Bulgaria’s Apparel Cluster
Microeconomics of Competitiveness
Final Paper

Professor Michael Porter
Professor Christian Ketels
Team members: Patrice Clausse, Maya Horii, Kiril Petkov and James Simmons
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Note: Kiril Petkov is a native of Bulgaria, having lived and worked in the country.

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I. INTRODUCTION

This paper provides a competitiveness analysis of the apparel cluster in Bulgaria. Section II gives an overview of the country’s economic history and performance before turning to an examination of its competitiveness. Section III focuses on the apparel cluster in Bulgaria, analyzing its success to date and identifying the challenges it faces going forward. The final section presents recommendations to improve the competitiveness of Bulgaria and the apparel cluster in particular.

II. BULGARIA: COUNTRY ANALYSIS

Summary:
- Bulgaria was slow to implement reforms post-Communism, and thus its economy lags behind its Central and Eastern European EU neighbors (CEEC-8). ¹
- Bulgaria’s convergence with EU living standards should create a strong tailwind for GDP per capita growth. Capital stock and TFP growth will be the key drivers.
- Bulgaria’s weak BCI scores indicate businesses are not seeing the benefits of the EU regulatory regime on the ground; the focus should be on implementation.
- Key economic risks include a potentially overheating economy, e.g. large current account deficit, and the sustainability of the currency board.

1. HISTORY AND SUMMARY OF RECENT ECONOMIC PERFORMANCE

Country Background

Bulgaria, along with its northern neighbor Romania, is the newest member of the European Union, acceding in January 2007. Located on the western shore of the Black Sea and the eastern edge of the EU, Bulgaria is a relatively small country with 7.6 million inhabitants (~1.5% of the EU-27 population), and a surface area roughly equal to Benelux or Tennessee. Bulgaria’s economy has PPP-adjusted GDP of $77 billion, or 0.6% of the EU-27, and its per capita GDP of $10,000 is 35% of the EU-27 average (Figures 1 and 2).

¹ Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Slovenia
Bulgaria’s history helps explain why its economy lags behind its European neighbors:

1878 – 1990: Independence and Communism. After five centuries of Ottoman rule, Bulgaria regained independence in 1878. However, after World War II Bulgaria fell within the Soviet sphere of influence. As a Soviet satellite and staunch ally, Bulgaria was fully integrated into the Soviet and COMECON economic area, specializing in agriculture, textiles and apparel and heavy industries. With the disintegration of the USSR and the end of the Cold War in 1989, Bulgaria regained its freedom and became a market-based democracy.

1990 – 1996: Transition to market economy. Similar to other CEE (Central and Eastern European) countries, Bulgaria experienced a deep recession from 1990-1994, with real output declining 30%. However, unlike other CEE countries, Bulgaria did not implement the necessary structural economic reforms due to a lack of change of political leadership, as much of the Soviet era leadership team had remained in power post-1990.

1996 – 1997: Financial crisis. By 1996, the State controlled 60% of the banking sector and directed loans to unprofitable state-owned enterprises (SOEs), resulting in a 70% non-performing loan rate (IMF, 2002). The central bank attempted to bail out the banking sector via liquidity infusions and emergency loans; the result was hyperinflation, exchange rate devaluation and another deep recession, with GDP declining by 15% and unemployment reaching 14.3% (EIU, 2007). One of the lasting negative impacts of the crisis was a significant outward migration of skilled labour in
search of better opportunities. It is estimated that roughly one million Bulgarians, or 13% of the population, currently live and work abroad.

**1997-2007: Reform, growth and EU accession.** The crisis marked a turning point for Bulgaria. The government resigned and was replaced by a pro-western government that acted quickly to restore stability. Key actions included creating an independent central bank, pegging the Bulgarian lev to the euro (ECU at the time) through a currency board, and privatizing the banking sector. Uniting the country behind the goal of EU membership, successive governments pushed through significant structural reforms that stabilized and improved the economy. PPP-adjusted GDP per capita grew at a 7.8% CAGR, nearly twice the rate of EU-15, from 1997-2007. Bulgaria joined NATO in 2004 and the EU in 2007.

**Expected Convergence with EU**

The process of Bulgaria’s convergence with EU living standards should create a strong, long-term tailwind for GDP per capita growth. The rationale for convergence is threefold. First, one of the stated goals of the EU is living standard convergence among member states, a goal that is reinforced by structural aid from richer to poorer states. Second, free movement of capital and labour within EU creates a unified economic zone. Finally, and most powerfully, 20 years of historical experience support the convergence argument, starting with Portugal in 1986 and continuing with the CEEC-8, as demonstrated in Figure 3. Bulgaria’s experience since 1997 mirrors that of the CEEC-8\(^2\) (CEE countries that joined the EU in 2004): strong FDI and capital inflows have financed increasing consumption and investment, fueling GDP growth. While Bulgaria’s PPP-adjusted GDP per capita is 35% of the EU-15, it is growing twice as fast at 8.0 percent per year (Figure 4).

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\(^2\) Unless indicated otherwise, all data for CEEC-8 is based on the arithmetic average of the 8 countries
Bulgaria’s Export Cluster Portfolio

Bulgaria’s export cluster portfolio is fairly diverse given the size of its economy, and most clusters compete based on natural endowments. The three largest export clusters are Metal Mining and Manufacturing ($2,473 million), Hospitality and Tourism ($2,422 million), and Apparel ($1,740 billion) (Institute for Strategy and Competitiveness, 2005) (Figure 5). Both the metal mining and apparel clusters have Communist era legacies, and contributed to Bulgaria’s important role in the COMECON economic area. While metal mining has stagnated since, apparel has grown at the fastest rate among all export clusters. The apparel cluster is supported by the Transport and Logistics, Textiles and Information Technology clusters. The tourism cluster has prospered in the last decade, helped by its location on the Black Sea and a number of ski resorts which increasingly make Bulgaria a popular year-round tourist destination.

