did relative prices, and consequently the same quantity of capital represents a different value.
Furthermore, the monetary factors, e.g., rates of interest and wage rates, influence the choice of techniques and the capital structure (different proportions between labour and capital).

The progress in privatization is significant. Large enterprises are sold at auction after 30 percent of their shares have been offered at a discount to the employees. By now, more than 50 percent of the large enterprises are privatized and about 80 percent of the small enterprises have been sold.

The structure of the industrial sector is dominated by the food, light and machine building industries (cf. chart 5-18).

**Chart 5-18 Structure of the Industrial Sector-Output, 1992**

![Chart](image)

In the production of radio-electronics and machine building as well as of some consumer durables, Lithuania used to be a monopolist or in control of a very large share of the respective market (cf. table 14).

**Table 15 Lithuania-Production of selected commodities, 1989**

<table>
<thead>
<tr>
<th>Commodities by type</th>
<th>Tuners for T. V. sets</th>
<th>Fuel injection pumps</th>
<th>Metal cutting machines</th>
<th>Electric motors</th>
<th>Refrigerators</th>
<th>T. V. sets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of total USSR production</td>
<td>90</td>
<td>85</td>
<td>6.6</td>
<td>4.6</td>
<td>5.4</td>
<td>6.2</td>
</tr>
</tbody>
</table>
The share of employment by industries is shown in Chart 5-19, below.

**Chart 5-19 Structure of Industrial Sector-Employment, 1992**

![Pie chart showing the distribution of employment in different sectors.]

**Agriculture**

The agricultural sector provides about a quarter of national output and employs 18 percent of the labour force. Currently the sector is in the process of privatization and restitution. Agricultural production is concentrated on livestock, which accounts for about 70 percent of the total. The main subsectors are meat and milk production. Due to higher prices for foodstuffs and uncertainties associated with privatization, the livestock breeding is contracting, followed by milk and meat production (cf. table 15).

**Table 16 Agriculture Production, 1990-1991**

<table>
<thead>
<tr>
<th>Commodity</th>
<th>1990</th>
<th>1991</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grain (1,000 tons)</td>
<td>3265</td>
<td>3347</td>
</tr>
<tr>
<td>Potatoes (1,000 tons)</td>
<td>1573</td>
<td>1508</td>
</tr>
<tr>
<td>Milk (1,000 tons)</td>
<td>3157</td>
<td>2916</td>
</tr>
<tr>
<td>Eggs (million units)</td>
<td>1272</td>
<td>1235</td>
</tr>
<tr>
<td>Meat (1,000 tons)</td>
<td>530</td>
<td>450</td>
</tr>
</tbody>
</table>

The productivity of Lithuanian agriculture, as in the other Baltic states, is higher than in the FSU but well below the level of the Western countries.
Fisheries

The fishing industry has a potential for future development and improvement. The number and distribution of ships by type is as follow:

<table>
<thead>
<tr>
<th>Ocean fishing fleet</th>
<th>121</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baltic Sea fishing fleet</td>
<td>48</td>
</tr>
<tr>
<td>On-board processing</td>
<td>11</td>
</tr>
<tr>
<td>Transport and other services</td>
<td>21</td>
</tr>
<tr>
<td>Total no. of vessels</td>
<td>201</td>
</tr>
</tbody>
</table>

The total annual catch of fish is about 420,000 tonne, 400,000 tonne of which are ocean fish. The fish processing industry includes 11 plants; the largest (state-owned) situated in Klaipeda has 1200 employees and a capacity of 30 million tins annually.

In general the fishing industry is in difficulties. The fleet needs to be upgraded as well as maintained, and new fishing license agreements (independent of Russia) have to be negotiated.

5.7. Investment Potentials

The Law on Foreign Investments guarantees free repatriation of after-tax profits as well as of the invested capital without restrictions. "If the foreign investment is made before the end of 1993, the profit tax is reduced by 70 percent, that is, to 8.7 from 29 percent, for five years. For another three years, the profit tax is reduced by 50 per cent. If the investment is made between January 1994 and December 1995, profits will be taxed by a rate reduced by 50 percent for six years. These reductions are proportional to the foreign capital invested only and not available for the entire capital investment in a project. Reinvested profits are tax exempt."*

The sectors with a high potential for hard currency exports are: building materials, woodworking, fishing, transport and tourism.

