

**ECONOMIC TRANSFORMATION IN POLAND AND UKRAINE:  
THE CASE OF FOREIGN TRADE**

Tadeusz Kowalski  
University of Economics and Business Poznań, Poland  
Tadeusz Kowalski [tadeusz.kowalski@ue.poznan.pl](mailto:tadeusz.kowalski@ue.poznan.pl)

And

Yochanan Shachmurove  
The City College, The Graduate Program and University Center of the City University of  
New York and  
Case Fellow  
[yshachmurove@ccny.cuny.edu](mailto:yshachmurove@ccny.cuny.edu)

**Abstract**

This presents and assesses the market transformation of Poland and Ukraine. In 1989, in terms of GDP per capita Poland and Ukraine were at the same level. The paper aims to ascertain why these two economies are significantly different after 26 years. The main focus is on trade patterns. At the outset of market reforms, foreign trade reflected the economic structure inherited from the centrally planned era. With the passing of time, both the commodity and geographical structure of trade was influenced by different economic and institutional changes in Ukraine and Poland.

Keywords: Poland, Ukraine, International Trade, Economic Transformation

JEL Classifications: E00, E6, F00, F1, F4, F6, O24, O43, 057, P2, P33, P52

We thank Michael Sternbach for excellence research assistance.

## **ECONOMIC TRANSFORMATION IN POLAND AND UKRAINE: THE CASE OF FOREIGN TRADE**

### Introduction

An evaluation of the transition process between the years 1989-2015 and its economic consequences requires a coherent theoretical and methodological context [Dąbrowski 1995; Balcerowicz 1997; Kornai 2000; Williamson 2000, pp. 595-613; Paldam and Gundlach 2008, pp. 65-100]. For this reason, the paper divides the transformation process into two phases:

- a phase of stabilization and implementation of fundamental institutional changes
- a phase of development and modification of solutions applied in the initial period of the transition, accordingly to the specific needs and challenges of a particular country

In the first phase of transition, the initial macroeconomic conditions were of the utmost importance. This is because there was no normative theory that encompassed the transition from a centrally planned economy to a market driven one. This was followed by structural features of the individual economies including availability of resources and structure of GDP creation. In the second phase of transition, qualitative factors started to prevail. These factors include consistency and determination in the process of pro-market reform, the privatization of the economy, and the improvement of the business environment quality or innovation ability [Kowalski, Letza and Wihlborg 2010]. Those factors, together with objective structural barriers, have both influenced the economic growth rate achieved at the time and the scale of the improvement of living standards [Gylfason and Hochreiter 2009; Kowalski 2013].

The structure of the article is the following: Section 1 presents the general framework of the stabilization and growth phases, with special attention paid to macroeconomic context, institutional setup, and competitiveness determinants of the economies. Successive sections

present an empirical comparative analysis of the transformation process. Section 2 is devoted to the analysis of selected growth factors and barriers of development. It identifies the reasons for differentiation between transition processes and their present results in the examined countries. Section 3 focuses on development of trade in Poland and Ukraine. Section 4 summarizes outcomes of transformation in terms of GDP per capita. The analysis is concluded with closing remarks.

## **1. The First Phase of the Transformation Process**

### **1.1. Initial Conditions in the Ukraine and Poland**

Poland, in 1989, faced a combination of failures that led to a catastrophic macroeconomic situation. Since it was a centrally planned economy, it was cut off from market-based international relations. Furthermore, the centrally planned economy of old was no longer functional and the new mechanism, with private sector GDP creation, was not yet functional. Consequently, Poland was not able to service its foreign debt [Kowalski 2013]. A similar disadvantageous situation occurred in Ukraine. This situation was a direct result of the links with other republics of the then USSR and the disintegrating economy of the Russian Federation, which were all falling into a deep economic crisis. However, the biggest problem for the Ukrainian economy and society was the heritage of the Soviet system, including destruction of social capital and the lack of traditions, experiences, and institutions that were indispensable for the appropriate functioning of a market economy.

### **1.2. Stabilization Programs and the First Reactions of the Economies**

The particular stabilization programs were answers to the specific situation of each country. Stabilization programs were each designed to combat a specific problem (Table 1). All the stabilization programs had some common features. For example, they all aimed to reestablish monetary policy, reduce inflation, devalue exchange rates, introduce internal convertible currencies, limit external currency convertibility and implement hard budgets for state owned firms [Blanchard 1994].

**Table 1:** Stabilization Programs and Major Initial Conditions of the Transformation in Ukraine and Poland

Specification	Ukraine	Poland
Launching the program	Nov. 1994	January 1990
Monetary policy	Restrictive	Restrictive
Fiscal policy	Restrictive	Restrictive
Incomes and wage rate policy	Mild	Restrictive
Exchange rate policy	Devaluation	Devaluation
Nominal anchor	Managed floating rate	Fixed exchange rate and wage control
Real anchor	Money supply and interest rate	Interest rate
Internal convertibility (for companies)	Yes	Yes
Internal convertibility (for households)	Restricted	Yes
External convertibility	Very restricted	Restricted
Main privatization method	Coupon	Direct
Date of starting privatization	1995	1990
Launching the stock exchange	1991	1991
Lowest level of GDP year	1998	1991
Scale of decrease (1989=100)	36.6	82.2

*Source:* Kowalski and Polowczyk [2012] based on national data and Gros and Steinherr [2004]; Hochreiter [1999]; Bennett et al. [2003].

The Polish program of 1990 was the first comprehensive attempt to stabilize the macroeconomic conditions and then create sound conditions for sustainable development of a market economy. The first attempts of reforms in Ukraine were made in the year 1992. However, those reforms were partial and actions of the authorities lacked consistency. Because

of the worsening economic situation in Ukraine in 1994, another attempt at regulating the monetary, fiscal and exchange rate policies was made (Table 1). Additional monetary reform was implemented in 1996 [Barisitz 1999]. These actions also turned out to also be ineffective, and Ukraine can be viewed as an example of a reform failure caused by internal divisions and an inability of political parties to effectively cooperate.

The course of the transformational recession differed in Poland and Ukraine. The Polish recession, measured as the decline in GDP and industrial production, was the mildest among all Central and Eastern European Countries (CEC). The first increase in GDP occurred in the year 1992. The most difficult economic situation of Post-Soviet states took place in Ukraine. In Ukraine, the change in GDP from 1989 to 1998 was down 36.6%. Gradually, in the course of the macroeconomic stabilization process, the prime problem shifted from inflation to structural unemployment. This phenomenon influenced social perception of the benefits of a free market economy. Additionally it led to increased income and wealth inequalities.

## **2. The Phase of Economic Growth**

The new economic environment and the changing social conditions in Poland and Ukraine caused significant population changes. During the years 1990 to 2005, Poland experienced population growth, whereas Ukraine saw a dramatic decrease in population size. Ukraine showed very strong negative dynamics of population growth, amounting to minus 0.6 percentage points. This population trend resulting from the decline in birth rate and emigration primarily by the young laborers, constituted a major challenge to economic policy [Schreiner 2008; World Development Indicators (WDI) data]. Moreover, the population trend also altered the age structure of Ukraine and lowered domestic labor supply.

In Poland the average life expectancy increased, for Poland increased its average life expectancy to 77 years in 2013 from 71 in 1981, compared to Ukraine's increase to 71 from 69.

The countries analyzed were characterized by a relatively high level of primary school enrollment. This aspect of public spending was not significantly affected in a negative manner, even during the transformational recession. Secondary school enrollment in Poland in 1991 continued at 75.9%. In 2006, pupils in Poland continued this level of enrollment at 93.6%. The situation in the field of tertiary education in the analyzed countries was highly differentiated. By the end of the analyzed period Poland's ratio reached a level of 66% (improved by 44%).

Ukraine (73%) achieved the highest tertiary school enrollment ratio. It should be noted that Poland improved considerably the availability of this level of education, mainly through the development of private education, focusing on the humanities and social sciences, rather than technical specializations. The achieved level of tertiary education offered in Poland was similar to countries with higher income *per capita*, and the level offered in Ukraine were even higher. The evolution of human capital and its general condition achieved by the end of the examined period in both countries under investigation was good. Human capital is an important element of the set of comparative advantages of the European countries in transition. Furthermore, real minimum wage increased dramatically.

Investments, particularly in fixed assets, are the main driving factor of the increase in physical capital *per capita*. During the first phase of the transition process, the share of total investment in GDP fluctuated significantly. For most of the analyzed period, Poland had the lowest share of total investment in GDP among the Central European economies. A relatively low share of accumulation also occurred in the Ukraine.

An important element in the reconstruction and modernization of the economies was the inflow of foreign direct investment (FDI). FDI supplemented the domestic capabilities to invest.

During the years 1993-2006, the average scale of net FDI in Poland amounted to 3.4% of GDP and was higher than in the Ukraine (2.5%) [World Bank 2008]. FDI inflow was a crucial element in the reintegration of countries with European and global markets. FDI affected both the supply side and the demand side of both Ukraine and Poland.