Growth Accounting Framework

As the growth accounting framework illustrates in Figure 6, Bulgaria’s GDP per capita growth has been driven by capital stock growth and total factor productivity (TFP) growth; labour has played a secondary role.
Capital stock. Capital stock growth has been strong over the past decade, and should continue to be a medium-term growth driver. Investment is a growing component of Bulgaria’s economy, increasing at a CAGR of 19% from 1997 – 2006, and from 11% of GDP in 1997 to 24% of GDP in 2006 (Figure 7). This in turn has been driven by phenomenal growth in FDI, which accounts for 45% of investment, per Figure 8 below. Bulgaria has attracted FDI through its stable macroeconomic conditions since the 1997 reforms and its expected economic convergence with the rest of Europe. Unfortunately, a sizable portion (25%) of FDI went into real estate investments rather than factories or infrastructure, which would better increase Bulgaria’s growth potential.

Total factor productivity. Strong TFP growth has been driven by dismantling inefficiencies of Soviet central planning system and applying modern management techniques (World Bank, 2007). The CEEC-8 had similar experiences in the late 1990s. Future TFP growth will be more difficult, as it must derive from a higher skilled workforce and better use of technology. This will require investment in education and R&D (see recommendations section).
**Labour participation.** Bulgaria’s labour participation rate of 45.2% is lower than that of the EU-15 (48.2%) and CEEC-8 (47.5%). Similarly, Bulgaria’s working hours per capita are low and stable relative to the CEEC-8 (1,703 vs. 1,873). At 9.6%, the unemployment rate is high but improving, down from a peak of 18.6% in 2000. Low labour force participation, caused by an aging population and net emigration, is a key challenge to medium-term growth.

2. NATIONAL DIAMOND

The analysis of the national diamond confirms the mixed picture emerging from the previous section. While Bulgaria has made significant progress in all four areas, challenges remain.

**Demand Conditions: weak but improving.** Historically, Bulgaria’s population has been poor and demand was largely price driven, creating weak demand conditions. Bulgaria’s recent economic growth has created a large and growing middle class, predominantly in urban centers, that is driving demand for higher quality products. Demand is further encouraged by the easy availability of consumer credit. While consumers often prefer local over imported products, the limited
availability of quality local products drives them towards imports. Since EU membership, strict product quality and safety regulations have been introduced but implementation of these rules remains spotty; this is another potential area of improvement.

**Related and Supporting Industries: weak but improving.** The quality and quantity of local suppliers has increased significantly as a result of the large FDI inflows. However, the home base of most suppliers remains foreign, especially for high-tech equipment. Even when there are concentrations of companies, they do not tend to operate as clusters. Traditionally, there was a lack of industry organizations and little understanding of the mutual benefits that cooperation can provide. In the last 3 to 5 years, many Institutions for Collaboration (IFCs) have formed, and the situation is improving. There are 2 to 5 new associations in each of the apparel, IT, tourism, logistics, distribution, retail, banking and mining clusters.

**Factor Conditions: strong and improving.** Factor conditions have improved substantially in Bulgaria over the past five years, driven by the EU accession process. According to Standard & Poor’s, which upgraded Bulgaria’s sovereign credit rating to investment grade in 2005, Bulgaria continues “to work on aligning [its] legal, institutional, and economic structures with EU requirements.” The EU is scheduled to provide aid to Bulgaria of at least 2.5% of GDP per year for the next 3 years, or €7 billion in total. Roughly 40% of this is structural aid—funds mainly for specific transport and environmental projects, and a further 30% are earmarked for institution building (IMF 2006; EU Commission 2007). This will further enhance the improvements in Bulgaria’s infrastructure and institutions started during the EU accession process.

The Soviet legacy has left Bulgaria with a comparatively developed and accessible education system at all levels, with a 99% adult literacy rate and 88% net primary and secondary education completion rate (UNICEF and UNDP, 2006). Net emigration of skilled workers has been a continuous challenge, particularly after the 1997 financial crisis. Recently, though, there have
been signs of progress. According to Emilia Maslarova, Bulgarian Minister of Labour, “migrant Bulgarians of young and middle age tended to return to Bulgaria in increasing numbers. Desire to seek employment abroad had doubly diminished” (Press Conference, 2006). Anecdotally, this trend can be observed at HBS, as 8 out of the 12 MBA 2007 graduates are returning to work in Bulgaria.

**Context for Firm Strategy and Rivalry: strong, but room for improvement.** EU accession has driven improvements in CSR conditions, including free movement of labour and capital throughout the EU and a strong regulatory framework that protects foreign investors. Furthermore, the government has paid special attention to easing regulations on businesses. This has allowed Bulgaria to move from 59th\(^3\) place in 2005 to 54th place in 2006 in the World Bank’s “Doing Business” 2006 survey. Domestic rivalry has increased in some industries, such as tourism and mining, due to the entry of foreign companies and increased local entrepreneurial activity. Bulgaria needs to further develop its services industry, which is relatively immature. In addition, corruption and organized crime, which distort competition, remain a serious problem; this almost delayed EU accession (EU Commission, 2006). Finally, intellectual property rights are not strictly enforced.

3. **COMPETITIVENESS INDICATORS**

The mixed picture evident in Bulgaria’s national diamond is also reflected in its relatively low Business Competitiveness Indicators (BCI) scores as shown in Figure 10. Bulgaria ranks 65th out of 74 countries in overall BCI, relative to a PPP-adjusted GDP per capita ranking of 46th. Furthermore,

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\(^3\)No data is available for years prior to 2005

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Bulgaria’s BCI ranking has declined by two places in the last five years and has been overtaken by Romania and Vietnam. Bulgaria’s low overall ranking is driven by weakness in both the National Business Environment rank (63rd of 74) and Company Operations & Strategy rank (70th of 74).