Lithuania can offer a cheap and relatively high skilled labour force. At the same time the labour market is getting more competitive (an increase in unemployment), giving opportunity to the managers to make less constraining decisions.

On the negative side we should mention the inefficiency of many services. For example, bank foreign exchange services are inadequate and the telecommunications

* Exchange Arrangements and Exchange Restrictions, IMF Annual Report 1993
could cause serious troubles. Another deficiency stems from the lack of reliable local suppliers and subcontractors.

5.8. Marketable Firms

The biggest foreign investment ever made in the Baltic states is in Lithuania. Philip Morris (the US tobacco giant) has invested around USD 43 million in a Lithuanian tobacco factory.

List of selected investment projects by estimated costs and sectors of the economy:

**Fisheries:**

<table>
<thead>
<tr>
<th>Project</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trout farming</td>
<td><strong>USD 0.5 million</strong></td>
</tr>
<tr>
<td>Visbaru State Fisheries, Taurage</td>
<td></td>
</tr>
<tr>
<td>Investment in eel farming and breeding equipment</td>
<td><strong>USD 1.2 million</strong></td>
</tr>
<tr>
<td>Imbares Collective Farm, Kretiina</td>
<td></td>
</tr>
<tr>
<td>Investment in eel breeding</td>
<td><strong>USD 1.2 million</strong></td>
</tr>
<tr>
<td>Polar Prawnness Co. Ltd., Klaipeda (Danish-Lithuanian joint venture)</td>
<td></td>
</tr>
<tr>
<td>Investment in fishing vessels and equipment for freezing, filleting and canning of fish.</td>
<td><strong>USD 40 million</strong></td>
</tr>
<tr>
<td>&quot;Kura&quot;, Klaipeda</td>
<td></td>
</tr>
</tbody>
</table>

**Food and Agriculture:**

<table>
<thead>
<tr>
<th>Project</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marijampole State Sugar Refinery</td>
<td><strong>USD 1.1 million</strong></td>
</tr>
<tr>
<td>Estimated cost</td>
<td></td>
</tr>
<tr>
<td>Mazeikiai State Milk Processing Company</td>
<td><strong>USD 3 million</strong></td>
</tr>
<tr>
<td>Estimated cost</td>
<td></td>
</tr>
<tr>
<td>Alytus State Butter Company</td>
<td><strong>USD 3 million</strong></td>
</tr>
<tr>
<td>Estimated cost</td>
<td></td>
</tr>
</tbody>
</table>
Investment projects for enterprises governed by -
Ministry of Agriculture
Gedimino Ave. 19, 2025 Vilnius
Phone: + 0122-625 438

Production of Feta type cheese
Estimated cost - USD 2 million

State Packing plant "Kartonas"
Estimated cost - USD 3.5 million

Complex of enzymatic cheese production
Estimated cost - USD 2.8 million

Wood and wood processing industries:

<table>
<thead>
<tr>
<th>Investment in furniture production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jonavos baldai, Jonava</td>
</tr>
<tr>
<td>Estimated cost - USD 0.7 million</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Envelope producing equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Darbas&quot; factory</td>
</tr>
<tr>
<td>Estimated cost - USD 0.5 million</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Investment in equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaunas Paper Factory, Kaunas</td>
</tr>
<tr>
<td>Estimated cost - USD 4 million</td>
</tr>
</tbody>
</table>

Construction:

<table>
<thead>
<tr>
<th>Vilnius feroconcrete structure plant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated cost - N.A.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alytus Experimental Construction Firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production of chipboard and panels</td>
</tr>
<tr>
<td>Estimated cost - USD 18 million</td>
</tr>
</tbody>
</table>
**Tourism:**

<table>
<thead>
<tr>
<th>Hotel in Siauliai</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity-300 guests; four-stars</td>
</tr>
<tr>
<td>Estimated cost-USD 2 million</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>&quot;Respublika&quot; hotel, Kaunas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity-500 guests</td>
</tr>
<tr>
<td>Estimated cost-N.A.</td>
</tr>
</tbody>
</table>