### **3. Foreign Trade Liberalization**

#### 3.1. The Scope of Economies Openness

As noted, the liberalization of foreign trade was a common characteristic of stabilization programs implemented in the analyzed countries. Already on the threshold of a market transformation, the importance of exports and imports of goods and services was differentiated (Table 2). Largely, it was a function of the domestic market size, the availability

Table 2: Total Polish exports and imports as percent of Ukraine's

Year	Exports	Imports
1996	1.69393784	2.10732278



1997	1.80768634	2.46761154
1998	2.23096642	3.20277608
1999	2.36366555	3.87267241
2000	2.12424779	3.44850877
2001	2.1744698	3.13453183
2002	2.24538229	3.19667845
2003	2.2870705	2.91680436
2004	2.25857557	3.04014389
2005	2.61125794	2.81099652
2006	2.85616214	2.79077712
2007	2.81543162	2.7090909
2008	2.56690033	2.46322412
2009	3.44222384	3.29355076
2010	3.05393887	2.86690493
2011	2.75035451	2.53235423
2012	2.6145268	2.26125264
2013	3.21930525	2.67079416

Source: Comtrade

of resources, and the competitive capacity of exports. Table 2 presents total exports and imports for the two countries from 1996 since there is no data for earlier period for Ukraine. The column Poland/Ukraine exports shows that in 1996, the exports by Poland was 69 percent higher than that of Ukraine. By 2013, Poland exported 3.22 times more than Ukraine. Gradually, the structure of foreign trade altered, mainly under the influence of FDI (see Figures 1 and 2).

Exports were very important for small open economies. The following years of the transition process were characterized by a very high volatility in the share of exports in the GDP. This was a result of both changes in the value of the exports and the volatility of GDP dynamics in the countries in transition. The highest variation appeared in the Ukraine. It resulted from a strenuous search for diversification in the geographical structure of exports and the limitation of the dependence upon the market of the former Soviet Union [Kowalski 2013].

In the case of Poland in 2004, the effect of trade creation appeared as an increase in the share of exports in the GDP amounting to 4.2 and 8.3 percentage points respectively. In general, the studied countries significantly increased their ratio of exports to the GDP. Without much error,

the increase in export capacity can be interpreted as evidence of the ability of the analyzed countries to meet strong competition in the Single European Market. The relatively small increase for Ukraine reflects the decline in trade among the former Soviet Republics.

### 3.2. Commodity structure of trade

The evaluation of development of the economies' competitiveness and exports requires the consideration of the effects of innovativeness on the change in the structure of exports, in particular, an analysis of the share of high-technology products in total exports. The low share of high technology products in total exports in the first half of 1990s was characteristic for the other countries of the region. Over time, as a result of FDI commodity structure has been changing significantly. The data clearly indicate that the initial situation of the Ukrainian exports of high technology was better than in Poland and this situation was seen till 2004 (6.11%). In the last years the share of high-technology products in total Ukrainian exports decreased to 3.22% in 2008 (in Poland it reached 5.24%) [World Bank 2008].

Figures 1 and 2 display the total Values if the exports and imports of Poland and Ukraine. As can be seen, in 1996, both exports and imports of Poland and Ukraine were very similar but diverge greatly as time passes. Also, noticeable is the effects of the financial crisis of 2007 - 2009 on the two economies. The figures demonstrate that overall, the Polish economy is much larger in both imports and exports than the Ukrainian. A visible drop is seen in both countries following the 2008 crisis. Note that Ukraine has experienced little recovery while Poland continues to grow.

Figures 3 to 6 show the Polish and Ukrainian exports and imports to their major trade partners. Note that the Polish exports and imports to the OECD and the EU are much larger than to the countries of the former USSR. This is in sharp contrast to Ukraine. Note that since 2006 the Ukrainian exports to the former USSR acced their exports to the OECD and the EU.

Also, note that the Ukrainian imports to the former USSR although declining, are above the imports from the EU and the OECD. It seems that Ukraine is making some progress in diverting their trade to the OECD and the EU, but the shares are around 40 percent versus 60 percent for Poland.

Figures 7 through 10 depict the Polish and Ukrainian Exports and Imports to their major trade partners. Whereas Poland exports above 25 percent of its total exports to Germany, Ukraine exports the most to the Russian Federation at 25 percent. The Polish imports over 20 percent from Germany whereas Ukraine relies heavily on imports from the Russian Federation.

Figure 11 depicts the exports of Poland and Ukraine for the sector: food and live animals chiefly for food sector. Whereas exports for this sector are practically the same in the year 1996, the figure vividly shows that Poland exports in this sector have increased significantly as compared to the Ukrainian exports. Figure 12 shows the imports of Poland and Ukraine for the sector, food and live animals chiefly for food. Poland has increased its imports as its GDP grew.

Figure 13 presents the exports of Poland and Ukraine. Notably, between 1996 until 2005, the exports of the two countries were practically the same. Then, since 2006, the Polish exports dramatically surged, whereas Ukrainian exports has not increased between 2008 until the last year of the data. Observe that the Polish exports were not affected by the Great Depression of 2007 – 2010.

Figure 14 shows that the imports profile of the two countries were similar, but then since the year 2007, the Polish economy was able to import more Sector 1 goods. Figure 15 shows the first sector where Ukraine was able to import more than Poland. Note the sharp drop in both imports and exports following the 2008 crisis.

In Figure 16, both countries have near-identical import values. However, Poland continues to outpace Ukraine in exports. One thing to note here is the sharp recovery by Poland in this

sector following the crisis. Figure 17 presents the imports and exports for Ukraine and Poland for food and live animals chiefly for food, Beverages and tobacco, and Animal and vegetable oils, fats and waxes. In this sector, Ukraine is far superior to Poland in terms of trade value of exports. This sector is the largest advantage Ukraine has over Poland, and the difference is quite large. As for imports, figure 17 shows Poland consistently importing at a greater value, however both countries follow similar patterns.

Figure 18 presents the Exports for Ukraine and Poland for Chemicals and related products . In this sector, Poland holds an advantage in both exports and imports, leading the Ukraine in both categories. Figure 19 exhibits Imports and Exports for Ukraine and Poland for Manufactured goods classified chiefly by materials, Machinery and transport equipment, and Miscellaneous manufactured articles. In this sector, Poland continues to lead the Ukraine. Notice the large drop after the 2008 financial crisis for both imports and exports. After the crisis, growth in both categories matches the pace from before the crisis.

Figure 20 presents the imports and exports for Ukraine and Poland for Manufactured goods classified chiefly by materials, Machinery and transport equipment, and Miscellaneous manufactured articles. There exists a large difference between Poland and the Ukraine in both imports and exports, with Poland consistently importing and exporting more than the Ukraine. It is notable that exports were affected much less by the crisis than imports were.

Figure 21 details the imports and exports for Ukraine and Poland for Manufactured goods classified chiefly by materials, Machinery and transport equipment, and miscellaneous manufactured articles. Poland continues to outperform the Ukraine in imports and exports. Notice again the minimal effect of the crisis, and the quick recovery of this sector.

Figure 22 depicts the imports and exports for Ukraine and Poland for Commodities and transactions not classified elsewhere in the SITC. As can be seen, the Polish exports in this

sector were very erratic throughout the study period. Early on, the Ukraine actually produced more. But in 2004, the Polish economy grew enormously in this sector while the Ukraine's continued at an almost stagnant level.

These issues are going to be further explored in this paper together with a comparative analysis of inflows of Foreign Direct Investment to the two countries and their effects on these economies. The final draft will elaborate on these issues.

#### **4. GDP *per capita* and the Competitive Position as the Measures of the Transformation Progress**

As is clear from analysis above, some conditions had a unique and specific nature, while some represented a set of common characteristics. Given the inheritance of centralized, totalitarian systems (with its milder variant in Poland) it can be concluded that the comparative advantages which Poland had on the threshold of the transition process seem to have eroded rather quickly, a natural measure of the overall economic performance gross domestic product.

While using GDP, it should be noted that Poland was rapidly developing during the first years of transition and was the first country to exceed the 1989 pre-transition level of GDP. Poland achieved the highest level of real GDP in 2006 and 2007, compared with the situation in the year 1989. In the year 2006, Poland was the only country in its region that exceeded the average GDP level for the entire region, which at the time amounted to 142% of the GDP reached in 1989. Nevertheless, Poland reached the highest level of the GDP in 2007 when compared to the year 1989 (169%). At that point in time, the average for the region amounted to 151% [EBRD 2007 and 2008]. The very different situation in the Ukraine is worthy of

attention. In 2006, its GDP totaled only 63%, and in the year 2007 for 68% of the GDP reached in 1989.

The analysis of the position and stage of the development of competition, prepared within the Global Competitiveness Ranking, provides interesting conclusions. Starting from the years 2008-2009, Poland is classified as an economy-in-transition between the stage of the efficiency-driven and the innovation-driven economies [World Economic Forum 2008]. The economy of the Ukraine has recorded systematic progress during the last three years and has advanced from a factor-driven economy to an efficiency-driven economy [World Economic Forum 2008]. These processes are reflected by the changes in relative position of the compared countries in the GCR rankings.

Ukraine consistently ranked behind Poland in this system. Ukraine is a country that has not been able to seize the opportunities that opened for all the countries of its region after the Polish success of 1989 [Tiffin 2006].