Given that Bulgaria has adopted the EU regulatory regime, one would expect it to have a higher BCI ranking. For example, the EU-15 are ranked 18th, and the CEEC-8 35th, out of 74 countries, roughly corresponding to their GDP per capita rankings. Clearly, as the BCI data relies partially on surveys, Bulgarian businesses are not actually seeing improvements on the ground. Bulgaria’s weak performance, similar to Romania’s, is likely driven partly by delay or inaction between adoption and implementation of new EU laws. As stated in the OECD’s performance assessment of Bulgaria’s enterprise policy, businesses felt “a theoretical [rather than a concrete] SME policy approach is practiced at ministerial level. Everything is based on documents…which often have no basis in reality.” Additionally, there are specific areas where Bulgaria needs to further improve, as discussed in the recommendations section.

4. POLICY DEVELOPMENTS

Galvanized by the severe financial crisis in 1997, Bulgaria has implemented a successful set of policies over the past decade, culminating with its accession to the European Union this year.

The key areas of policy developments are listed below.

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<tr>
<th>Macroeconomic</th>
<th>Business Environment</th>
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<tr>
<td>• Fixed exchange rate to the Euro through currency board in 1998.</td>
<td>• Tax: corporate taxes reduced from 24% to 10%, VAT established at 20%.</td>
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<td>• Converted foreign debt into domestic debt.</td>
<td>• Zero tax rate in high unemployment regions.</td>
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<td>• Elimination of all trade barriers with EU in 2002.</td>
<td>• Full elimination of capital controls.</td>
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<td>• Consistent government budget surpluses between 2003 and 2006.</td>
<td>• Labour market reform allowing for easier firing of people, and hiring on temporary basis.</td>
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<td>• Pension reform from pay-as-you-go to partially funded system.</td>
<td>• Privatized most state-owned monopolies: utilities, transportation, telecom, manufacturing</td>
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<td></td>
<td>• Full liberalization of prices (no caps) including on utilities.</td>
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<td></td>
<td>• Unrestricted foreign ownership of Bulgarian companies.</td>
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<td></td>
<td>• Imposing EU regulatory requirements on agricultural products, manufacturing of foods, and aviation.</td>
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<th>Political / Social</th>
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<td>• Joined WTO in 1996.</td>
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<td>• Joined NATO in 2004.</td>
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<td>• Joined EU in 2007.</td>
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<td>• Eliminated mandatory military service.</td>
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<td>• Legislative reform: adapted to <em>acquis communautaire</em> (31 chapters).</td>
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<td>• Reduced levels of corruption and organized crime.</td>
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4 Based on the arithmetic average of all 15 countries
5. CHALLENGES TO FUTURE ECONOMIC GROWTH

Bulgaria’s economy is performing well but faces several risks which must be managed carefully.

Macroeconomic Policy

Overheating economy / current account deficit. According to Standard & Poor’s, for the five “overheaters” (Bulgaria, Estonia, Latvia, Lithuania, and Romania), ”although demand-pull price pressures are present, excess demand has found its main outlet in ballooning current account deficits driven by trade imbalances, and a concurrent rise in external liabilities” (S&P 2007). Bulgaria’s current account deficit is 16% of GDP, compared with 8.6% for the CEEC-8 and a 0.5% surplus for the EU-15. This current account deficit represents imports of both consumption and investment goods (the Bulgarian government reports that the majority is for investment goods), and is largely financed by FDI inflows (IMF, 2006). In the medium term, Bulgaria must increase its exports, while in the short term the heavy reliance on FDI makes Bulgaria vulnerable to external shocks.

Risk of a currency board collapse. Bulgaria’s currency board, which pegs the lev to the euro, has eliminated hyper-inflation and enabled macroeconomic stability over the past decade. The currency board is a precursor to Bulgaria’s entry to the euro-zone, which was a condition of its accession to the EU. Before adopting the euro, Bulgaria must meet the Maastricht criteria, which includes a requirement that the inflation rate be no more than 1.5 percentage points higher than the 3 best-performing member states of the EU. Bulgarian inflation was 7.3% in 2006, well above the 2.8% maximum threshold required under Maastricht (EIU, 2007). Bulgaria has targeted 2010 for entry; euro-zone banks, which expect the currency board to transition smoothly into euro adoption at current exchange rates, have lent extensively to Bulgarians in euros. This provides Bulgarians access to credit at negative real interest rates as Bulgarian inflation is 7.3%, while euro interest rates
are 3.75%. This cheap credit has largely been positive, helping fuel investment and consumption growth. However, the currency mismatch (borrowing euros to buy lev assets) would create severe economic disruption in the event of a currency board failure.

**Microeconomic Policy**

Both the BCI and the Doing Business Indicators highlight that Bulgaria still needs to improve its microeconomic policies. As mentioned previously, businesses feel that the government is not focused on SMEs, and does not effectively implement existing regulations. SMEs note the “absence of an integrated institutional environment for business development” and feel that “entrepreneurship in Bulgaria does not yet have appropriate structures to represent it” (OECD, 2002). Several areas stand out and require particular attention.

**Appropriateness of advanced educational curriculum.** While access to education is well developed in Bulgaria, there is mounting evidence that the universities are not focused on the skills relevant to business today. Bulgaria’s proportion of science and technology graduates for both short and long courses is low relative to its European counterparts (OECD, 2007). Furthermore, very few schools offer high quality management training. This creates a shortage of engineers and talented managers, holding back companies in their ability to improve their competitiveness.