**List of suggested contact organizations:**

<table>
<thead>
<tr>
<th>The Association of Industrialists of Lithuania</th>
</tr>
</thead>
<tbody>
<tr>
<td>T. Vaizganto 2</td>
</tr>
<tr>
<td>232039 Vilnius</td>
</tr>
<tr>
<td>Phone: + 0122-62 59 32</td>
</tr>
<tr>
<td>Fax: + 0122-22 13 57</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The Lithuanian Farmers' Union</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noreikiskes, Kauno Regionas 234324</td>
</tr>
<tr>
<td>Phone: + 0122-29 68 42</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ministry of the Economy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gedimino ave. 38/2</td>
</tr>
<tr>
<td>2600 Vilnius</td>
</tr>
<tr>
<td>Phone: + 0122-62 24 16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ministry of Finance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sermuksniu 6</td>
</tr>
<tr>
<td>2696 Vilnius</td>
</tr>
<tr>
<td>Phone: + 0122-22 74 24; 62 09 19</td>
</tr>
<tr>
<td>Fax: + 0122-22 63 87</td>
</tr>
<tr>
<td>Telex: 261252 FIMA SU</td>
</tr>
</tbody>
</table>
5.9. Prospects

The economic outlook for 1993 is unfavourable. Output could be expected at best to stabilise in 1993 and in 1994 probably recovery could begin. The stabilization of the economy is not completed yet and it could be threatened further if the deterioration of the terms of trade continues.

The reform program is being implemented under difficult conditions, and this puts pressure on government for additional wage increases. If such tendencies are not resisted it will contribute to higher inflation level.

On the positive side we have to note the success of the privatization policy.
6. Summary

We have focused our analysis on the key factors affecting the Baltic states' economic and political outlook. Each country's business environment has been evaluated and some predictions have been made.

We believe that the knowledge of past and expected future growth, employment levels, inflation and technology levels will help in making informed decisions about each country's potential. Additionally we have provided information about economic policy, the banking and financial sectors, the legal and tax systems, etc.

The statistical information, collected from a variety of sources, is organized and restated so as to demonstrate the underlying economic events as clearly as possible. We should mention again that the quality of the statistical data must be treated with caution. Thus the gross national product (GNP) measures are not the aggregate production for a respective year but rather the expected production or productive activity. All goods produced enter the market place at already determined prices and in planned quantities so there is no room for monetary or quantitative adjustments depending on more or less demand. Now, it is clear that excess inventories of consumer and producer goods, i.e., which nobody needs or wants, can not be counted as real wealth. Equally or even more important is the overestimation stemming from the high level of unfinished construction which must be considered as partial or total destruction of capital. While every effort have been made to include all up-to-date information, the rapidly changing events and "publication lag" could place some limitations on the information provided in this paper.

We hope that the chosen form of presentation is compact and gives the opportunity for easy comparison between the different countries.

However, any economic system is a complex phenomenon which is impossible to be reduced to mathematical calculations. This fact is certainly valid for the Baltic states, which are now in an extraordinary state of transition. While the previous performance gives some insight into the economic developments in these states, it should not be projected uncritically to forecast the future.

Any summary of the analysis of all the individual countries is a complicated matter; there is always a potential risk for those having the responsibility for managing money to rely too much on the projection of the data. However, the experience of transformation up to 1994 shows some common features. The Baltic states suffered a sharp fall in output, the privatization and the restructuring processes of their state enterprises are slow, and the legal institutions necessary to facilitate market economy requirements are still in the process of development. At the same time, there has been reasonable success in
macroeconomic stabilization, price liberalization and the growth of exports to the Western countries.

From a political point of view, we may say that in the long run the Baltic region has the opportunity of changing from a still problematic to a prosperous area. The process is already under way, but what will happen in the more immediate future depends on the strength of the political leaders and on the feasibility of their programs.

Probably some of the main reasons for the present economic state of the Baltic region countries are: i) poor investment decisions, ii) one-sided, extensive development of the economic system, iii) barriers to technological progress.