Competitiveness ratings are sometimes criticized for their diagrammatic view of the economies and their simplifications. However, the above evaluations, derived from the GCR, are consistent with the general picture of the transition that emerges in this paper. Moreover, they shed further light on the course of the processes, simultaneously indicating the problematic areas that inhibit the process of catching-up with the economies of the more developed countries.

## **Conclusions**

The objectives of macroeconomic stabilization, liberalization and institutional reforms in Central Europe were to increase participation in the global economy, and most of all, to gain

the ability to achieve sustainable growth and meet the challenges of international competition. Ukraine had an opportunity to start its full market transformation as an independent country basing its actions on the experience of Hungary and Poland. The biggest problem for the Ukrainian economy was the heritage of the Soviet system. Challenges included the destruction of social capital, the lack of market economy experience, and institutions in place. As time has shown, Ukraine, and more accurately its political sector, was not able to handle those problems adequately.

In light of the analysis Poland was better prepared for the transition from a centralized economy to a market-led economy in terms of social capital. In the case of Poland, this was a result of a strong tradition of social self-organization and the existence, even in a period of dominance of the centralized system, of alternative pathways of social capital development. However it is often forgotten that the initial economic situation of Poland was very unfavorable.

An important test for the durability of economic results and the adaptability of Ukraine and Poland was the way they responded to the global financial crisis. Again, in this respect Poland's performance, at least till 2011 was better than the Ukraine's. The Ukraine was hit heavily by the 2008-2009 recession. It's GDP shrank 15% in 2009 and only in 2010 the Ukraine's GDP recovered by 4%.

Ukraine and Poland face challenges stemming from the unfavorable conditions of the global economic and financial environment. The continuation of structural reforms is necessary to set in motion their reserves of efficiency and competitiveness.

## References

- Balcerowicz, L. [1997], *Socjalizm, kapitalizm, transformacja: szkice z przełomu epok*, PWN, Warszawa
- Barisitz S. [1999], *Ukraine: Macroeconomic Development and Economic Policy in the First Eight Years of Independence*, *Focus on Transition*, no. 2, pp. 70-80.

- Bennett J., Estrin S., Maw J.W., Urga G. [2003], Privatization Methods and Economic Growth in Transition Economies, mimeo.
- Blanchard O. J. [1994], Transition in Poland, *The Economic Journal*, Vol. 104, no. 426, pp. 1169-1177.
- Dąbrowski, M., (Ed.), [1995]. Polityka gospodarcza okresu transformacji. Centrum Analiz Społeczno-,Ekonomicznych.
- EBRD [2007], *Transition Report 2007: People in Transition*, November.
- EBRD [2008], *Transition Report 2008: Growth in Transition*, November.
- Gros D., Steinherr A. [2004], Economics Transition in Central and East Europe. Planting the Seeds, Cambridge University Press, Cambridge.
- Gylfason T., Hochreiter E. [2009], Growing Apart? A Tale of Two Republics: Estonia and Georgia, *European Journal of Political Economy*, Vol. 25, no. 3, pp. 355-370.
- Hochreiter E. [1999], The Case for Hard Currency Strategies, in R.J. Sweeney, C.G. Wihlborg, T. D. Willett, eds., *Exchange-Rate Policies for Emerging Market Economies*, Westview Press, Boulder.
- Kakwani N. [1995], Income Inequality, Welfare, and Poverty. An Illustration Using Ukrainian Data, *World Bank Policy Research Working Paper*, no. 1411, January.
- Kellman, M.H. and Shachmurove, Y., 2012. Evolving sophistication of trade patterns in a transition economy-machinery exports of Poland 1980-2009. *The Poznan University of Economics Review*, 12(3).
- Kornai, J., [2000], Ten years after „The Road to a Free Economy”: the Author’s Self-Evaluation, *Economic Systems*, no. 4 (24)
- Kowalski, T., [2013], Globalization and transformation in Central European Countries: the case of Poland, Poznan University of Economics Press.
- Kowalski, T, Letza, S and Wihlborg, C., eds. [2010], *Institutional Change in the European Transition Economies. The Case of Poland*. Poznan University of Economics Publishing House, Poznan.
- Kowalski, T. and Polowczyk, J., 2012. Comparative Analysis of Economic Transformation in Ukraine and Selected European Countries. Poznan: University of Economics
- Mitra P., Yemtsov R. [2006], Increasing Inequality in Transition Economies: Is There More to Come?, *World Bank Policy Research Working Paper*, no. 4007, September.
- Paldam M., Gundlach E. [2008], Two Views on Institutions and Development: the Grand Transition vs. Primacy of Institutions, *Kyklos*, Vol. 61, no. 1, pp. 65-100.
- Williamson O.E. [2000], The New Institutional Economics: Taking Stock, Looking Ahead, *Journal of Economic Literature*, Vol. 38, no. 3, pp. 595-613.
- World Bank [2007, 2008 and 2009], *World Development Indicators*.
- World Economic Forum [2007-2015], *Global Competitiveness Reports, various issues*, Palgrave Macmillan, Geneva.



Standard International Trade Classification groups

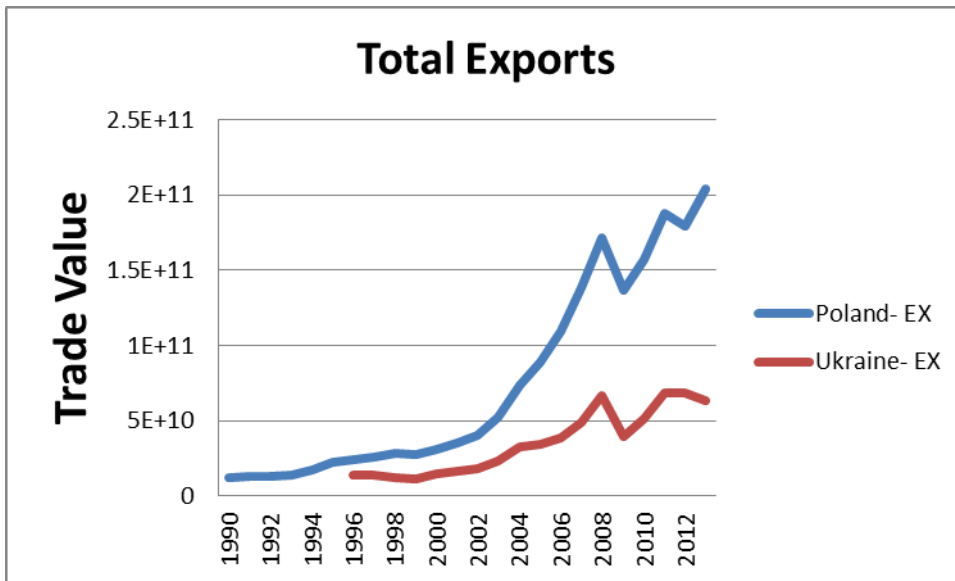


Figure 1: Overall Exports for Poland and Ukraine

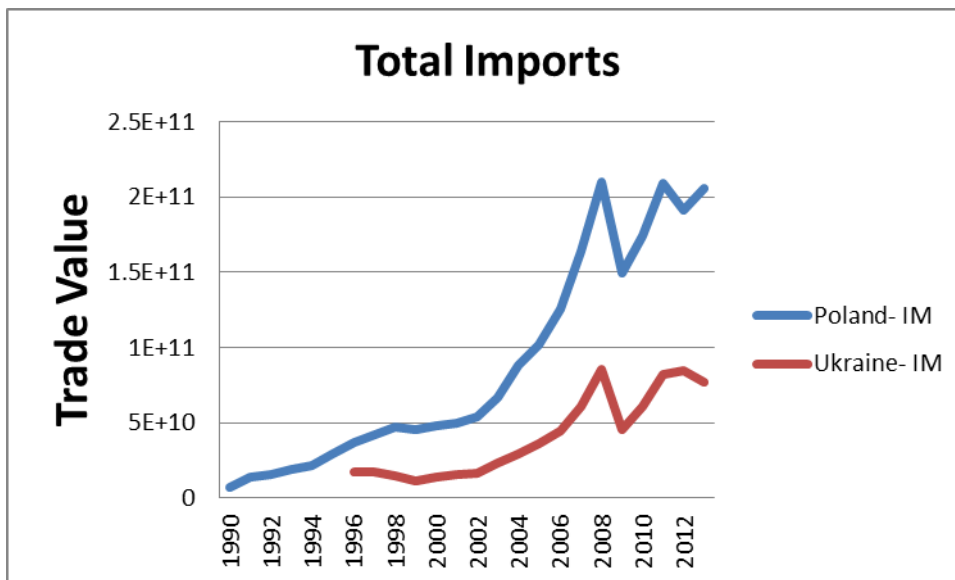


Figure 2: Overall Imports for Poland and Ukraine



Figure 3: Polish Exports to the EU, Former USSR and OECD (as percentage of total exports)

