SOFIA

ECONOMY AND INVESTMENT PROFILE

2016

REPORT

PREPARED BY

INSTITUTE FOR MARKET ECONOMICS

for

Sofia Investment Agency

Table of contents

Summary 3

1. Macroeconomic profile 11

1.1.Gross domestic product 11

1.2. Economic structure 12

1.3. Investment 15

1.3.1. Fixed tangible assets (FTA) acquisition expenses 15

1.3.2 Foreign direct investment 18

1.3.3. EU funds 21

2. Workforce profile of Sofia Municipality 22

2.1 Demography 22

2.2. Education 24

2.3. Labor market 27

2.3.1. Workforce 27

2.3.2 Employment 28

2.3.3. Salaries 30

2.3.4. Unemployment 31

2.3.5. Job vacancies 32

3. Local taxes and fees 33

4. Infrastructure 34

4.1 Transport Infrastructure 34

4.2. Information infrastructure 35

5. Sofia as business destination: a comparative regional analysis 36

6. Perspectives for development of the district of Sofia (capital city) 38

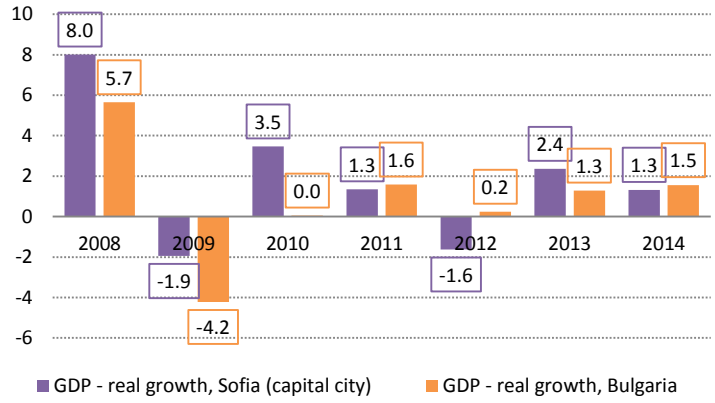
Addenda 42

Sources 45

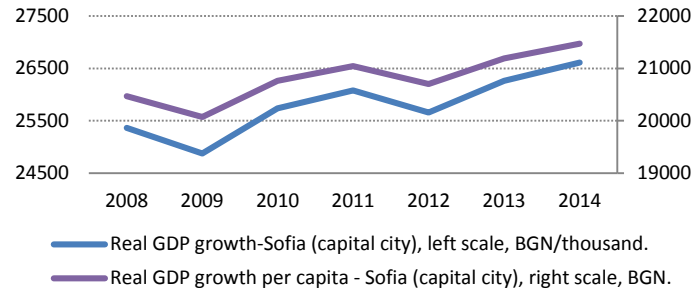
Abbreviations	
CPC	Commission for Protection of Competition
FDI	Foreign direct investment
FTA	Fixed tangible assets
GDP	Gross domestic product
GVA	Gross value added
HEI	Higher education institution
NEA	National Employment Agency
NSI	National Statistical Institute
PQA	Professional qualification acquired
REI	Regional Education Inspectorate
RIA	Road Infrastructure agency
SSGE	Secondary school of general education

Summary

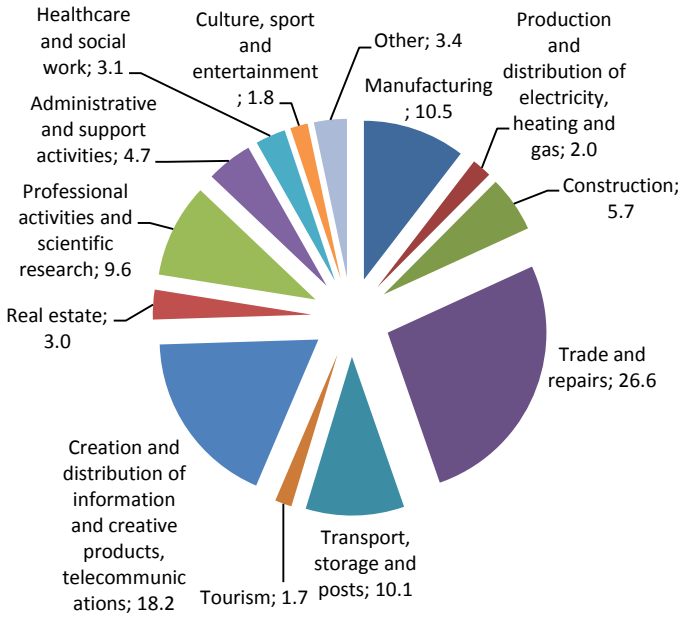
Real GDP growth: Sofia (capital city), Bulgaria, %



Real GDP growth in Sofia (capital city)



Value added at factor costs of of non-financial enterprises in Sofia (capital city), 2014, %

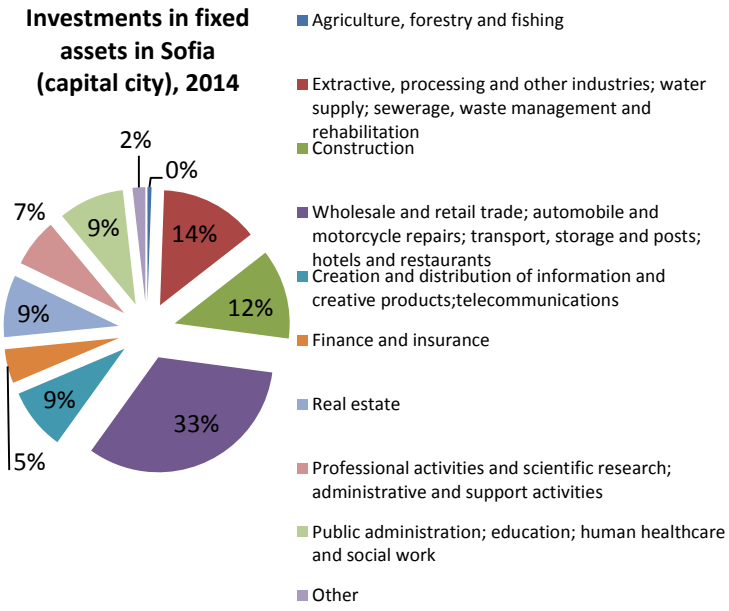


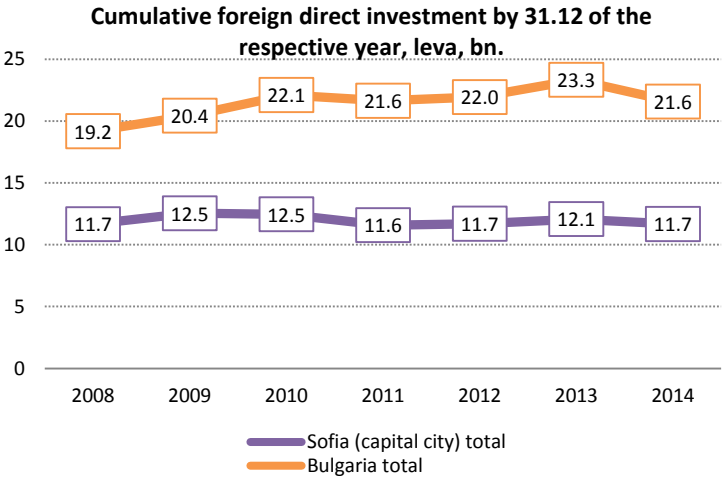
Sofia (capital city) is the biggest district economy in the country. About 39% of Bulgaria's GDP is produced in Sofia. The contribution of Sofia municipality to the national economy has been growing at a moderate but stable rate in recent years, which reflects the continuing concentration of economic activity in the capital. **Sofia provides to its inhabitants the highest living standard** compared to the rest of the country. Sofia's GDP per capita of the local population has traditionally been the highest in the country (24 982 BGN in 2014), and since 2008 it has been from 2.2 to 2.3 times higher than the average national values and over 4 times higher than GDP in the district of Silistra, the least developed district in the country.