**Lack of innovation focus.** Bulgaria invests only 0.5% of GDP into research and development (private and public research combined) as shown in Figure 11 (Eurostat, 2006). This compares unfavorably to the EU-15 (2.0%) and the US (2.6%), and even the CEEC-8 (1.0%). Bulgaria’s lack of innovation is also reflected in its low level of patents registered (Figure 12). Bulgaria has 4.6 European Patent Office patent applications per million inhabitants compared to over 300 in Germany or Finland, and 13.8 in CEEC-8 (Eurostat, 2006).
Lack of access to credit for small and medium enterprises (SMEs). Despite the ongoing credit boom in Bulgaria, SMEs still have difficulty in accessing adequate credit. This is driven both by the lack of a developed credit scoring industry and the traditional focus by banks on large enterprises. For example, only 13.6% of firms and individuals in Bulgaria have a credit score, versus 100% in the U.S., making it difficult for banks to make informed lending decisions (Doing Business, 2006). While the government has taken several initiatives to address this issue (e.g. National Strategy for Encouragement of the SMEs Development 2002-2006), this still remains a key roadblock for additional entrepreneurial activity in the private sector.

Inadequate support for SMEs. Bulgaria remains a very challenging business environment in which to operate, especially for SMEs. In a recent report by the OECD and EBRD, only the presence of business incubators and the availability of advisory services ranked as satisfactory. All other dimensions, including institutional context, regulatory framework, tax system, and financial system, ranked as poor.
III. APPAREL IN BULGARIA: CLUSTER ANALYSIS

Key Summary:

- The apparel cluster has a long tradition of high quality output. It is the largest and fastest growing cluster in Bulgaria, comprising 3,000 core apparel companies, accounting for roughly 15% of exports and having doubled in size over the past 5 years.

- The cluster is positioned in the right market (high-end products, rapid delivery), but in the wrong activities (low value-add activities such as Cut-and-Made). Thus, it participates in only 10% of the value chain. The challenge is to shift into design (20%) and marketing & sales (50%).

- Cluster strengths include a trained workforce, good supporting clusters, and close and free access to the EU market; weaknesses include the low level of branding and marketing.

- There is significant entrepreneurial activity in the small but fast-growing branded sector, but moving the whole cluster in this direction will require higher levels of coordination between educational institutions, firms and government.

1. HISTORY AND EVOLUTION OF APPAREL CLUSTER

Bulgaria’s apparel industry origins date back to the nineteenth century when the first industrial enterprise in textile and apparel opened in 1843, while Bulgaria was still under Ottoman rule (BAATPE). By the beginning of the 20th century, textile and apparel vocational schools had opened in several Bulgarian cities including Sofia, Assenovgrad and Plovdiv. During the Communist era, Bulgaria was a main supplier for textiles and apparel for the COMECON economic area. It also exported a small amount of apparel products to other countries through the state-owned trade organization called “IndustrialImport,” providing initial exposure to Western markets.

The collapse of the Soviet Union in 1991 resulted in a loss of the COMECON export market. Most apparel factories remained state-owned throughout the early 1990’s, and were financed by state-controlled banks. As part of the structural reforms after the 1997 crisis, however, Bulgaria began privatization of its state-owned apparel factories. Given a boost from the devalued currency, Bulgarian firms grew their exports to Western Europe. In 2002, as a precursor to EU accession, Bulgaria signed the Association Agreement, which eliminated all tariffs for trade with EU member
countries. This provided a further stimulus for Bulgaria’s apparel cluster, enabling rapid growth over the past five years.

2. GLOBAL APPAREL MARKET

Bulgaria’s apparel cluster competes in the $800 billion global apparel market. The apparel market has grown at a 6.3% CAGR since 2001. Western Europe represents the largest sub-market with 34% value share, followed by North America (27%) and Asia Pacific (20%) (Figure 13). With 3% share, Eastern Europe is small but is the fastest growing market globally. Western Europe imports slightly over half of its apparel imports from Asia, and one quarter each from North Africa and Eastern Europe (Figure 14).

Within the Western European market, higher-end apparel designers with time-sensitive orders have naturally gravitated to Eastern Europe for sourcing. The average transportation time to Western Europe is 4 days from Eastern Europe, versus 2-3 weeks from Northern Africa and 4+ weeks from Asia. In contrast, price sensitive apparel designers tend to source from Asian or North African producers, as their labour rates are only modestly higher.

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5 The data for this section was sourced from the Global Market Information Database of Euromonitor International.
37% of Eastern Europe’s. The global apparel market historically has been subject to heavy trade restrictions, due to efforts by developed economies—mainly the U.S. and Europe—to protect their domestic apparel industries. Remaining restrictions are set to expire by 2008 (Figure 15).

3. BULGARIA APPAREL CLUSTER PERFORMANCE

Bulgaria’s apparel cluster has performed extremely well over the past five years, exhibiting strong growth and a focus on high value-added products. Because Bulgaria exports 85% of its total apparel production, of which over 90% goes to Europe, it is very dependent on the growth of European apparel consumption (Figure 16). Moreover, as indicated in Figure 17, the combination of Western Europe’s strong growth, and the continued shift of production out of Western Europe, has enabled Bulgaria to double apparel production between 2000 and 2005 (CAGR 15.6%—highest in Europe), while EU-25 countries shrunk by 30% during the same period (BAATPE, 2007).

At $2.7 billion, apparel accounts for 15% of national exports, and is thus a critical component of Bulgaria’s economy. In addition, as shown in Figure 18, the cluster is focused on high-end products, such as women’s knitted blouses and jackets, and men’s jackets and suits.
There are over 3,000 apparel manufacturers at the core, covering all major product categories. However, the highest value-added components, including equipment suppliers, designers and retailers, are largely missing.

The apparel manufacturers receive inputs from the textile cluster, which is smaller but also active in Bulgaria, and from other material suppliers for trims, buttons, and other accessories. While the emerging IT cluster enables supply chain management and local financial institutions provide credit, sophisticated equipment necessary for production is mostly imported from Germany and Italy. Supporting these manufacturers are a number of exporting and logistics companies, and other supporting infrastructure such as transportation, electricity and utility firms. A number of IFCs exist in Bulgaria, in the form of industry associations, universities, and vocational schools in design and production. However, since most of the production is designed by foreign retailers, and over 85% of output is exported, there is a limited presence of Bulgarian designers and retailers
today. Because of that, the cluster has little involvement in media and advertising, including fashion shows. This has a significant, negative impact the cluster’s ability to migrate to higher value-added activities.