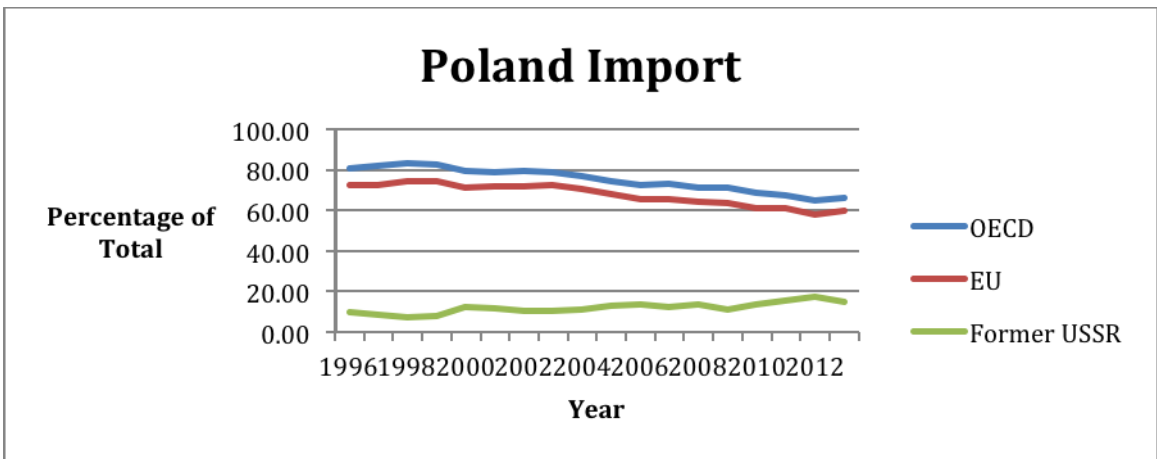


Figure 4: Polish Imports from the EU, Former USSR and OECD (as percentage of total imports)



Figure 5: Ukrainian Exports to the EU, Former USSR and OECD (as percentage of total exports)

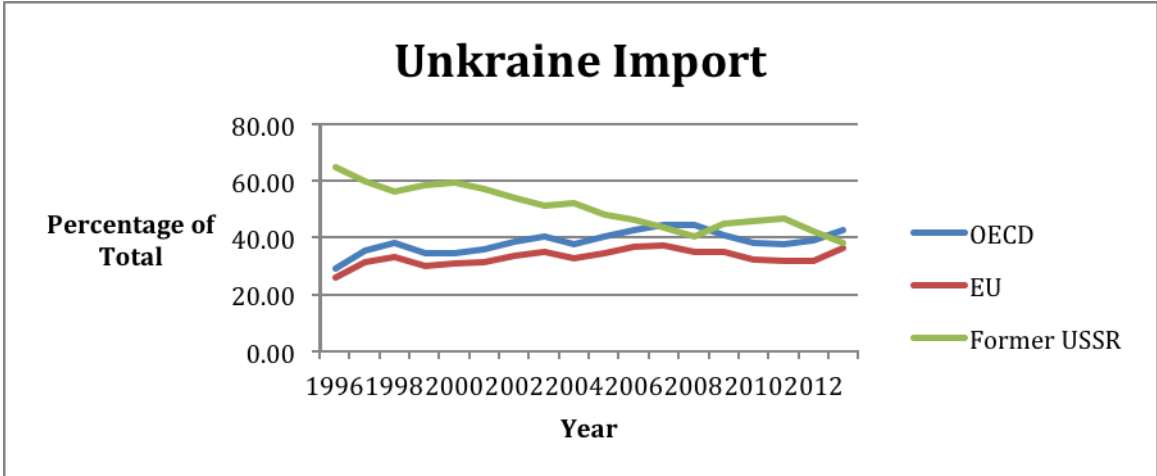


Figure 6: Ukrainian Imports from the EU, Former USSR and OECD (as percentage of total imports)

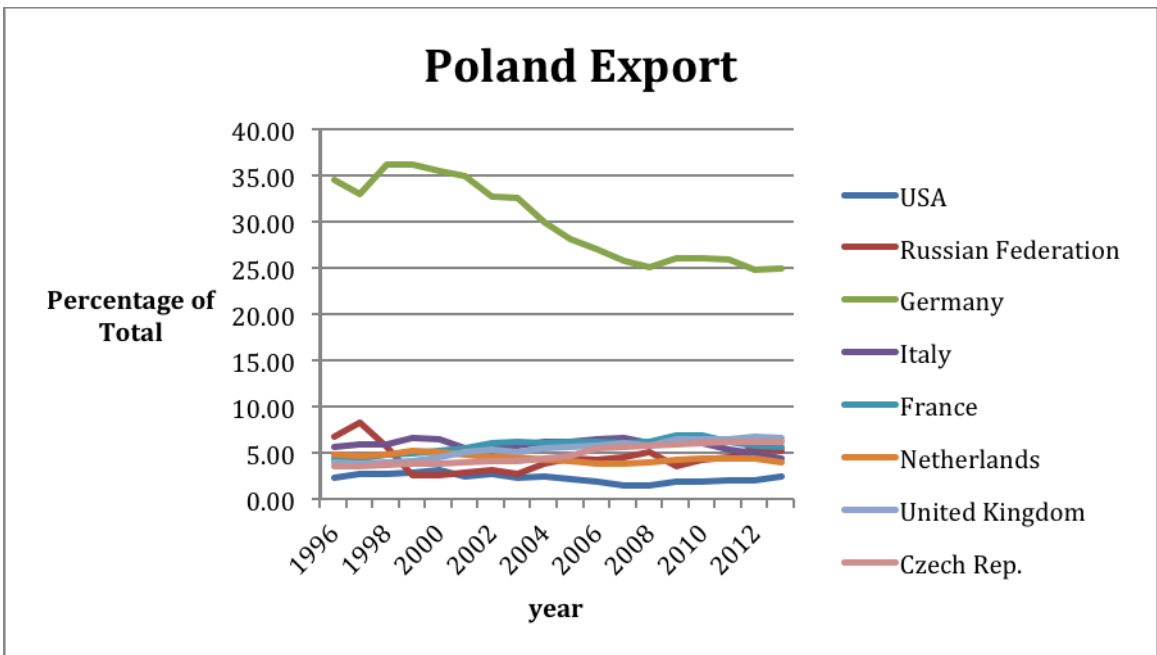


Figure 7: Polish Exports to selected countries (as percentage of total exports)



Figure 10: Ukrainian Imports from major trading partners (as percentage of total)

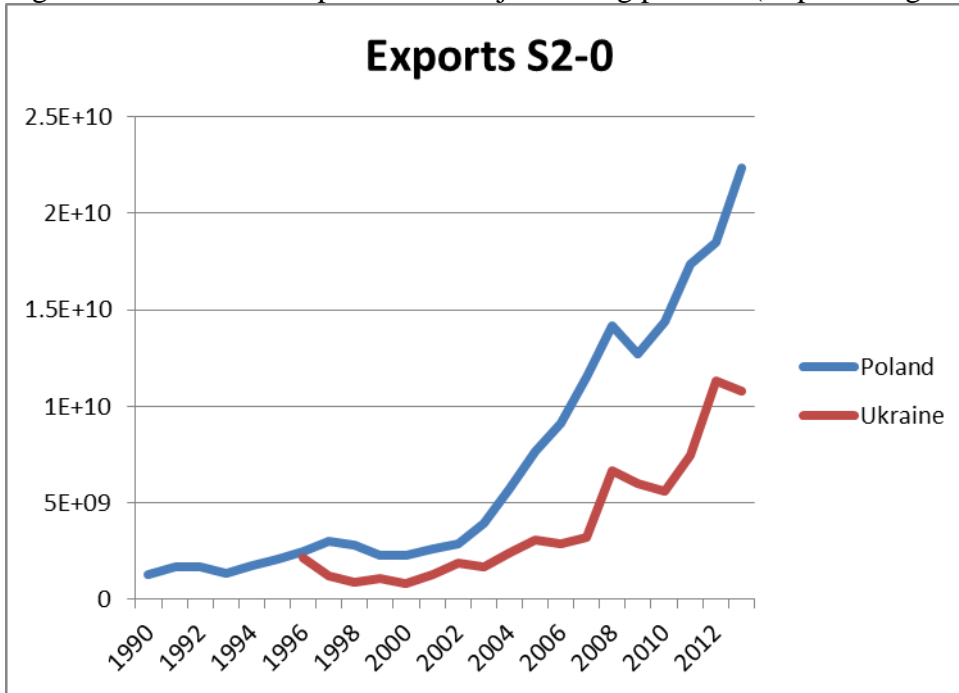


Figure 11 SITC 0-2 Exports for Ukraine and Poland (Food and live animals chiefly for food, beverages and tobacco, and Animal and vegetable oils, fats and waxes)