Although Sofia was not spared by the economic crisis of 2008-2009, the recession was not as deep as that in national production by far. Besides, **the capital city managed to overcome the recession's consequences as early as 2010** which indicates the resistance of the capital's economy to changes in the economic cycle and shocks coming from outside.

The crisis left its imprint on the structure of Sofia's economy. The most significant change in that structure that resulted from the recession of 2009 was the crisis in construction. That sector shrank to almost half its size – to 5.7% of the local economy in 2014. Simultaneously, **processing industries increased their weight in the local economy** after considerable investment in pharmaceuticals, car parts, cosmetics, optics etc. By 2014 processing industries had a share of 10.5% or over 2 percentage points more than its share prior to the crisis.

Other sectors that have developed rapidly after 2009 are IT services (mostly software design and development), and professional activities. The latter include outsourcing over the entire spectrum of business services: advertising, marketing, human resources, accounting etc. The IT industry's share of the capital's economy grew to reach 18.2% in 2014, and that of the sector of professional activities – to 9.6%. These sectors find favorable growth conditions in the capital because of the combination of an educated workforce, foreign languages proficiency and low labor expenses.





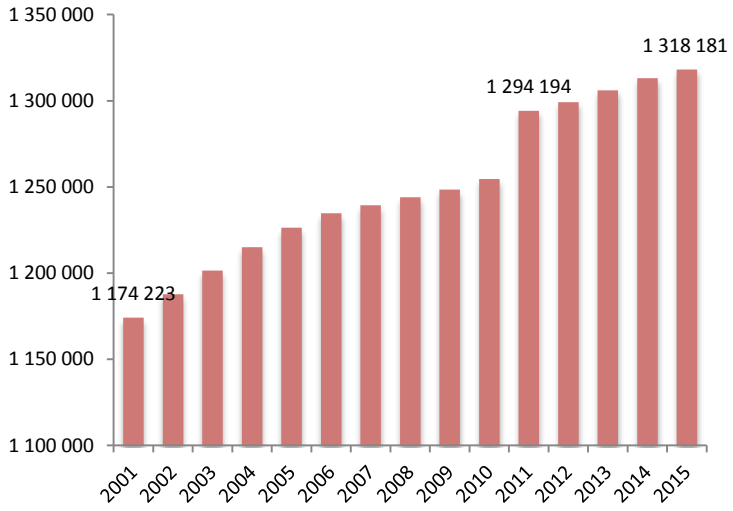
Being the country's chief economic center, no wonder **Sofia also attracts about half of the total investment in the country**. According to recent data about 49% of fixed asset expenses and about 54% of foreign direct investment were made in the capital city. By the end of 2014 it had attracted almost 12 bn. euros or over 9000 per capita, which was about three times more than the country average.

As services dominate the profile of the municipal economy, it is no surprise that in Sofia most of the investment is aimed at that sector. The services subsectors that attract most investment in fixed assets – about 1/3 of all, are trade, repair services, transport, storage, posts, hotels and restaurants. FDI figures also indicate how attractive this sector is for investment – about 30% of all FDI until 2014 went into it. This is due both to high income and consumption in the capital and to the fact that the city is a developed transport and logistics center.

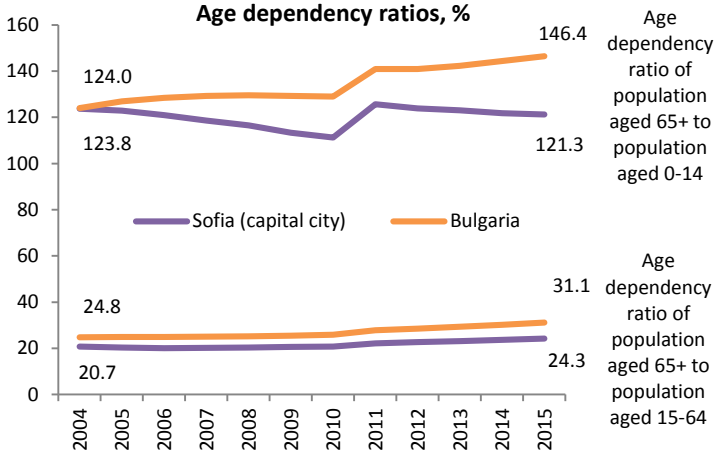
Among the other most attractive sectors for foreign investment in the capital are industry and utilities, real estate, IT and the outsourcing industries. And while investment in real estate was mostly made before the crisis, investment in industry, IT and business services has been accelerating precisely in the last few years in response to the rapid growth of those sectors.

Sofia is also characterized by good EU funds absorption: a basic source of public investment. By the end of 2015 the capital had absorbed BGN 2.8 bn. The largest beneficiary with BGN 1bn. is the municipal Metropolitan company, which runs the capital's underground system

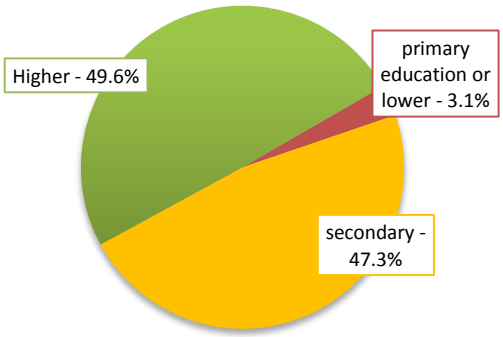
Annual average population, Sofia (capital city)



Age dependency ratios, %



Structure of the population (20-64) by education in Sofia (capital city)



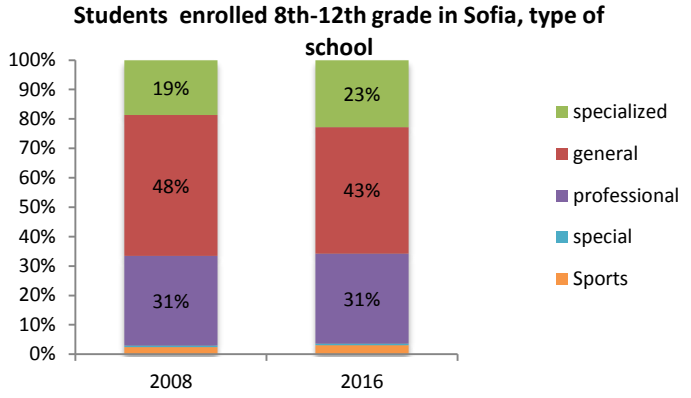
As for the workforce profile, **Sofia is characterized by a relatively young and highly educated workforce**, as well as the best demographic tendencies in the entire country. The capital is among the 6 districts in Bulgaria where the number of settlers exceeds that of leavers.