We believe that all these problems could be solved by an intelligent investment strategy. Any able investor with some insight into the matter and imagination in his method of approach could benefit from such an undertaking.
Appendix
<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Total (weighting)</th>
<th>Economic Performance</th>
<th>Political Risk</th>
<th>Debt Indicators</th>
<th>Access to Bank Lending</th>
<th>Access to short-term Finance</th>
<th>Access to Capital Markets</th>
<th>Discount or Forfeiting</th>
<th>Credit Ratings</th>
<th>Debt in Default or Rescheduled</th>
</tr>
</thead>
<tbody>
<tr>
<td>117</td>
<td>Estonia</td>
<td>100</td>
<td>10</td>
<td>20</td>
<td>10</td>
<td>10</td>
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<td>10</td>
<td>10</td>
<td>10</td>
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<tr>
<td>118</td>
<td>Lithuania</td>
<td>24.05</td>
<td>2.3</td>
<td>8.9</td>
<td>0</td>
<td>6</td>
<td>2</td>
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<tr>
<td>123</td>
<td>Latvia</td>
<td>23</td>
<td>2.2</td>
<td>7.8</td>
<td>0</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>5</td>
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</tbody>
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EUROMONEY Country Risk Rankings, Sept. 1992
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>Iceland</td>
<td>84.72</td>
<td>18.76</td>
<td>19.95</td>
<td>10</td>
<td>10</td>
<td>6.15</td>
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<td>5</td>
<td>5</td>
<td>5</td>
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<tr>
<td>122</td>
<td>Estonia</td>
<td>28.94</td>
<td>10.46</td>
<td>7.11</td>
<td>0</td>
<td>8.77</td>
<td>0</td>
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<td>0.5</td>
<td>1.5</td>
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<tr>
<td>130</td>
<td>Lithuania</td>
<td>26.55</td>
<td>8.33</td>
<td>7.45</td>
<td>0</td>
<td>8.77</td>
<td>0</td>
<td>0</td>
<td>0.5</td>
<td>1.5</td>
<td>0</td>
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<tr>
<td>132</td>
<td>Latvia</td>
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<td>8.85</td>
<td>6.38</td>
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<td>0</td>
<td>0</td>
<td>0.5</td>
<td>1.5</td>
<td>0</td>
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<tr>
<td>137</td>
<td>Russia</td>
<td>24.69</td>
<td>7.49</td>
<td>7.18</td>
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<td>8.77</td>
<td>0</td>
<td>0</td>
<td>0.25</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

*EUROMONEY*  Country Risk Rankings, Sept. 1993
Efficient Portfolio - We could say that a portfolio is efficient if, for its rate of return, no Portfolio exists with a lower variance of the rate of return.

Present Value – The concept used in economics for evaluation of the future cost or receipts. If we have to decide whether or not to invest certain capital with expected net return $\pi(t)$, for the future period $t$ to $T$, we should compare the stream of the future earnings (profit from investment) with the cost of undertaking the investment, or calculate the present value of the stream. The difficulty is in forecasting $\pi(t)$ and deciding the level of the interest rate - $r$. So in a more formal way we could write:

$$e^{-n}\pi(t)dt$$, which is the contribution to the earnings within the period $t, t + dt$

$$P.V. = \int_{0}^{T} e^{-n}\pi(t)dt$$, all contributions summarised together

If $\pi(t)$ is a constant, then

$$\int_{0}^{T} e^{-n}\pi dt$$

$$= \pi \int_{0}^{T} e^{-n} dt$$

$$= \pi \left[ -\frac{1}{r} e^{-n} \right]_{0}^{T}$$

$$= \frac{\pi}{r} (1 - e^{-n})$$

Profits and Rates of Return

"The links between profits and economic performance are complicated and difficult to establish empirically. This is because both economic and accounting
definitions of profit cover heterogeneous phenomena and are calculated as residual."
James H. Chan-Lee and Helen Sutch, OECD Economic Studies, No. 5 Autumn 1985

Profits could be defined as the gross operating surplus as a percentage of gross
value added, and rates of return could be obtained as a ratio of profits to the fixed
assets plus those share of current assets, which represents raw materials. This method
of defining the rates of return differs from the conventional one used by the
industrialized Western countries. The difference is mainly due to the second part of the
denominator, namely the share of "materials" within current assets. We have to use
the rates of return calculated in such a way because the statistical data are organized
within this framework, based on Marx's concept for capital.*

Or it could be written: \[ R = \frac{P}{F+C}, \]
where:
- \( R \) - rate of return
- \( P \) - profits
- \( F \) - fixed assets
- \( C \) - the "material" share of the current assets, equal to the value of current assets
  minus the value of labour

Practically, the difference consists in the greater value of the denominator
compared to the one used normally by the Western countries, everything else being the
same. Within mainstream economics the rate of return is accepted as equal to the profit
divided by the stock of fixed reproducible assets:

\[ R = \frac{P}{K}, \]
where:
- \( R \) - rate of return
- \( P \) - profits
- \( K \) - gross stock of fixed reproducible assets

As \( K = F \) and usually \( C > 0 \), the rate of return calculated by the first method will
be smaller than the rate of return obtained by the second, ceteris paribus.