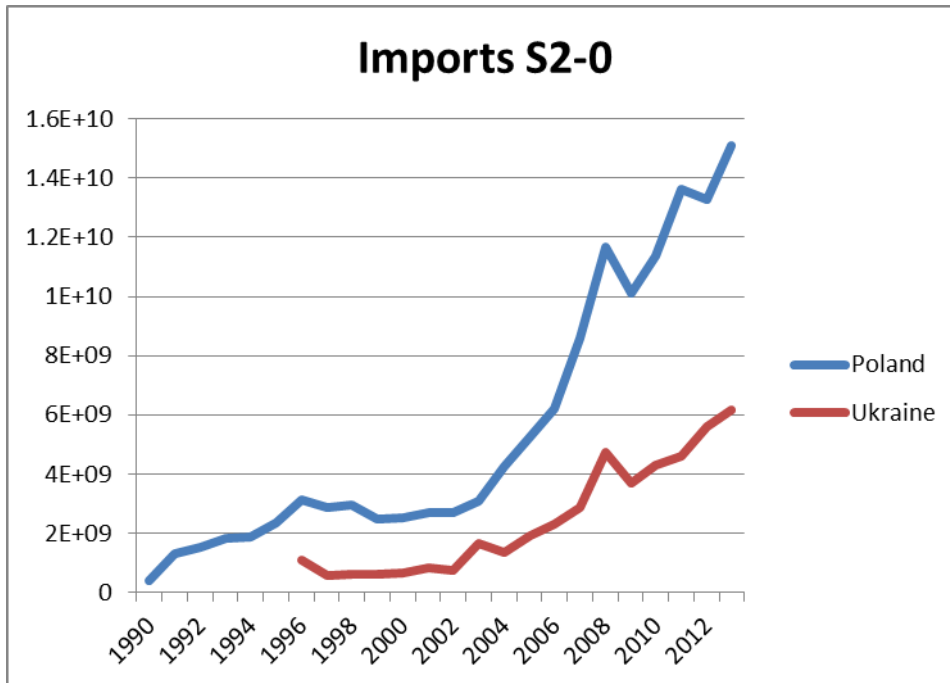


Figure 12 Imports and Exports for Ukraine and Poland for Food and live animals chiefly for food, Beverages and tobacco, and Animal and vegetable oils, fats and waxes

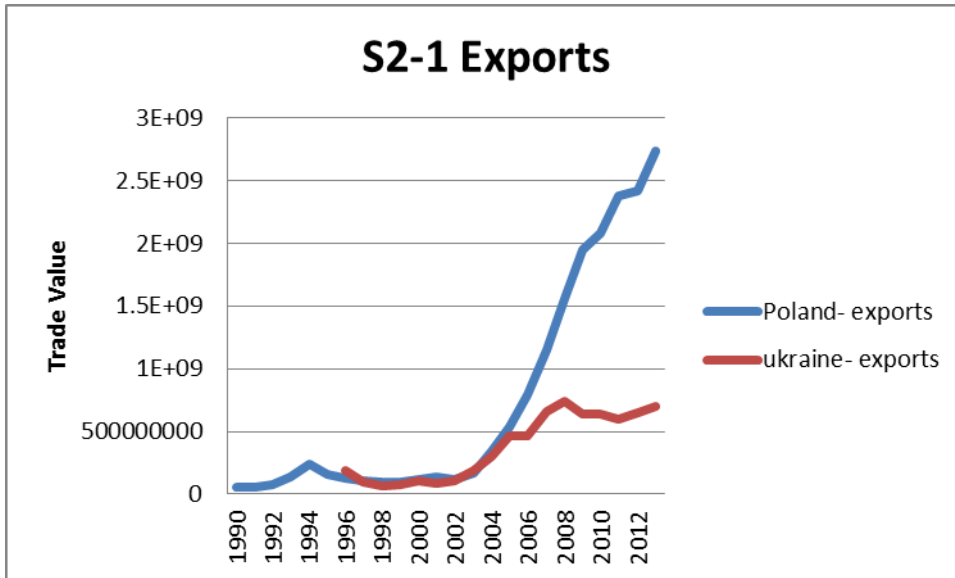


Figure 13 Imports and Exports for Ukraine and Poland for Food and live animals chiefly for food, Beverages and tobacco, and Animal and vegetable oils, fats and waxes

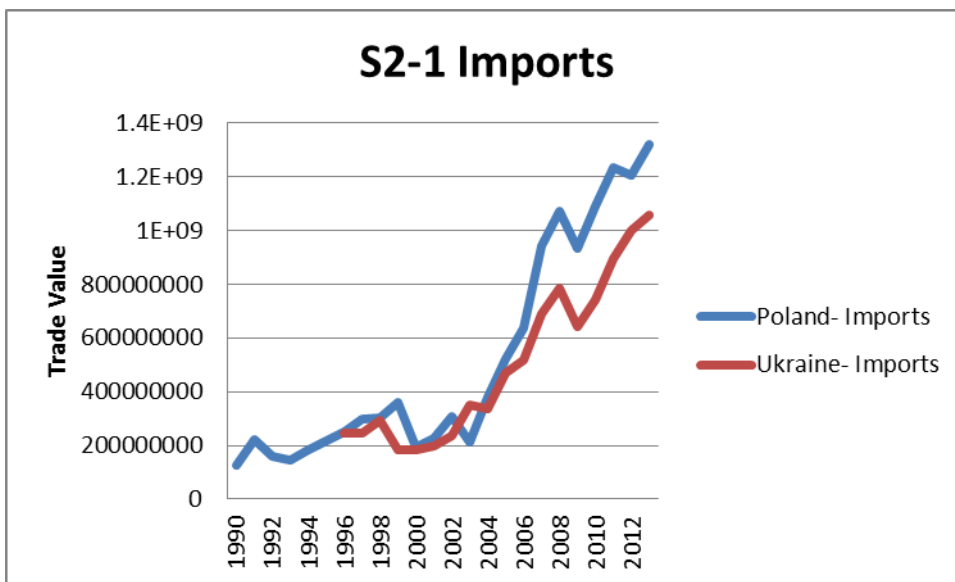


Figure 14 Imports and Exports for Ukraine and Poland for Food and live animals chiefly for food, Beverages and tobacco, and Animal and vegetable oils, fats and waxes

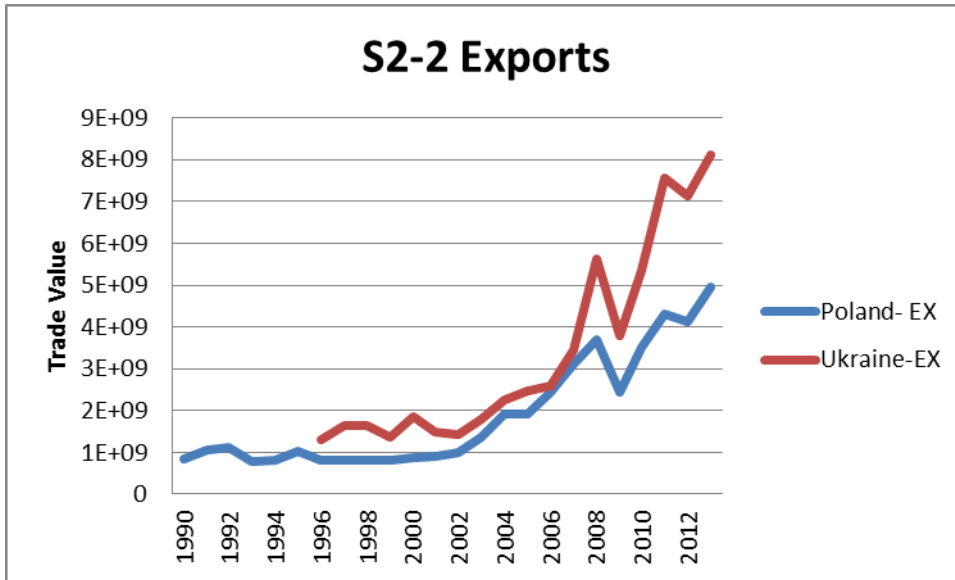


Figure 15 Exports for Ukraine and Poland for Crude materials, inedible, except fuels; and Mineral fuels, lubricants and related materials

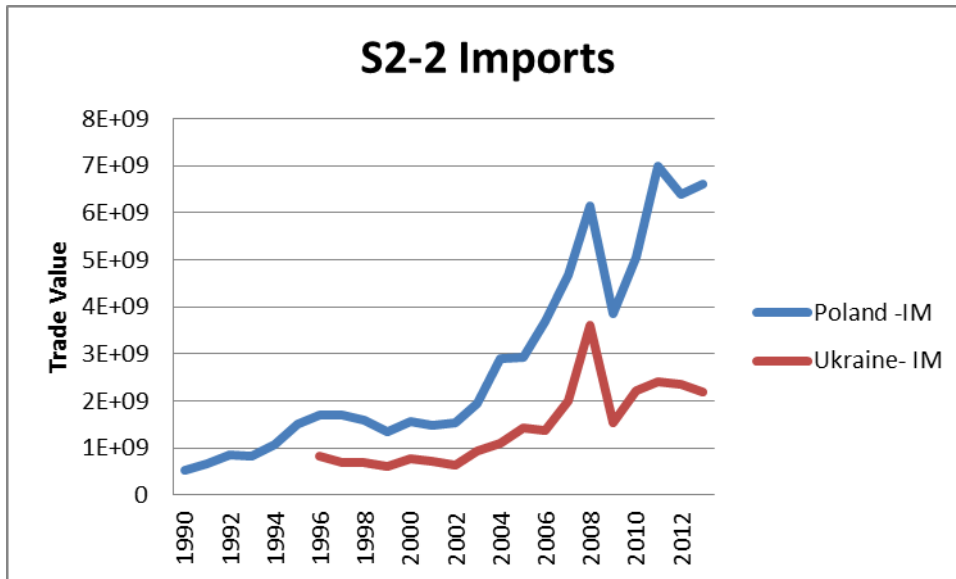


Figure 16 Imports for Ukraine and Poland for Crude materials, inedible, except fuels; and Mineral fuels, lubricants and related materials