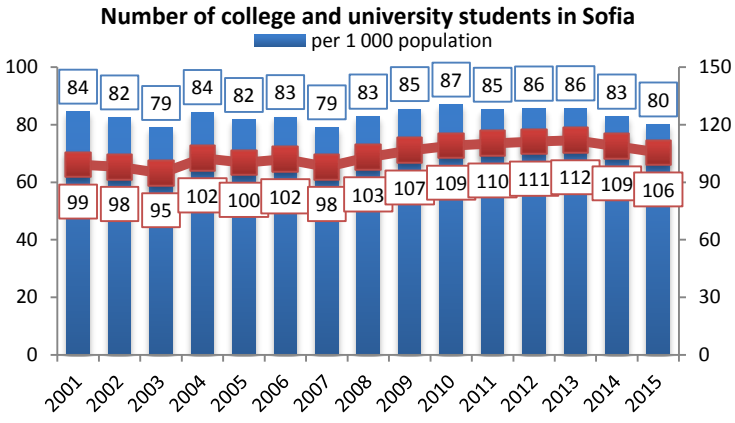
As a result, the capital **not only keeps concentrating a growing proportion of the country's economic activity, but of its population** as well. The natural growth, though negative like that of the other districts, is the most favorable in the country: 1.7 **‰**in 2015. Population ageing is also relatively slow, with the best age dependency coefficients in the country.

Apart from attracting economically active people from other districts, the capital is also characterized by the concentration of highly qualified population. While the country average proportion of college graduates is 28%, in the capital it is almost double that size, 50%. The difference in the share of people with basic or lower education is even greater: the population aged 25-64 with basic or lower education is 3% in Sofia, while it is 18% in the country as a whole. That shows that the capital's population is mostly educated and the labor market consists of more qualified people than in the country's other districts or in the country as a whole.

Sofia's education system is very well developed. Being the district with the largest population and the greatest number of children, Sofia has the greatest number of schools of all types and educational levels. **School leavers in Sofia also perform best at matriculation exams,** traditionally gettingthe best average grades and the lowest share of fail grades.

In recent years about 10 thousand students graduate from secondary schools annually. The share of those graduating from professional technical schools is typically lower in Sofia which reflects the relatively lower share of industry in the capital. While the country average of secondary school leavers contains almost 50% of professional and vocational school leavers, in Sofia that share is about 1/3. **According to the planned acceptance figures for 2016/17 school year the greatest number of students got enrolled in training in the following professions: transport mechanic, computer system technician, communications systems technician,**





economist, and electrician. They are 1/3 of all enlisted, which to a considerable extent reflects the capital's economic profile.

On the other hand, preferences for foreign language specialized secondary schools are increasing. Almost 70% of the students in specialized schools go to schools specializing in foreign languages – English, German, French, Spanish etc.

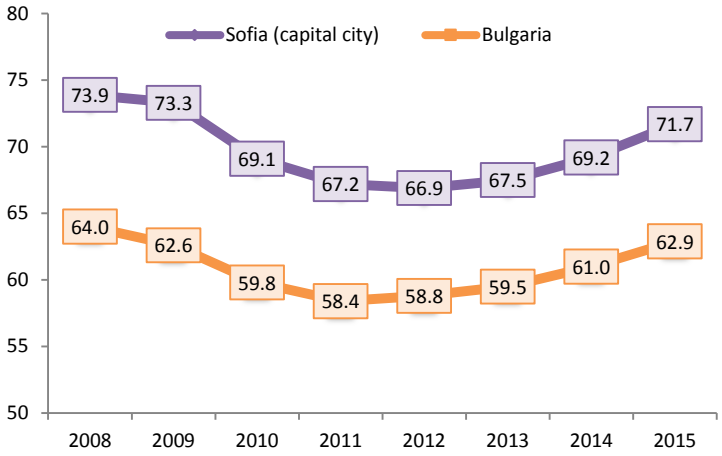
As for higher education, 23 of all 51 accredited higher education establishments in the country are located in Sofia. What is more, **all three universities with the top accreditation ranks (The Medical University, The University of National and World Economy and Sofia University St Kliment Ohridski) are located in Sofia**: they attract the greatest number of students as well as the best ones. The number of students is about 100 thousand or over 40% of their total number in Bulgaria. A great part of the students which come from other districts stay in Sofia after graduation: one more factor for the good demography.

With that concentration of highly educated working age population it is no surprise that **employment in Sofia is the highest (71.7% in 2015) while unemployment is the lowest** (3.1%) in the country.

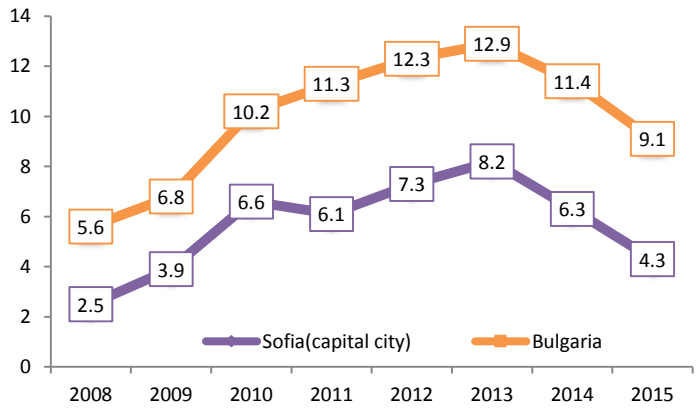
People employed in trade and automobile and motorcycle repairs make up the greatest share, over 180 thousand, or ¼ of the overall employment in the capital. In transport, storage and posts, and in the processing industries, there are about 70 thousand people in each sector but employment in both sectors suffered from the crisis. In its aftermath, however, the number of jobs in IT and professional activities has increased considerably as a consequence of the boom in these sectors in recent years. Employment in administrative and support services has also been on the rise.

Due to the highest employment levels in the country and the prevalence of sectors that demand high qualification, salaries in Sofia are higher than the country average. In 2014 **the average annual salary in the capital was over 13 thousand BGN, higher than the country average salary by almost a third.** During the last few years the greatest salary growth has been registered in two of the fastest developing sectors, IT services and professional activities, where salaries rose by BGN 9 thousand (+53%) and 7 thousand (+63%) respectively between 2009 and 2014.

Annual average employment rate of the population aged 15-64, %, NSI



Annual average unemployment rate of the population over 15 years of age, %, NSI



At the same time, **unemployment in Sofia is mainly frictional** or voluntary. This means that it results from the natural movement of people from one job to another or from the relatively generous unemployment benefits. This can be seen from the unemployment figures: out of 18 thousand unemployed people, over 40% or over 7.5 thousand are college graduates and 33% have secondary school level professional training. Besides, almost 60% or over 10 thousand of the unemployed have some kind of specialty (mainly in the services, transport, economics and law). Having in mind the specialization and the relatively high educational level of those registered as unemployed, it is not surprising that **only 10% of the unemployed have been registered for over a year** – with a country average of 40%.