**Value Chain**

As shown in Figure 20, the Bulgarian apparel cluster is heavily focused on production, which represents only 10% of the final retail product value. Bulgaria is not participating in the high value-added activities such as design (20% of value), or marketing and sales (50% of value). In addition, many orders that Bulgarian manufacturers receive from foreign retailers are “Cut-and-Made (CM)” or “Cut, Made and Trim (CMT)”. In CM orders, the customer provides the design, pattern and material necessary to Bulgarian manufacturers, who simply cut and sew the fabrics. This contrasts with “Full Package (FP)” orders, in which manufacturers are responsible for everything from sourcing material to packaging. FP orders allow manufacturers to add value through production process improvement, creativity and finishing to final products. There are limited signs of progress, including the emergence of Bulgarian design houses, and certain best practice manufacturers extending their services into sourcing of the materials (upstream) and finishing of products to branding (downstream) (see section 6).
The apparel cluster diamond’s strengths and weaknesses largely mirror those of the national diamond (Figure 21). Factor Conditions and Context for Firm Strategy and Rivalry are strong, and are key driving forces of the current positive performance of this cluster. Related and Supporting Industries are present and emerging, particularly the IT cluster. Demand Conditions in the domestic market have been relatively weak, which has slowed the Bulgarian apparel manufacturers’ transition to higher value-added activities. However, the strong economic growth accompanying Bulgaria’s convergence with the EU has already begun to improve demand conditions, and this is expected to continue. Overall, the apparel cluster is well-positioned for growth in the short-term, but much work is necessary to upgrade the cluster diamond to transition to faster growth and higher value-added activities.

**Factor Conditions: strong and improving.** Strength in factor conditions, particularly the low cost labour and geographic proximity to Europe, has been the driving force of Bulgaria’s apparel cluster’s strong past performance.
Labour. Bulgaria’s apparel cluster benefits from two key advantages related to its labour force: it is well-educated and low-cost. One of Bulgaria’s positive inheritances from the Communist era is a well-developed educational system. There are 14 major colleges in Bulgaria for apparel, textiles and design. Most cities have at least one specialized school with the current leader being the Professional School of Textile and Fashion Design in Sofia. These schools graduate approximately 1,700 students per year in total.

There are two issues that must be addressed in order to maximize the value of this asset. First, much of the educational curriculum has not been updated since the Communist era to reflect the new market economy. Thus, while courses on production methods, supply chain and factory operations are highly developed, marketing and strategy courses are limited or non-existent. Not surprisingly, current graduates are able to optimize production scheduling and factory operations, but have limited background in branding, marketing and general management skills including strategy. Second, many of the highly trained professionals have left the country; they are among the 1.1 million strong Bulgarian diaspora, representing 13% of the population, formed in the last 15 years. For example, world famous fashion designer Milena Dobreva is a graduate of the Bulgarian educational system, but currently operates her business in London and New York. On a positive note, a significant number of Bulgarian professionals living abroad have returned in the last two years to start entrepreneurial ventures.

The apparel cluster also benefits from low-wage labour relative to Western Europe. For example, apparel workers in Bulgaria earn half as much as their counterparts in Portugal. However, with an average annual wage of $3,600, Bulgarian workers are significantly more expensive than workers in Asia. Thus, Bulgarian apparel producers have largely exited low value production activities, as they cannot compete against China and India. They have instead shifted their activities to segments where high quality and fast delivery time are more important than low prices. Within
this higher value-added production segment, Bulgaria’s lower labour costs relative to Western European competitors have allowed the Bulgarian cluster to gain significant market share, which explains the strong growth experienced over the past five years – doubling in size, while Western Europe declined 30%. The challenge facing Bulgaria is to remain competitive versus Asian and North African manufacturers, who continue to improve productivity, even as Bulgaria’s strong economy has led to high apparel wage increases of 10% per year for the last two years. This will require a shift to even higher value-added, branded products that innovate in style and efficiency.

Location. In addition to labour advantages, Bulgaria’s apparel cluster also benefits from its geographical proximity to Western European design houses and end-customers. It takes three days by truck to transport products from Bulgaria to any capital city in Western Europe. This enables a rapid delivery strategy that, at present, offers a competitive advantage versus low-cost Asian competitors. The most proactive companies in Bulgaria, such as Ropotamo (see section 6), have reduced order to delivery time to only three weeks. Chinese firms requires roughly one month for land/ship delivery, effectively excluding Chinese producers from the intra-season delivery market.

Bulgaria’s rapid delivery capability complements retailers’ shift to “quick response” strategy, which allows retailers to “reduce forecast errors and inventory risks by planning assortments closer to the selling season, probing the market, placing smaller initial orders and reordering them more frequently, and so on” (ZARA, 2005). For example, Bulgarian companies’ intra-season delivery capability allows fashion retailers to increase sales by quickly replenishing popular, fast selling items. This more than offsets the additional variable cost from more expensive labour, as retail gross margin is ~50% of sales, while the labour component is only ~10%. The labour cost differential causes a ~5% decrease in margins, but additional sales bring 50% contribution margins; thus, any retailer who believes that intra-season demand may vary more than 10% of the forecasted sales, should produce in Bulgaria rather than China (Ropotamo interview, February 2007).
Another significant advantage of Bulgaria’s location is its proximity to Romania, Turkey and Serbia, all of which have strong apparel clusters. This has created a mutually beneficial regional cluster effect, including intra-cluster textiles trade, increased competition and an ability to serve the different needs of large customers within the Balkan region.