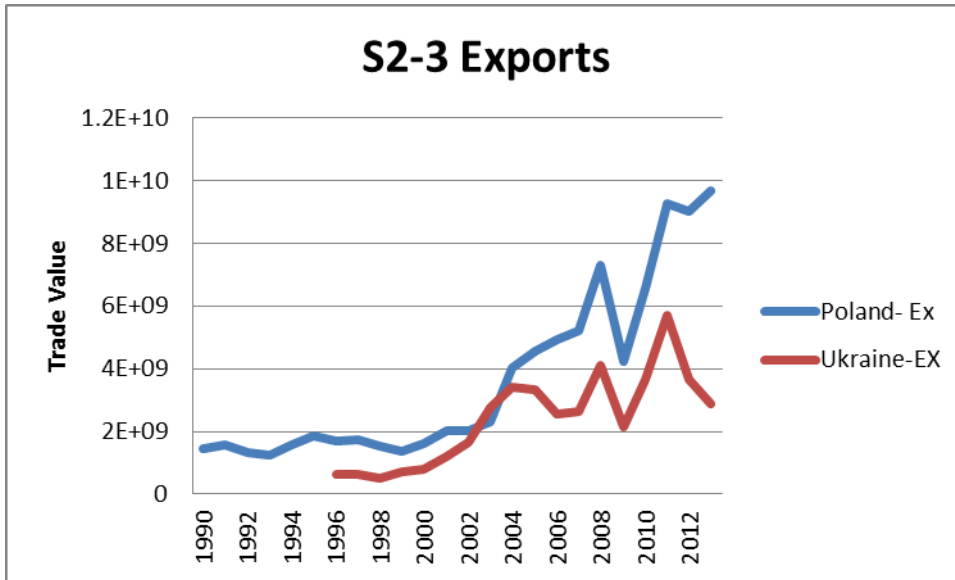


Figure 17 Exports for Ukraine and Poland for Crude materials, inedible, except fuels; and Mineral fuels, lubricants and related materials

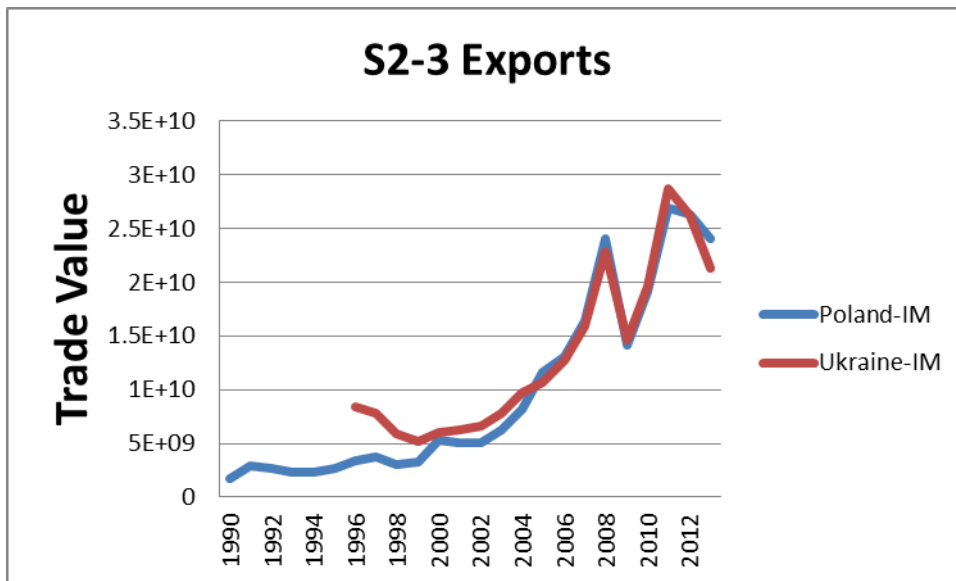


Figure 18 for Ukraine and Poland for Crude materials, inedible, except fuels; and Mineral fuels, lubricants and related materials



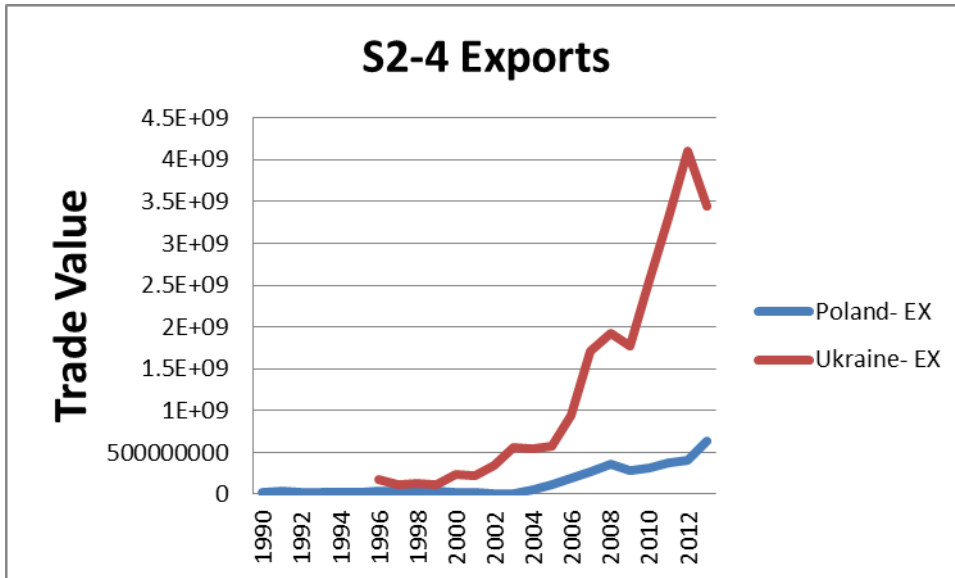


Figure 19 Exports for Ukraine and Poland for Food and live animals chiefly for food, Beverages and tobacco, and Animal and vegetable oils, fats and waxes

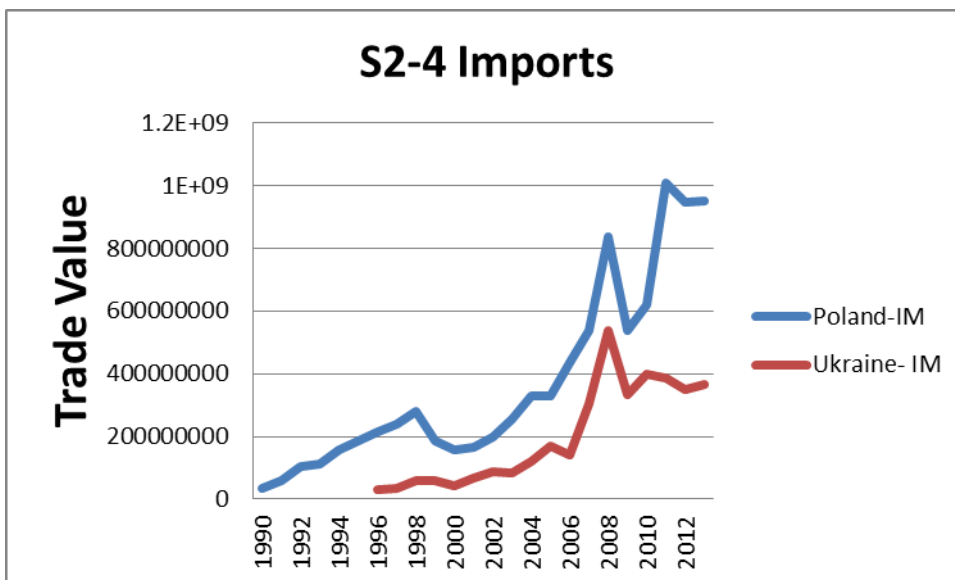


Figure 20 Imports for Ukraine and Poland for Food and live animals chiefly for food, Beverages and tobacco, and Animal and vegetable oils, fats and waxes