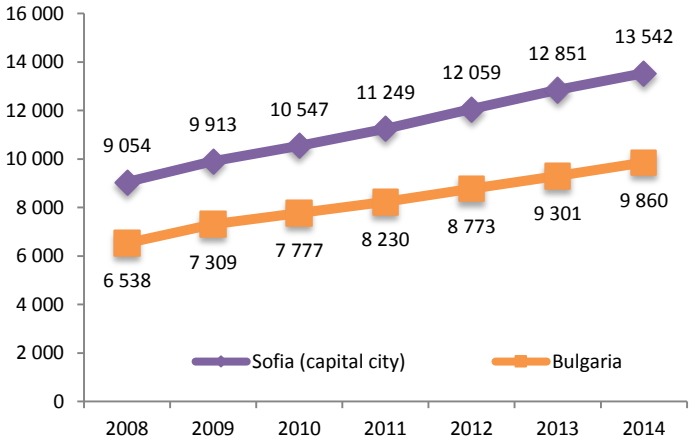
Apart from an educated work force, **Sofia also has a relatively good infrastructure connectivity to offer.** It is one of the main railway hubs in the country. It is part of three European transport corridors and the starting point of several motorways that connect the capital with the Black Sea coast and the national borders with Turkey, Greece and Serbia. The construction of motorways Trakia (connecting Sofia and Burgas), Lyulin (from Sofia ring road to the Daskalovo junction) and Maritsa (from Daskalovo to the Turkish border) is completed at this point, while the motorway to the Greek border is about halfway completed.

The biggest airport in Bulgaria is also found in Sofia. Sofia airport has two passenger terminals and two cargo terminals. The total capacity of the cargo terminals is 20 000 tons annually, and that of the passenger terminals is 4.6 m. passengers annually.

Sofia is also the only city in the country with an underground system; the underground currently carries about 350 000 passengers daily and is in the process of expansion. Last but not least, Sofia can offer a good internet infrastructure, at a speed among the highest in Europe, while over ¾ of the population aged 16 to 74 has access to and regularly uses the internet.

The local tax environment in the capital is stable and predictable. None of the basic local taxes and fees has changed in the last 5 years. The rates of most local taxes and fees are similar to those in the other district centers. Only the waste collection fee and the patent tax for retailers stand out with

Annual average gross salary of people employed full time and part time (BGN), NSI



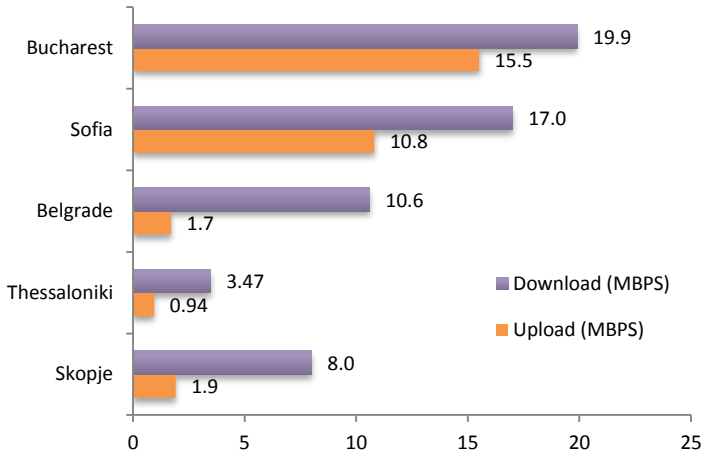
relatively higher rate.

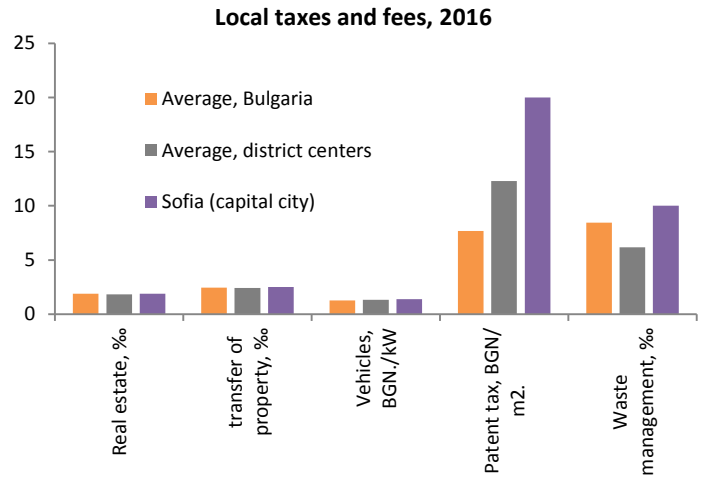
Compared with its main competitor destinations in the region, Sofia has a number of relative advantages. In the first place these are the low proportional direct taxes: a flat-rate corporate and personal income tax of 10%. The same tax rate can only be found in Skopje; rates are higher in all other countries in South-eastern Europe. The low utilities and rental expenses, the lowest in the region, are another key advantage of Sofia. Salary rates and labor costs as a whole are comparable with those in the other large cities in the region, with the exception of Thessaloniki. Internet speed and ease of access are also among Sofia's advantages.

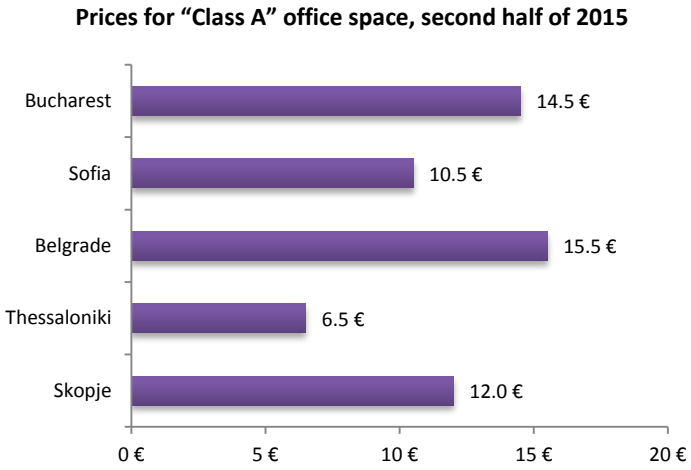
Density of railway lines km/100 km^2 territory

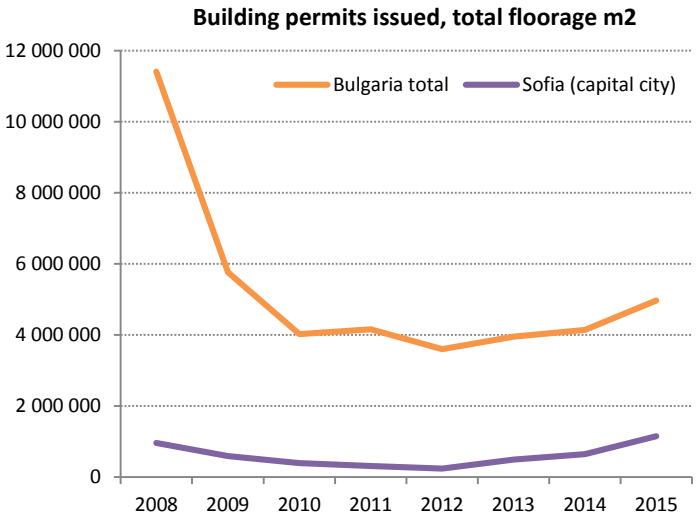
	2008	2009	2010	2011	2012	2013	2014
Sofia (capital)	15.0	15.0	15.0	13.8	13.8	13.6	12.8
Bulgaria	3.7	3.7	3.7	3.7	3.7	3.6	3.6