**Related and Supporting Industries: decent and improving.** Bulgaria’s apparel cluster is supported by three key related clusters: land logistics (2,600+ companies), fabrics (520+ companies) and IT (900+ companies). At first glance, the IT cluster’s connection with apparel is counterintuitive. However, extensive interviews revealed that every producer that focused on the rapid delivery segment had its own partnership with a Bulgarian software company to create customized production optimization programs. The most progressive apparel companies used IT for computer-aided design, real-time internet-based exchange of apparel modifications with customers and value-added services including last minute design modifications.

Various interviewees attributed the IT-apparel cluster linkage to the Bulgarian apparel educational curriculum recent upgrade to include courses on computer design and optimization of factory production and supply chain.

The fabrics and logistics clusters both support the apparel cluster, but should focus on providing even higher value-added services. The Bulgarian fabrics cluster has traditionally been most competitive in wool fabrics. More recently several high-end Italian apparel firms have
established textile factories in Bulgaria to take advantage of tax incentives and proximity to manufacturers, indicating potential for future growth. However, Bulgaria is not competitive in other segments of the market for fabrics, particularly in synthetic materials and accessories. The logistics cluster is provides low cost and fairly reliable service, but lacks capability in higher value-added sectors such as just-in-time warehousing solutions or real time tracking. While these related clusters are not as strong as the core apparel cluster, they provide a strong support base and continue to grow and improve.

*Context for Firm’s Strategy and Rivalry: Strong but needs further improvement.* There are over 3,000 apparel producers in Bulgaria today, most of which are small to medium size, ranging from 50 to 1,000 employees. The companies are highly competitive with each other, and there are no overwhelming large competitors mainly due to the lack of significant economies of scale in this industry – this results in greater focus on external coordination as frequently several competing companies have to work on the same customer order.

*Institutions for Collaborations (IFCs).* While Bulgarian apparel producers compete intensely on price, quality and delivery, they have started to realize the benefits of industry information sharing and collaboration through trade associations. There are five large integrated industry associations with significant industry participation. The two leading associations are the Bulgarian Association of Textile and Clothing (BATEC), and the Association of Apparel and Textiles Exports of Bulgaria (BAATPE). Because the Bulgarian government’s trade and economic policy was dominated by the goal of EU accession, lobbying for protectionist trade policies was futile. Thus, the associations have largely focused on productive activities including coordinating news of latest trends in the world apparel industry; creating seminars for exchanging best practices and current demand trends; organizing the Bulgarian Apparel Expo; and advertising member companies in world apparel associations such as Euratex.
However, similar to the problems in the educational curriculum, the cluster participants have used the IFCs’ well-established communication links in the cluster to focus on quality, delivery practices, and cost, rather than brand development, marketing and innovation. High quality production is necessary but not sufficient for brand development: there must be an explicit brand development strategy. Unfortunately, none of the associations are showing significant activity in this area, which is critical for the cluster’s long-term success.

Fortunately, despite inaction by the IFCs and larger apparel companies, many entrepreneurs, especially Bulgarians returning from living abroad, have started branded apparel businesses. In fact, more than 65 new design houses in Bulgaria have emerged since 2002, all focused on high-end branded lines. The lack of participation by large companies also explains why most branded activity is in the high value, low volume segments such as wedding dresses. The active trade organizations provide a strong base to move the industry to even higher value-added branded activities. Hopefully, the high level of entrepreneurial activity in the branded market will serve as a catalyst for IFCs to change their focus.

International Competitors. Bulgarian apparel companies have adopted a successful niche strategy over the past decade, focusing on high quality, rapid delivery production. Bulgaria’s strategic positioning vis-à-vis its international competitors is illustrated in Figure 24. Bulgarian firms currently outperform Asian competitors in the high quality, fast delivery segment of the market. However, the Asian producers are overwhelmingly more competitive in the large quantity apparel that is not sensitive to delivery time. Fortunately for the Bulgarian producers, the high quality, fast

<table>
<thead>
<tr>
<th></th>
<th>Bulgaria</th>
<th>China</th>
<th>Turkey</th>
<th>Romania</th>
<th>Portugal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market share</td>
<td>0.67%</td>
<td>27.8%</td>
<td>4.7%</td>
<td>1.8%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Wage ($/hr)</td>
<td>1.8</td>
<td>0.4</td>
<td>2</td>
<td>N/A</td>
<td>4</td>
</tr>
<tr>
<td>Transport time to W. Europe</td>
<td>3 days</td>
<td>30+ days</td>
<td>3-5 days</td>
<td>3 days</td>
<td>1-2 days</td>
</tr>
<tr>
<td>Target Market</td>
<td>• Rapid delivery  • High quality  • Low volume</td>
<td>• High volume  • Long lead time  • Low cost</td>
<td>• Rapid delivery  • High volume</td>
<td>• Branded;  • Rapid delivery</td>
<td></td>
</tr>
<tr>
<td>Value added</td>
<td><img src="value_added_bulgaria.png" alt="" /></td>
<td><img src="value_added_china.png" alt="" /></td>
<td><img src="value_added_turkey.png" alt="" /></td>
<td><img src="value_added_romania.png" alt="" /></td>
<td><img src="value_added_portugal.png" alt="" /></td>
</tr>
</tbody>
</table>

Source: team analysis
delivery market extracts significantly higher prices, which enables the current trend of strong export growth and labour wage increases of 10% per year.

The neighboring countries of Romania and Turkey target the same niche segment as Bulgaria. However, due to the proximity of these countries within the Balkan region, a specialization trend has emerged, in which Romania focuses on higher volume, delivery sensitive production, Turkey has specialized in the lower cost production, and Bulgarian companies have specialized in higher value, lower volume orders. In fact, this regional cluster specialization was mentioned several times during our interviews. Apparently some large clients service their entire apparel line in the Balkans by splitting the different segments of the same order among the different country producers.