Once having obtained the rate of return \( R \), next we could establish its relation to
the investment process. In practice if one contemplates future investment he/she would
probably compare the expected profitability with the cost of capital. It is difficult to

*For more detailed discussion on this topic see Glossary, Capital Theory, p 110.
measure capital, and strictly speaking the use of the concept of capital generally, without interest and wages being simultaneously introduced in the picture, does not make much sense. However, for practical purposes the real interest rate is a good enough estimator of its cost.

Now let us put together the rate of return and the real interest rate. We can do this in the diagram below:

Here the relationship between profitability and the interest rate is expressed through the valuation ratio (Tobin's q). Or when the valuation ratio is greater than unity, it would be profitable to invest in physical capital and when the valuation ratio is less than unity, the returns on financial capital (assets) are greater than on physical capital.
Glossary
Value - Labour-Cost Theory and the Theory of Diminishing Marginal Utility

Labour-cost theory

Marx's analysis of value begins with his concept of "commodity". It is his insight that a commodity is "an object with a dual character, possessing both use-value and exchange-value".¹ The substance of value is labour, and labour has a dual character: "On the one hand, all labour is an expenditure of human labour power, in the physiological sense, and it is in this quality of being equal, or abstract, human labour that it forms the value [exchange-value] of commodities. On the other hand, all labour is an expenditure of human labour power in a particular form and with a definite aim, and it is in this quality of being concrete useful labour that it produces use-values."²

Or in a more formal and perhaps neater way:

\[ K_i = R_i T_i \]

\[ R_i = \frac{dK_i}{dT_i} \]

\[ K_i = \int R_i(T_i) dT_i \]

¹Karl Marx, Capital, Vol. 1, Chapter 1, p.131, Penguin books, 1979, London
²Karl Marx, Capital, Vol. 1, Chapter 1, p.137, Penguin books, 1979, London
(4) \[ L_i = I_i T_i \], the interdependence between abstract labour expenditure and its result, value (exchange-value)

(5) \[ I_i = \frac{dL_i}{dT_i} \], intensity of (abstract) labour as derivative or the ratio between the increment of the value (exchange-value) and the increment of labour expenditure at a given moment of time

(6) \[ L_i = \int I_i(T_i) dT_i \], the value (exchange-value) itself is integral of the intensity of (abstract) labour, where \( i \in F \)

(7) \[ W_i = \frac{dL_i}{dK_i} \], the value as a whole, i.e. (exchange-value "+" use-value)* \( W \) could be conceived as the ratio or their differentials

So, we have defined the value of the commodity, which appears in the process of circulation as the price \( (P) \), i.e., what is important to note - commodities enter the market place with prices already determined as well as (gold) money with its own value. However, it could be argued that nowadays paper money derives its value from the time of the gold standard. After everything is said and done we could write the following relation:

(8) \[ P_i = W_i \frac{1}{W_g} \], where \( W_g \) is the value of gold per ounce measured in working hours

(9) \[ W_1 : W_2 : W_3 \ldots W_i = P_1 : P_2 : P_3 \ldots P_i \], or the prices of the commodities are proportional to the value of the commodities, or to the expended labour

Or to be precise - Value is measured by socially necessary labour time. Of course price and magnitude of value could differ in the particular circumstances of the exchange, but on the average the condition holds. Or the relation is not deterministic but rather a probabilistic one, which could be indicated by including one more operator, let say \( \delta_i \).

*This must not be conceived as a mathematical operation, but rather as two complementary parts brought together, within the concept of labour-cost theory.
Then, from equation (8) we have:

\[ P_i = (1 + \delta_i) \frac{W_i}{W_i^s}, \quad \text{so if} \quad \delta_i = 0 \rightarrow P_i = W_i \]

\[ \delta_i > 0 \rightarrow P_i > W_i \]

\[ \delta_i < 0 \rightarrow P_i < W_i \]

Or in dynamics it will be:

\[ \frac{dP_i(t)}{dt} = (1 + \delta_i) \left[ \frac{dW_i(t)}{dt} W_i^{-1}(t) + W_i(t) \frac{dW_i^{-1}(t)}{dt} \right] + \frac{d\delta_i(t)}{dt} W_i(t) W_i^{-1}(t), \]

where \( \frac{d\delta_i(t)}{dt} \) represents the rate of divergence between prices and values.