Average internet speed, MBPS, as of July 20, 2016







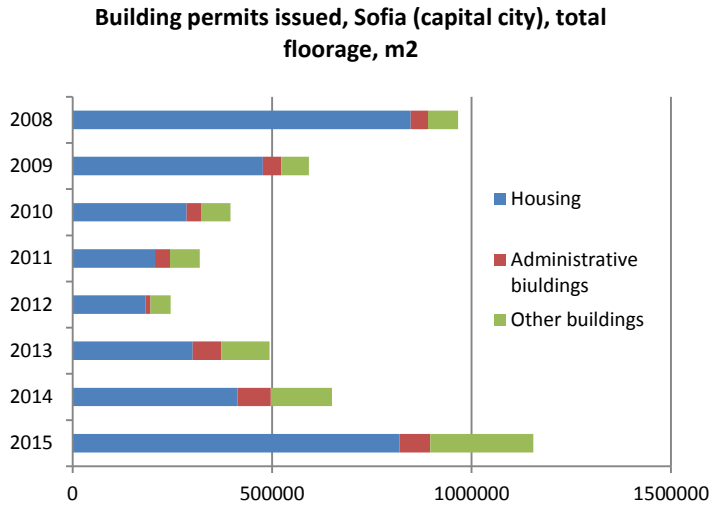


On the whole, prospects for Sofia's development are positive. **The city will keep on concentrating a growing share of the country's economic activity** because of the positive demographic processes in it and its leadership in the fastest growing sectors

The highly qualified workforce will keep attracting investment to the rapidly growing IT industry, to outsourcing of business services sectors, plus some industrial activities with relatively high added value. This claim is also supported by high investment figures in these sectors in recent years.

Sofia is also very well positioned for the development of certain new forms of economic relations, such as the services of the digital and sharing economy. This is connected with the suitable IT infrastructure – highly educated people, high internet speed and numerous IT companies and specialists, and with the large local population.

The concentration of population and businesses in the capital and the continuing local population



growth provide a good environment for the development of trade; of transport, storage and posts; and of tourism. The construction sector also has all prerequisites for growth in the coming years, albeit at a more moderate rate than that before 2009. The factors in this tendency are the natural growth of the city due to the influx of people from other parts of the country and the concentration of business activities.

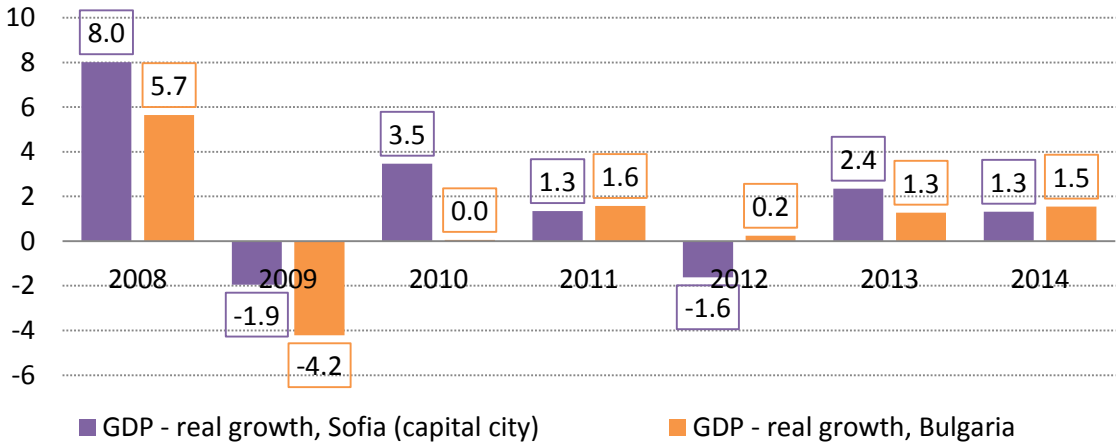
1. Macroeconomic profile

1.1. Gross domestic product

Sofia (capital city) is the largest district economy in Bulgaria. The gross domestic product (GDP) of the district was BGN 32.8 bn. in 2014, or about 39% of the national GDP. The contribution of Sofia municipality to the national economy has been characterized by a moderate but stable growth in the last few years: by way of comparison, the capital city produced 37.5% of the nation's GDP in 2008. This tendency reflects the ongoing concentration of economic activity in the city, as well as the growing importance of Sofia for the national economy.

Apart from being the largest economy, **the capital city provides the highest living standard to its inhabitants compared to the other parts of the country.** GDP per capita has traditionally been the highest in the country, and since 2008 it has been 2.2 to 2.3 times higher than the country average. If incomes in Sofia are compared to those of the poorest district, they are a stable 4 times higher. Thus, for example, Silistra being the district with the lowest GDP per capita, income per capita in the capital was about 4.3 times higher than that in Silistra.

Real GDP growth: Sofia (capital city), Bulgaria, %



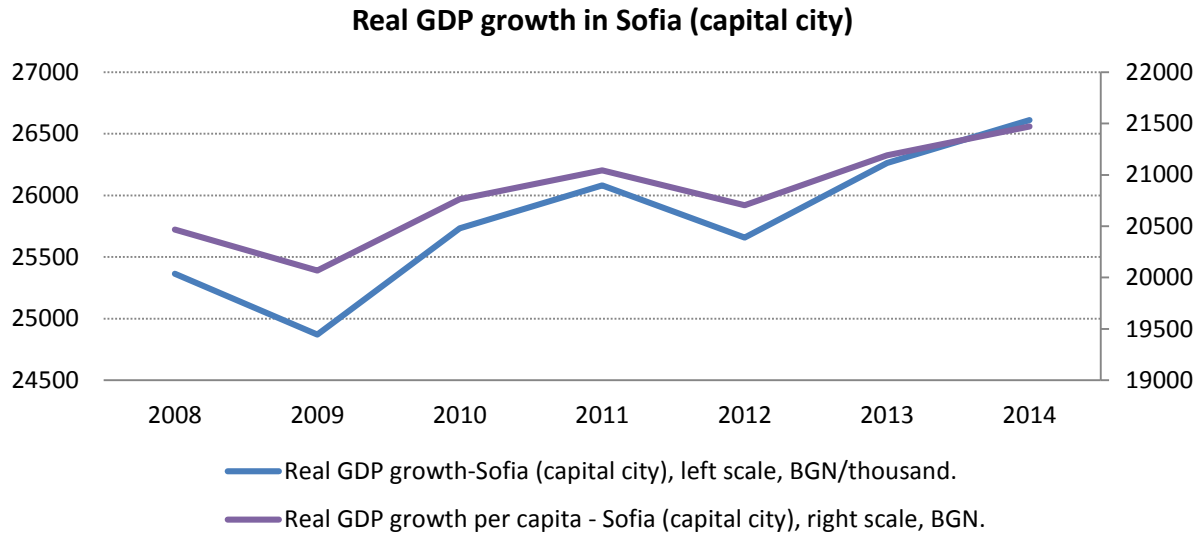
Source: NSI, IME calculations

Even though the capital, like most of the country, was not spared by the economic crisis of 2008-2009, the **recession in it was not so deep in comparison with the drops in production nationally**. Nominally, GDP has even continued its growth for the entire duration of the period since 2008. Still, the real[1] GDP of Sofia shrank by 1.9% in 2009. Compared to the national GDP shrinking by 4.2% in that year, the recession in Sofia was more than two times shallower.