Finally, Western European apparel producing countries such as Portugal represent where Bulgaria aims to be. The manufacturers in Portugal have shorter delivery cycles than even the most responsive Bulgarian producers. Portuguese producers achieve cycle time from order to delivery of two weeks, versus Bulgarian producers’ 3-4 weeks. In addition, the Portuguese apparel cluster has a growing branded component. This higher value-added orientation supports wage levels of 210% of Bulgaria’s. As Bulgaria moves further up the value chain, Portugal proves that there is a model for success.

EU Accession. In 2002, Bulgaria signed the Association Agreement, which eliminated all tariffs for trade with EU member countries. Simultaneously, with Bulgaria slated for full EU accession, it began attracting FDI in the apparel sector. European companies have invested over EUR 260 million to open factories in Bulgaria in the past 8 years (Invest Bulgaria Agency). The increasingly sophisticated competition and increased access to capital resulted in a vibrant cluster that attracted entrepreneurs. The first Bulgarian design houses appeared in 2002, and by 2007 there were more than 65 design houses exporting branded products.
**Demand Conditions: weak but improving.** Demand conditions have traditionally been weak due to a relatively small domestic market (7.5 million people) with poor customers focused mostly on price. Moreover, from 1945 to 1989, Bulgarian exports had a guaranteed market in the Soviet Union; thus, the focus was exclusively production rather than marketing driven. The heavy reliance on export (85% of Bulgarian production is exported) has also contributed to a slower transition into local brand development. On the positive side, the focus on quality of production has caused Bulgarians to prefer Bulgarian brands and to have high quality expectations on the local producers. In addition, the strong economic growth accompanying Bulgaria’s convergence with the EU should continue to improve demand conditions.

6. **CASE STUDY: ROPOTAMO J.S. CO.**

Ropotamo J.S. Co. represents a best practice case in Bulgarian apparel production. Founded in 1981 as a state-owned enterprise, Ropotamo was privatized in 1997 and has since successfully transitioned to serve Western European markets. It currently produces one million pieces of clothing annually and has 850 employees.

Ropotamo has succeeded by continuously improving its technology and marketing functions. It has a fully integrated IT system, developed in collaboration with an IT software company, to process all data from production processing and monitoring. This has improved quality – it was the first Bulgarian apparel producer to be certified under the ISO9001 standard. The IT system has also allowed Ropotamo to reduce turnaround time to 3 weeks, and meet customers’ rapid delivery needs. In addition, Ropotamo has shifted towards higher value-added activities. It not only provides Cut-and-Made services but also owns private lines with its own design and finishing departments. Finally, the CEO Petko Shishkov was the president of one of the largest industry organization, BAATPE, and is still an active member.
Ropotamo nevertheless faces challenges to its continued growth and success. Shishko stated that while labour regulations have improved, the laws for hiring temporary workers do not allow him the flexibility to follow the demand cycle. Furthermore, he stated that finding qualified labour is becoming more difficult as the whole industry is booming, yet the labour pool is not increasing. Finally, finding qualified management personnel is also a key issue in moving towards a more marketing driven strategy. Therefore, the specific lessons that the cluster can learn from the Ropotamo's best practice case are:

- Continuous focus on decreasing cycle time can reduce the order-delivery cycle to under 4 weeks while using Bulgarian logistics providers;
- Directly working with members of the IT cluster can bring tangible benefits not only by increasing production and delivery efficiencies, but also by providing higher value add services such as late stage design modification and electronic exchange of designs; and
- Working closely with the industry organization benefits both the individual firm and the overall cluster.

On the other hand, Ropotamo still needs to focus on increasing its profit margins by more aggressively introducing branded lines (something they have just recently started doing) as well as partnering with design schools to further facilitate the in-house designs that will underpin their branding strategy.
Over the past decade, Bulgaria has used the external goal of EU accession and a common desire to avoid another financial crisis to push through difficult macro- and microeconomic policy reforms. Despite its success, Bulgaria remains decades away from its larger goal: economic convergence with the EU. Challenges include:

- **Macroeconomic**: the economy is potentially overheating and susceptible to external shocks, which could reverse FDI inflows or threaten the currency board.
- **Business competitiveness**: existing laws are not being implemented, corruption and legal issues remain and there is no cohesive framework to promote entrepreneurship.
- **Human capital**: Bulgaria’s R&D investment is very low, even by CEEC standards, and it lacks a highly skilled labour force.

These challenges, their underlying causes and accompanying recommended solutions are outlined in the table below.
While Bulgaria has already achieved EU accession, other concrete external goals remain, such as joining the euro-zone. In addition, the EU is still applying pressure to speed up the implementation of reforms. Bulgaria should utilize this opportunity. The priority focus areas should be reducing corruption and improving the legal framework, as these were the most deteriorating indicators on the BCI survey.

### 2. Cluster Level

**Challenges**

In order to fully harness the benefit of EU membership and improve its competitiveness, the cluster faces several challenges (Figure 26, left side). First, the Bulgarian apparel cluster’s current focus on production and Cut-and-Made orders provides little profitability to manufacturers and limits their financial ability to invest in technology. Second, the cluster relies too heavily on its low labour cost advantage, which will erode as Bulgaria converges to EU income levels. This threat will increase as non-EU countries geographically proximate to Europe, such as Turkey, Ukraine and North Africa, start specializing in similar high-end niches and improve their rapid delivery systems.