### The Law of Diminishing Marginal Utility

Within the framework of labour-cost theory "utility" (use-value) is a prerequisite of value. Here in the theory of diminishing marginal utility it is a decisive factor in price determination.

Utility is the satisfaction derived from an activity, particularly consumption. The general utility function can be expressed in the form \( U = f(x), x \in M \), where \( M \) is the quantity of goods and services consumed. As utility is a subjective valuation: "... there is no 'absolute' sense in which utility can be said to be 'measurable'. Indeed, it is doubtful that in this sense the question whether utility is measurable is a meaningful question." The concept of marginal utility is well described by Samuelson: "Because ... market prices reflect the relative economic value of diverse goods and services. That is, the relative prices of different goods reflect how much consumers value their last (or marginal) units of consumption of these goods. Thus the choice of market prices as weights for different goods is not arbitrary: in a smoothly functioning market economy these weights reflect the relative satisfactions that consumers receive from each good." Simultaneously with the concept of marginal utility was developed the concept of diminishing marginal utility. According to the theory of diminishing marginal utility the main factor in price determination is the addition to utility

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3Milton Friedman, *Price Theory A Provisional Text*, University of Chicago, 1968, p.73.

4Jeremy Bentham, (1748-1832) is usually credited with the introduction of this idea into economics.

from having a little more of a given good. "It is the rate of change in total utility per unit change in quantity and is not the utility of the marginal unit."\(^6\)

Or expressed mathematically:

Let

\[ H \] - total utility of all goods

\[ Y_a, Y_b, Y_c, Y_j \] - quantity of the goods - \(a, b, c, \ldots, j\)

\[ p_a, p_b, p_c, \ldots, p_j \] - prices of the goods - \(a, b, c, \ldots, j\)

Then

\[(i) \quad \kappa_a = \frac{\partial H}{\partial Y_a}; \kappa_b = \frac{\partial H}{\partial Y_b}; \kappa_c = \frac{\partial H}{\partial Y_c}; \kappa_j = \frac{\partial H}{\partial Y_j}, \] the ratios between the partial differential of total utility and the increment of the quantity of goods

Or \(\kappa_a, \kappa_b, \kappa_c, \ldots, \kappa_j\) are the marginal utilities of the goods \(a, b, c, \ldots, j\), and as the market price is the weight for consumer satisfaction it follows:

\[(ii) \quad \frac{\kappa_a}{p_a} = \frac{\kappa_b}{p_b} = \frac{\kappa_c}{p_c} = \ldots = \frac{\kappa_j}{p_j}\]

\[(iii) \quad \kappa_a : \kappa_b : \kappa_c : \ldots : \kappa_j = p_a : p_b : p_c : \ldots : p_j\] , so we arrive at the conclusion that the marginal utilities are proportional to the prices.

We should mention that the same result could be derived in a different way (Pareto's) free of utilitarian assumptions.\(^7\) In his theory Pareto does not have to "measure" consumer desires but just to obtain their scale of preferences. This is to say that for his theory to work it is enough to know that a customer prefers one particular combination of goods over another, without having to "calculate" by how much. In brief what Pareto did was to combine the indiffERENCE curves and price lines and study their relations. What are indiffERENCE curves?

(The following explanation is based on John Hicks [1991])

\(^6\) Milton Friedman, *Price Theory A Provisional Text*, University of Chicago, 1968, p.19.

Let us consider the three-dimensional diagram (Fig. 1) below, with the quantity of two goods A and B measured on the axes x and y respectively, and utility U derived from any such combination of A and B measured on the ordinate z. Joining the tops of all ordinates, we get the utility plane. Now for convenience we could reduce this three-dimensional diagram to a two-dimensional one. Again the quantities of A and B should be measured on the x and y axes, but we should "copy" the contour from the utility plane onto the horizontal diagram. So we get the indifference curves (Fig. 2). Or these are the loci of points which correspond to the same total utility.

Is this the "right" shape of the indifference curves? If the marginal utility of each commodity is positive the indifference curves should have a downward slope as in fig. 2 above. This follows from the necessity to compensate for any increase in A with a decrease in B and vice versa. This is the only possible way to stay on the same indifference curve. If any increase in the quantity of A is not followed by a compensatory
movement (decrease) in $B$ we will go to higher indifference curve. The same will happen if the quantity of $B$ increases and $A$ remains unchanged. Now let us suppose that a given consumer will spend all his money for only two goods - $A$ and $B$ (cf. fig. 3).