Unlike the rest of the country where after 2009 recovery was stable and GDP registered a stable growth in the next few years, **the 2009 recession in Sofia was followed by a second shrinking in aggregate output in 2012**. That pattern of economic development after 2008 was identical with the

[1]i.e. after GDP is deflated by the implied deflator of the national GDP for lack of regional or district deflators or price indices.

dynamics of the European economy which was likened by many analysts to the letter W, meaning that the initial drop in production in 2009 was followed by another, albeit lower, drop in 2012. That parallel movement of the Sofia economy and the European economy implies that the economic cycle of the capital is much more strongly connected with the rest of the EU than the rest of the country.



Source: NSI, IME calculations

It is interesting to note also that **Sofia's economy overcame the consequences of the economic crisis as early as 2009.** More specifically, the 2009 GDP drop was overcome and GDP reached its pre-crisis levels as early as 2010 in real terms, that is, if data is adjusted for price changes. This holds for both the aggregate output and the GDP per capita. That dynamics was to some extent predetermined by the fact that the crisis in Sofia was less severe by far than it was in the greater part of Bulgaria. At the same time the fast recovery from the crisis in Sofia shows how stable and adaptable the capital's economy was to changes in the economic cycle and shocks coming from outside. That exceptionally fast recovery is even more remarkable in view of the fact that the capital was one of the main centers of the construction boom prior to 2008, which inevitably led to an abrupt downsizing in the sector after 2009.

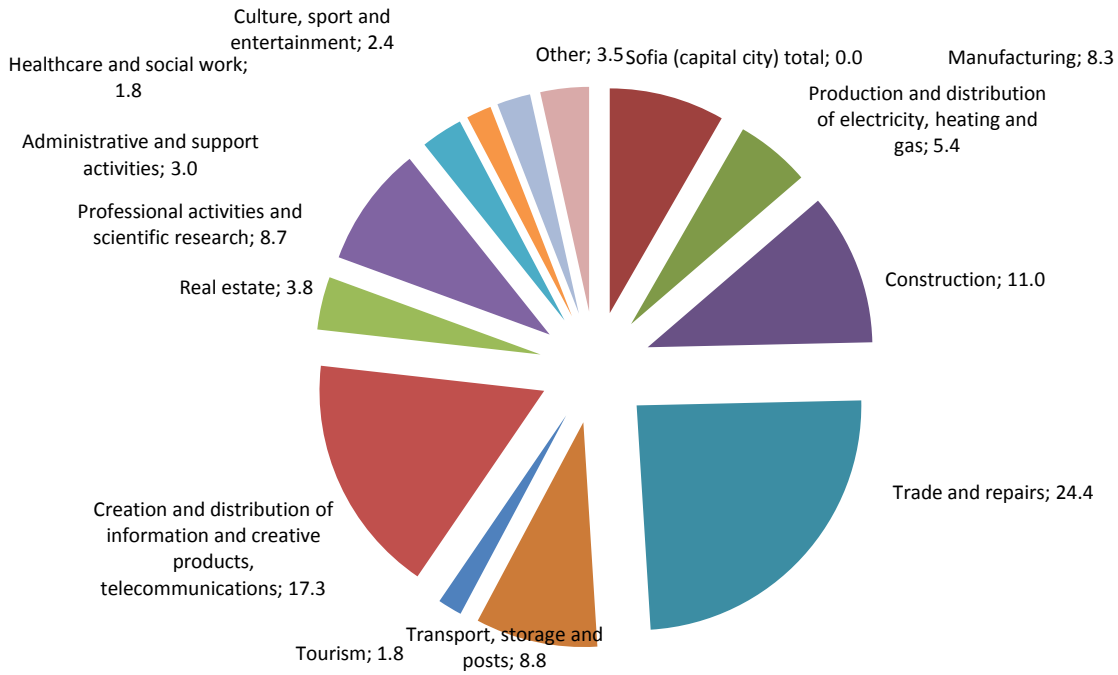
1.2. Economic structure

The structure of the capital's economy is dominated by the services sector which accounts for 85.9% of the district's GDP. Industry contributes another 13.9% and agriculture has a symbolic share of 0.2% (2014 figures).

The crisis left its imprint on the capital's economic structure as well. Before the crisis the wider industry sector reached a share of around and even over 20%, while the services reached about 80%. The reason for this restructuring and the loss in significance of the industry sector should be sought in the construction sector which counts as an industry in GDP statistics. Construction was among the sectors that suffered the worst losses from the crisis and that fact was reflected in the wider industry sector's contribution to the gross added value of the district's economy. At the same time several services sectors – mostly the IT industry and the outsourcing of business services – grew rapidly after

the crisis which increased the share of the services in the gross value added of the district economy. That restructuring of the district's economy following the crisis of 2009 can also be seen in the figures

Value added at factor costs of non-financial enterprises, in Sofia (capital city) 2008, %