#### Figure 26. Strategy for Bulgaria’s Apparel Cluster

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Strategy to improve Bulgaria’s Apparel Cluster Competitiveness</th>
<th>Necessary improvement for Bulgaria’s Apparel Cluster</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current focus on production (CM/CMT) is low value-added</td>
<td>1. Improve Rapid Delivery and coordination with supporting clusters</td>
<td>A. Improve coordination among apparel and supporting clusters</td>
</tr>
<tr>
<td>With the convergence to EU, labour cost will become less competitive</td>
<td>2. Shift from CM/CMT production to Full Package (FP) service provider</td>
<td>B. Encourage knowledge sharing among apparel manufacturers of all levels</td>
</tr>
<tr>
<td>Educational curriculums are outdated</td>
<td>3. Develop Bulgarian brands and market for Eastern Europe</td>
<td>C. Increase fabrics and other materials manufacturers in Bulgaria</td>
</tr>
<tr>
<td>Not all the firms are taking advantage of proximity to market</td>
<td></td>
<td>D. Extend service offering capacity</td>
</tr>
<tr>
<td>Supporting industries (fabrics, logistics and IT) need coordination &amp; development</td>
<td></td>
<td>E. Upgrade education and training in marketing and brand management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F. Promote “Bulgarian Brand” to the world</td>
</tr>
<tr>
<td></td>
<td></td>
<td>G. Strengthen management skills in marketing and branding</td>
</tr>
</tbody>
</table>

Source: Team Analysis
Bulgaria’s Apparel Cluster: Microeconomics of Competitiveness

Third, despite the number of related educational institutions and graduates, the legacy curriculum does not produce internationally competitive designers and managers who can deliver services beyond production. Fourth, even though Bulgaria’s competitiveness lies in its relative proximity to the EU market vis-à-vis Asian players, many manufacturers have not taken full advantage of fast response and delivery. Finally, while the supporting clusters in fabrics, logistics and IT are strengths, these clusters are still in their development phase.

**Strategic Focus and Recommendations**

Bulgaria’s apparel cluster must focus on increasing productivity by adding economic value faster than the increase of its cost base, and faster than its competitor countries. To achieve this, the cluster should focus on the following activities (Figure 26, right side):

1. Creating a best-in-class rapid delivery system;
2. Shifting from a Cut-and-Made production focus to higher value-added services; and
3. Improving Bulgarian branding and marketing of products.

| Figure 27. Action Plan for Bulgaria’s Apparel Cluster Competitiveness |
|---|---|---|---|
| Strategy/Issues | Government | IFCs* | Firms |
| **1. Fast Delivery** | | | |
| A. Improve coordination among apparel and supporting clusters | Encourage cross-cluster collaboration through tax incentives | Organize forums for apparel, IT, and logistics clusters to improve the production efficiency and allow for rapid communications with customers | Develop standard package for rapid delivery tailored to apparel cluster in collaboration with IT and logistics clusters |
| B. Encourage knowledge sharing among apparel manufacturers | Create tax incentives for consolidations and subcontracting between leading firms and small firms | Expand membership | Increase sub-contracting from leading firms to small-scale firms |
| **2. Higher value-added services** | | | |
| C. Increase fabrics and other materials manufacturers | Attract FDI for related industries (fabrics, logistics, and infrastructure) | Coordinate R&D activities between fabrics and apparel clusters | Create partnership and JVs with suppliers |
| D. Extend service offering capacity | Incentivize R&D activities for fabrics (wool, synthetics) | Identify and share information about fabrics/materials suppliers in Bulgaria | Work with fabric producers for innovative materials |
| **3. Bulgarian branding and marketing** | Support training programs in materials sourcing | Offer regular and executive trainings in wider range of programs (esp. procurement) | More actively negotiate with customers to obtain Full Package contracts |
| E. Upgrade education and training program in marketing and branding | Enhance scholarships for marketing and branding studies abroad | Update curriculum at the professional schools to incorporate marketing and branding trainings | Provide inputs to IFCs for creating better educational programs |
| F. Promote “Bulgarian Brand” | Invite experts (including diaspora) to come to Bulgaria to help | Promote industry-wide projects (with firms, associations and educational institutions) for creating and managing Bulgarian brand and marketing | Collaborate with design schools to experiment with branded production |
| G. Strengthen management skills on marketing and branding | Offer international exchange programs for management | Organize workshops and trainings for managers in marketing and branding | Participate in continuous training and education |

*Industry associations and educational institutions*
Moving upstream (design) and downstream (marketing and retail) on the value chain is an ideal path for many apparel clusters around the world. While difficult, Bulgaria has a strong opportunity to achieve this goal, particularly for the Eastern European market. In order to capitalize on its current competitiveness, Bulgaria should place special emphasis on high-end items such as women's dresses, blouses and men's suits.

While these overarching strategic steps should be the general focus of the cluster, Figure 27 provides practical recommendations to the three main actors: firms, government and institutions for collaboration (IFCs), which includes both industry association and educational institutions. Figure 28 further shows the how each of the sub-strategies are positioned in terms of difficulty of implementation and their potential impact to the cluster. It also recommends a sequenced action plan that prioritizes the highest impact, relatively easy steps, such as updating educational curriculum and improving collaboration among apparel and supporting clusters. This will achieve quick wins—an essential prerequisite for the process to gain credibility with the cluster participants.

**Vision 2015**

Industry associations and the government should champion this action plan, and communicate to all cluster members a clear goal: “Vision 2015.” Vision 2015 is an overarching goal for the cluster’s progress by the year 2015 (Figure 29):

- 100 companies will be market leaders: branded producers performing their own procurement (full package) and reducing their order-delivery cycle to under four weeks (“A rating”);
- 500 companies will have transitioned into full package and rapid delivery (“B rating”);
The remainder of the companies will be able to perform rapid delivery (“C rating”); and

Other non-performing companies will be rated “D”, or failing status.

A public-private umbrella organization with representation from the five largest business associations, and from the Ministries of Economy, Labour and Education, will give annual ratings to each firm. This ranking will be publicly available to both firms and customers, creating an incentive for each firm to progress towards leadership status. Participation in this ranking will be voluntary; however, aggressive promotion material of the cluster including the ranking itself, funded by the member firms and the government, will be sent to large retailers across Europe.

Member firms will also evaluate the umbrella organization, and have the ability to elect or remove board members. Adopting this sequenced action plan should create a mechanism to achieve Vision 2015.

Figure 29. Vision 2015 for Bulgaria’s Apparel Cluster
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