Fig. 3

Let's say that the prices of the commodities $A$ and $B$ are given on the market. So if our consumer decides to spend all his/her money on product $A$ he/she could buy the quantity represented by $OM$ and if he/she decides instead to spend everything on $B$ the quantity obtained would be represented by $ON$. Then any point on $MN$ gives a pair of quantities of the two commodities attainable under different quantity combinations and the same money income. Now we could pass an indifference curve through any point of $MN$ (cf. fig. 4). As a result the line $MN$ will intersect them; thus such a point would not be one of equilibrium. The consumer would not maximize his/her utility, as he/she could get onto a
higher indifference curve - get more utility, by moving along MN in either direction. Only when the indifference curve just touches the line MN is the utility maximized. The consumer could not get more utility, if by moving in one or another direction he/she would move to a lower indifference curve. Or at point E - the point of tangency between the indifference curve and the price line the utility will be maximized. Thus we once again arrive at the conclusion of the proportionality between marginal utility and prices.

**Capital - Capital Theory**

This is one of the most contentious areas of debate in economics. Its subject is price determination in the *process of reproduction* as well as the explanation of what determines the distribution of income between wages and profits.

Because the analytical issues in capital theory are unresolved there are problems (unsecured foundation) for other parts of economic theory and especially for economic policy. As any practical action or recommendation is based on the way in which the economy is conceived to work, one can not avoid the analytical difficulties involved in capital theory.

The two main approaches to a theory of distribution are:

1) the concept of social surplus - *French Physiocrats, A. Smith, D. Ricardo, K. Marx, P. Sraffa*

2) the neo-classical (marginalist) approach - *W. Jevons, L. Walras, E. von Böhm-Bawerk, J. Clark, K. Wicksell*
The Marxian surplus approach:

Capital is not a thing but a set of social relations.

\[
\text{Industrial capital} = \text{Constant capital (C)} + \text{Variable capital (V)}
\]

*Constant capital* is that part of capital which is invested in the means of production and *Variable Capital* is the capital invested in wages. Constant capital transfers its value to the products without any quantitative change, as the value transferred by variable capital is higher than its own value. How is this possible? It is because the labour force is capable of producing more value than its own value. As the wages\(^8\) paid to the labourer or the value of goods and services he/she can buy, have nothing to do with the amount of labour actually expended, the entrepreneur pays for *labour force* and gets for that price *labour*. Or it could be said that the entrepreneur is paying for "ability" and gets instead the "results".

Having this in mind we could present the value of a commodity in a somewhat different way:

\[
\text{Value} = \text{Means of production} + \text{Labour} + \text{Surplus value}
\]

The value of commodity (\(W\)) is equal to the sum of the loss (depreciation) of the necessary means of production (\(C\)), the amount of labour necessary for production (\(V\)), and the value created by surplus labour - surplus value (\(m\)). *Surplus labour* is the labour expended over the value of commodities which workers can buy with their wages. This unpaid labour is the source of profit.

\(^8\)We shall mention that Keynes agrees with the classical school, that wages equal the marginal product of labour, but disagrees with their second postulate, that real wage is equal to the marginal disutility of the existing volume of employment. (see, Keynes, J., 1936)
Now let us look at the industrial capital composition:

![Diagram of industrial capital composition]

*Monetary capital, productive capital and commodity capital* are just the three forms of appearance of *industrial capital*. Not to be confused, only productive capital divides into fixed and circulating capital. Fixed capital is totally utilised in the production process, but partially transfers its value to the products. Circulating capital is totally utilised in the production process and transfers its value within a single production process.

Finally the central message: the rate of profit \( r \) is positive only if surplus labour has been expanded, so surplus the value \( m \) has been obtained. Or in other words, without the exploitation of workers there is no profit.

\[
r = \frac{m}{c + v}
\]
The neo-classical approach:

i) Financial (portfolio) conception of capital

ii) Physical (productive) conception of capital

The production process is carried out by the factors of production - capital, labour and land. These factors of production are substitutable, i.e. labour could be substituted by means of production and vice versa. This is possible because any given commodity can be produced in a different way and because consumers may choose between different goods.

Distribution is explained through the forces of demand and supply. Profit is viewed as remuneration to the owner of capital, due to the higher productiveness of the indirect production process (using the means of production), compared to production based on labour only.
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