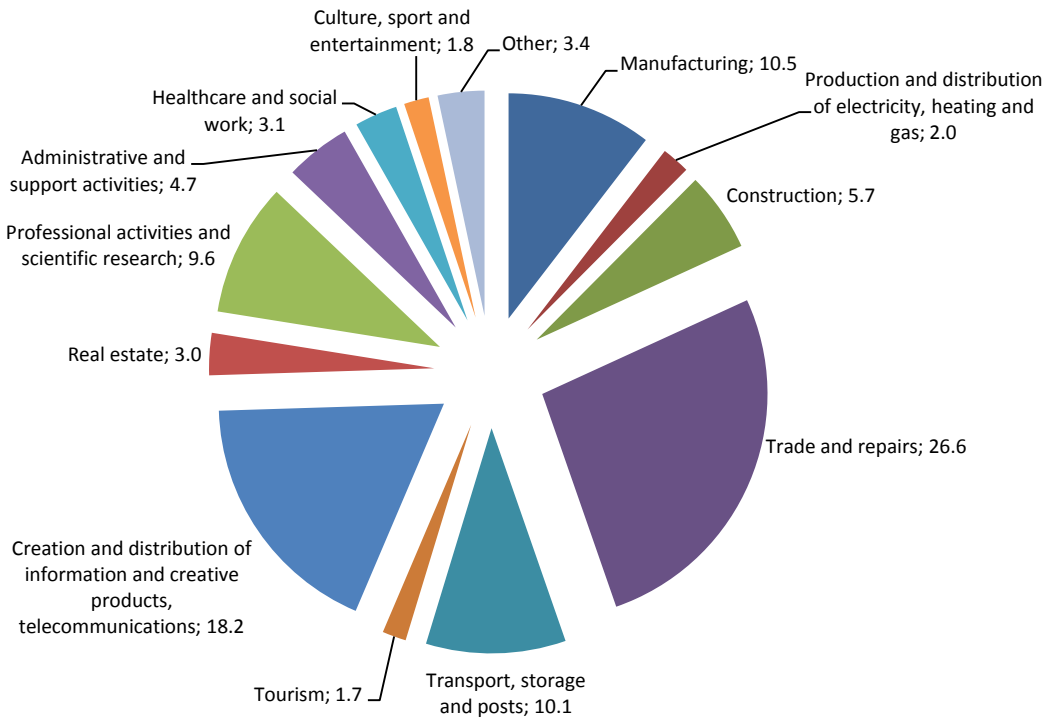


about non-financial enterprises in the capital. Statistics on value added at factor costs provides valuable information about the structure of the local economy's real sector.

Source: NSI, IME calculations

The most significant change in the structure of Sofia's economy as a result of the 2009 recession

Value added at factor costs of of non-financial enterprises in Sofia (capital city), 2014, %



was the crisis in construction. As the bubble burst in construction and the credit market tightened, the sector shrank to almost half its size, its 11% share of the local economy shrinking to 5.7% in 2014. The other sector that lost its position in the local economy in the last few years was production of electricity, steam and gas, the share of which went down from 5.4% in 2008 to 2% in 2014.

Simultaneously, **the processing industry increased its share** in the local economy after considerable investment in both new production facilities and in existing ones in pharmaceuticals, car parts, cosmetics, optics etc. By 2014 the processing industry had a share of 10.5% in the capital's economy: an increase of 2 pp compared to the period before the crisis.

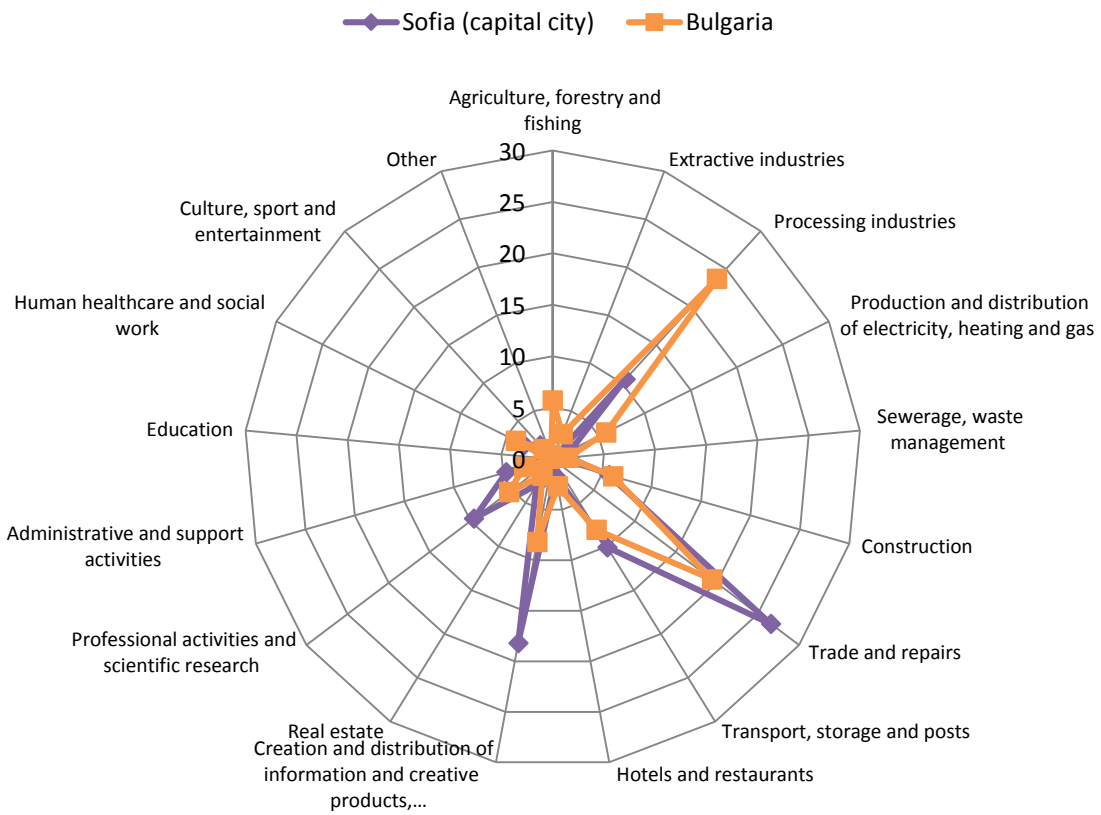
The figures show clearly that **Sofia (capital city) keeps "riding the crest of the wave" of economic development in Bulgaria.** This is due to the ability of the local economy to attract and develop the type of businesses that grew most vigorously after the crisis, including some in the processing industries. Other "new" sectors which underwent a rapid development after 2009 are IT services (mostly software development) and professional activities. The latter include the outsourcing of practically the entire range of business services – advertising, marketing, management, human resources, accounting and auditing, architectural and engineering services, customer services (including call centers) etc. **Professional activities find good conditions for growth in the capital** due to the combination of a comparatively highly educated workforce (including technical qualification), widespread foreign language proficiency and relatively low labor costs compared with their analogous levels in the other EU member countries and most of the Balkan region (see below for details).

The IT industry is part of the creation and distribution of information and creative products; telecommunications sector and it has been precisely the development of this industry in recent years that accounts for the growth of this sector's share in the local economy to 18.2% in 2014 from 17.3% six years earlier. The sector of professional activities and scientific research on its part increased its share in Sofia's economy from 8.7% in 2008 to 9.6% in 2014. Apart from these two, most of the service sectors also improved their positions in the local economy. This holds for wholesale and retail trade and repairs, transport, storage and posts, healthcare and social work, administrative and support services.

Compared with the national economy, **the structure of the non-financial sector in Sofia (capital city) exhibits considerable differences, which illustrate to a great extent the relative advantages of Sofia municipality** over the rest of the country. For example, Sofia's economy is dominated by trade and repairs on the one hand and by the distribution of information and creative products and telecommunications on the other. Trade and repairs make up over ¼ of the capital's economy compared with less than 1/5 of the national economy. Creation and distribution of information and creative products plus telecommunications have a share of over 18% or more than twice the country average figure.

The main explanation as to why these sectors' weight in the local economy far exceeds all others lies in the high income and the concentration of population in the capital which entail higher purchasing power and consumption expenditure than those in the rest of Bulgaria. The concentration of the IT industry and the telecommunications market on its part is the key factor underlying the two times larger share of creation and distribution of information and creative products; telecommunications.