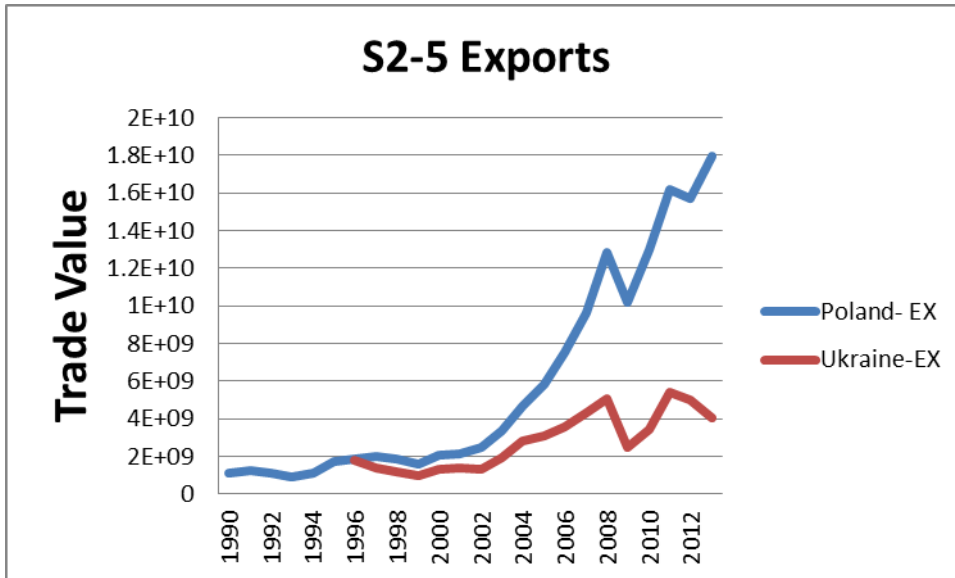


Figure 21 Exports for Ukraine and Poland for Chemicals and related products

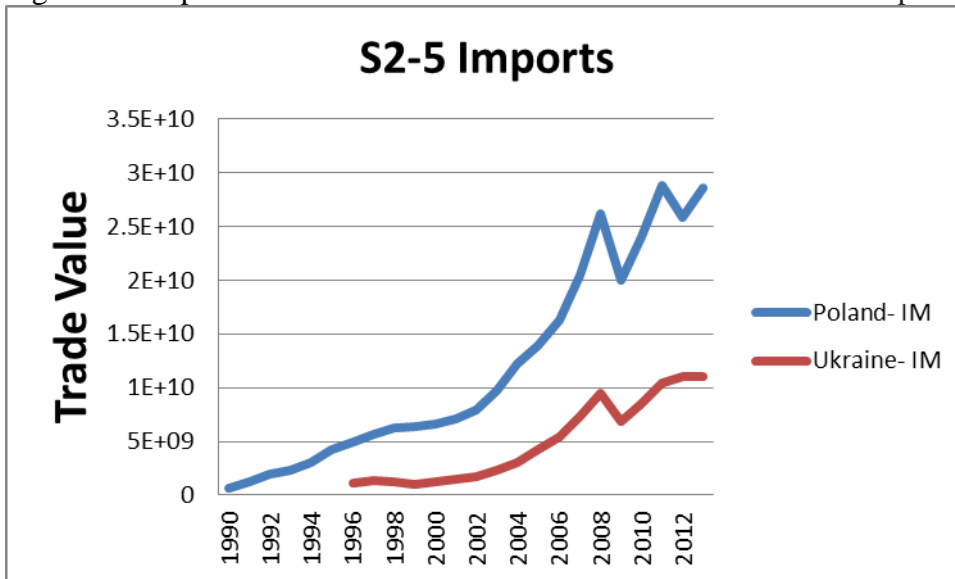


Figure 22 Imports for Ukraine and Poland for Chemicals and related products

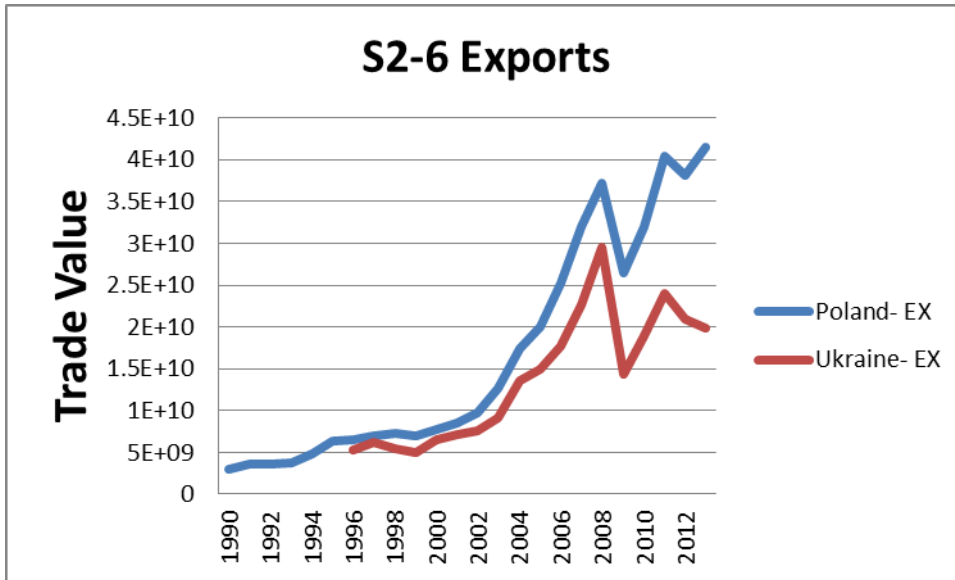


Figure 23 Exports for Ukraine and Poland for Manufactured goods classified chiefly by materials, Machinery and transport equipment, and Miscellaneous manufactured articles

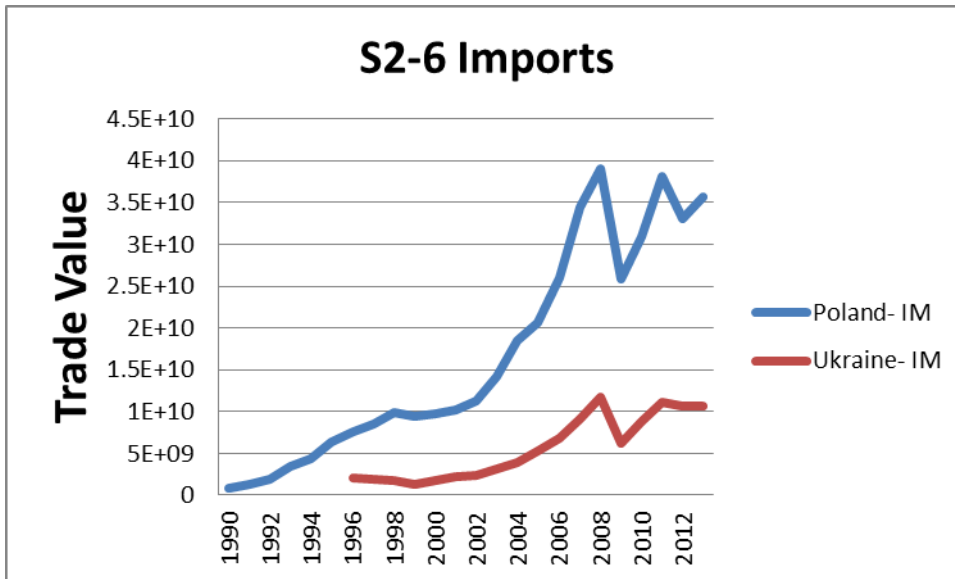


Figure 24 Imports for Ukraine and Poland for Manufactured goods classified chiefly by materials, Machinery and transport equipment, and Miscellaneous manufactured articles

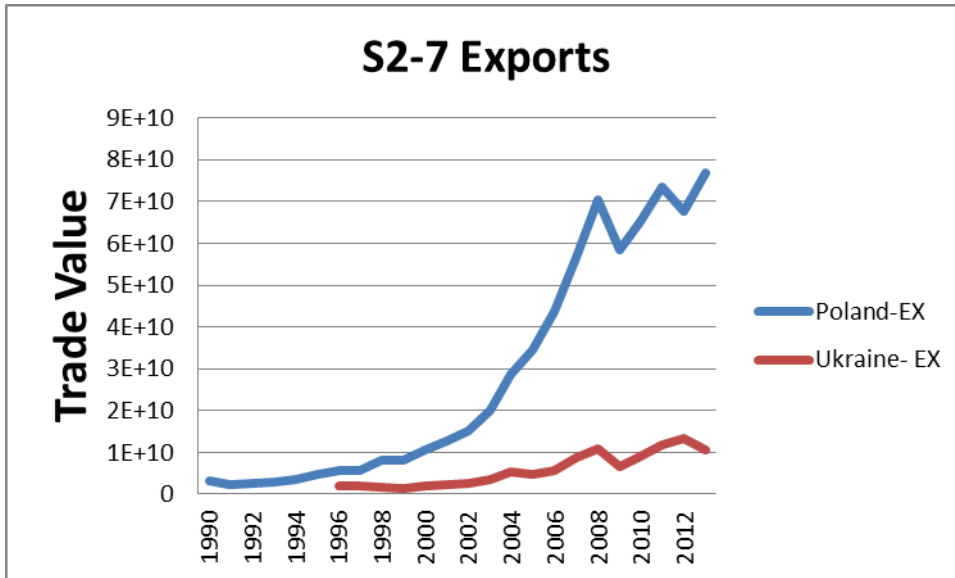


Figure 25 Exports for Ukraine and Poland for Manufactured goods classified chiefly by materials, Machinery and transport equipment, and Miscellaneous manufactured articles

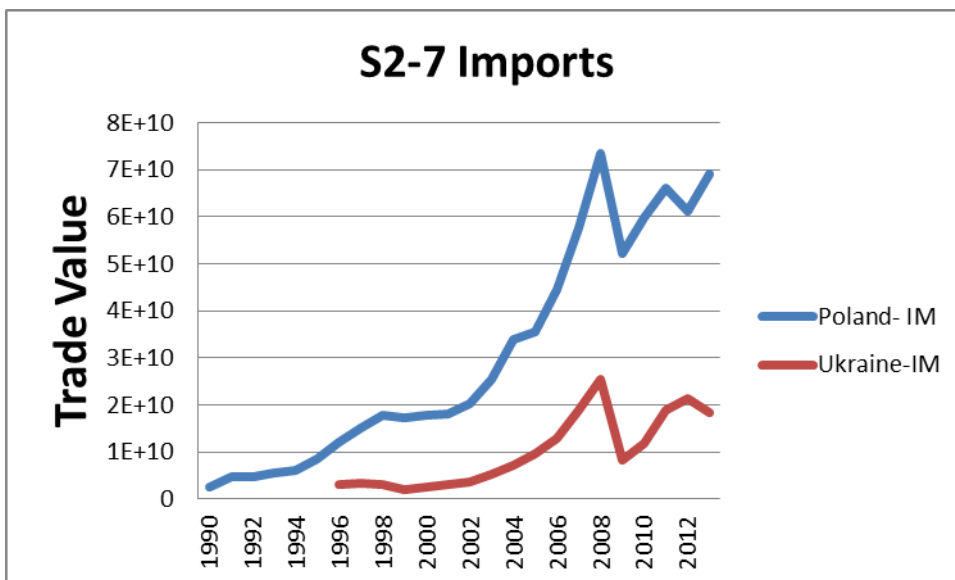


Figure 26 Imports for Ukraine and Poland for Manufactured goods classified chiefly by materials, Machinery and transport equipment, and Miscellaneous manufactured articles

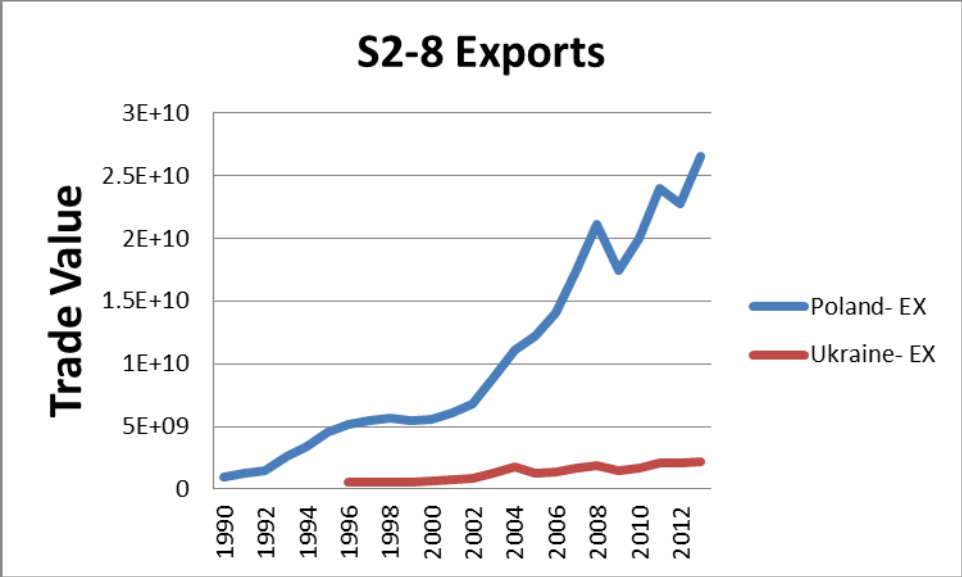


Figure 27 Exports for Ukraine and Poland for Manufactured goods classified chiefly by materials, Machinery and transport equipment, and Miscellaneous manufactured articles

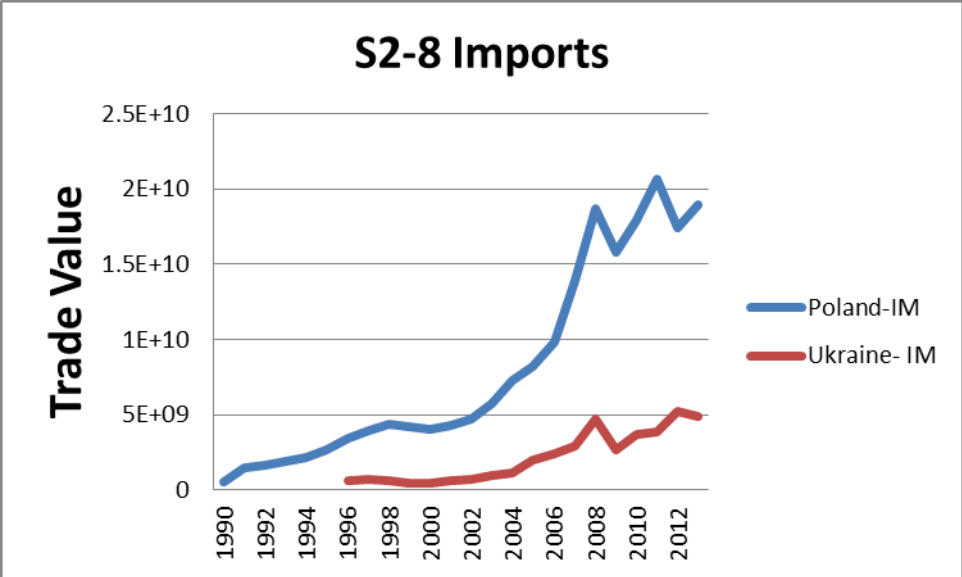


Figure 28 Imports for Ukraine and Poland for Manufactured goods classified chiefly by materials, Machinery and transport equipment, and Miscellaneous manufactured articles

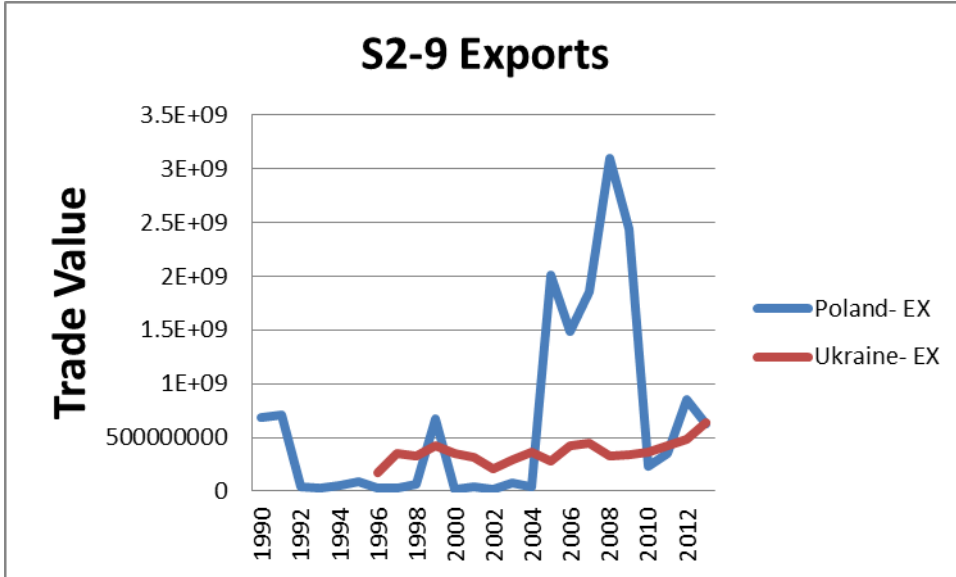


Figure 29 Exports for Ukraine and Poland for Commodities and transactions not classified elsewhere in the SITC

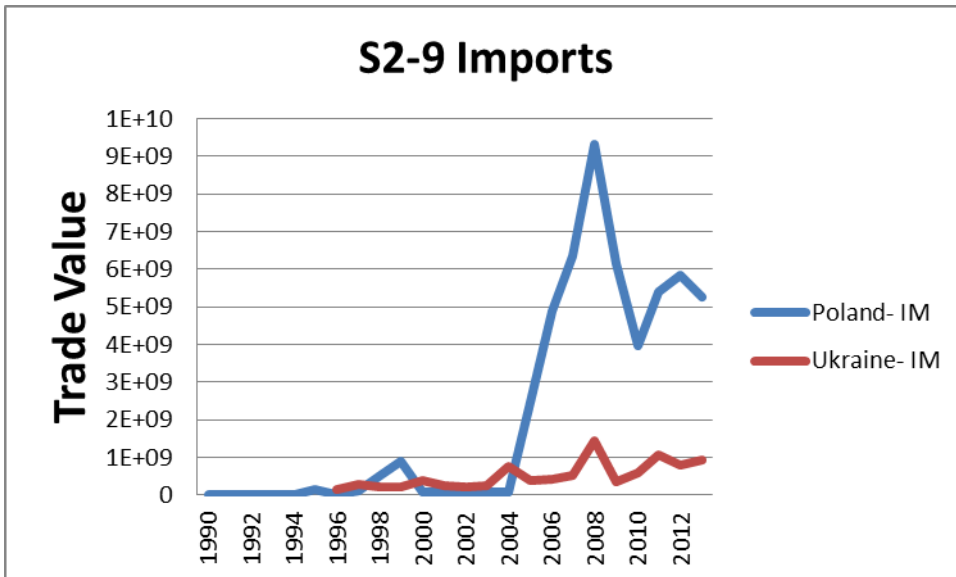


Figure 30 Imports for Ukraine and Poland for Commodities and transactions not classified elsewhere in the SITC