Structure of the non-financial sector in Sofia (capital city) and Bulgaria, %



Source: NSI

It is also worth noting that professional activities and scientific research hold a share in the Sofia economy that is close to two times bigger than the one in the national economy – 9.6% versus 5.3%, respectively. The reason for this is the recent boom of the outsourcing industry in Sofia, not least thanks to substantial investment in this sector (see below for details).

1.3. Investment

The structure of investment in the capital differs considerably from that in the country as a whole, the differences being determined to a considerable extent by the structure of Sofia municipality's economy. As the services dominate the profile of the municipal economy at the expense of an almost non-existent agriculture and an industrial share considerably lower than the country average, it is no surprise that most of the investment in Sofia goes to the service sectors.

1.3.1. Fixed tangible assets (FTA) acquisition expenses

Expenses for the acquisition of fixed tangible assets (FTA) are among the chief measures for investment activity.

These expenses in Sofia (capital city) equaled BGN 8.2 bn. in 2014 and were commensurate with its economy's weight in the national economy, reaching about 41% of all FTA expenses in the national economy.

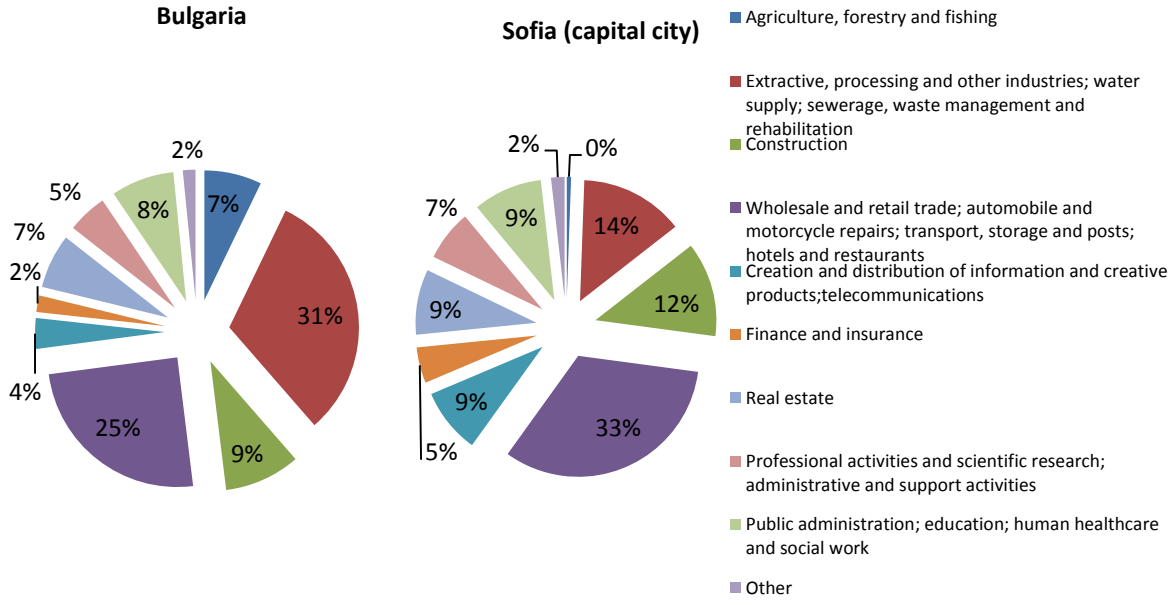
- **By sector**

The sector distribution of FTA expenses in the capital to a considerable extent reflects the structure of the local economy.

About 86% of the expenses for FTA acquisition in Sofia municipality are generated in the services sector (2014). The local economy's sector with the highest FTA acquisition expenses – about 1/3 of all – is trade, transport and storage, posts, hotels and restaurants. This can be explained with both the high incomes that feed consumption in Sofia and with the fact that Sofia is a developed center of transport, logistics and tourism and keeps attracting investment to such businesses.

Industry, on its part, has a share of about 14% of FTA investment in the capital, while the share of construction is about 13%. Compared with these figures, the country average expenses on FTA acquisition are about 35% in industry and about 9% in construction. The relatively higher construction activity in the capital can be attributed to the ongoing growth of the city and its accompanying construction of business space, housing and infrastructure. The fact that many building companies are registered in the capital should not be underestimated, either.

The finance sector also attracts relatively more investment in the capital compared with the country average figures which can be accounted for by the high incomes and the relatively high financial culture of the population, as well as the concentration of business activity and financing needs in Sofia.



Source: NSI

Apart from the investment profile's characteristics mentioned above, Sofia is also characterized with a relatively high share of investment in the sector "creation and distribution of information and creative products; telecommunications". The share of investment in this sector is about 9% compared with less than 5% for the country. The reason is mainly the fast growth in the IT industry and software development companies in the capital, which, as can be seen from the data, also register some serious investment in fixed assets.

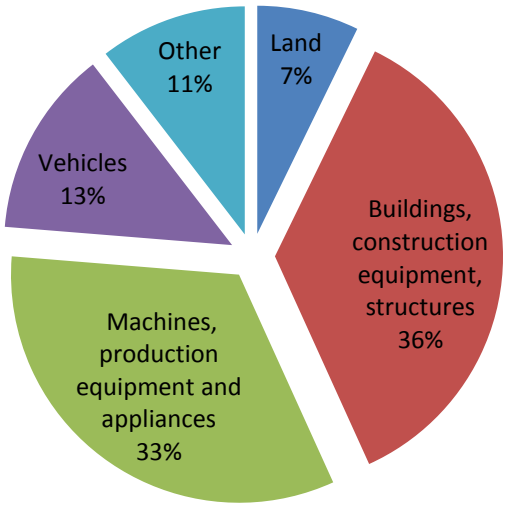
Another sector which has been developing very fast after the crisis of 2008-2009 is the outsourcing of business services. This branch is developing vigorously both in the capital and in some other cities in the country. Services that are outsourced belong to the entire spectrum of professional activities: advertising, marketing, engineering, architecture, human resources management, customer service, legal services, accounting etc. The country's chief advantage in outsourcing includes the relative low labor cost and the educated workforce in big cities, particularly the widespread competence in foreign languages. FTA investment in the "Professional services and research, administrative and support activities" sector is aimed mainly at the outsourcing industry. In the capital investment in this sector was about 7% of the total investment figure for 2014, while in the rest of the country their share was relatively lower", about 5%, which comes as one more illustration of the strong development of this branch in the capital in recent years.

Investment activities in Sofia (capital city) slowed down considerably after 2009, exhibiting the same tendencies that characterized the national economy as a whole. Compared to their peak in 2008, FTA expenditure went down by 39% in 2014, the drop affecting all sectors (except agriculture, forestry and fishing). Sectors worst affected by the crisis included real estate, where in 2014 expenditure was three times less than 2008, industry – about 2 times less, and construction – lower by 37%.

- **By type**

Both before and after the crisis the main part of the FTA expenses of non-financial enterprises went into buildings, building equipment and constructions: about 46% of all FTA expenses in 2014. Machines, equipment and appliances come second with about ¼ of all FTA expenses, followed by vehicles (14%).

FTA expenses, Sofia (capital city), 2014, %



Source: NSI

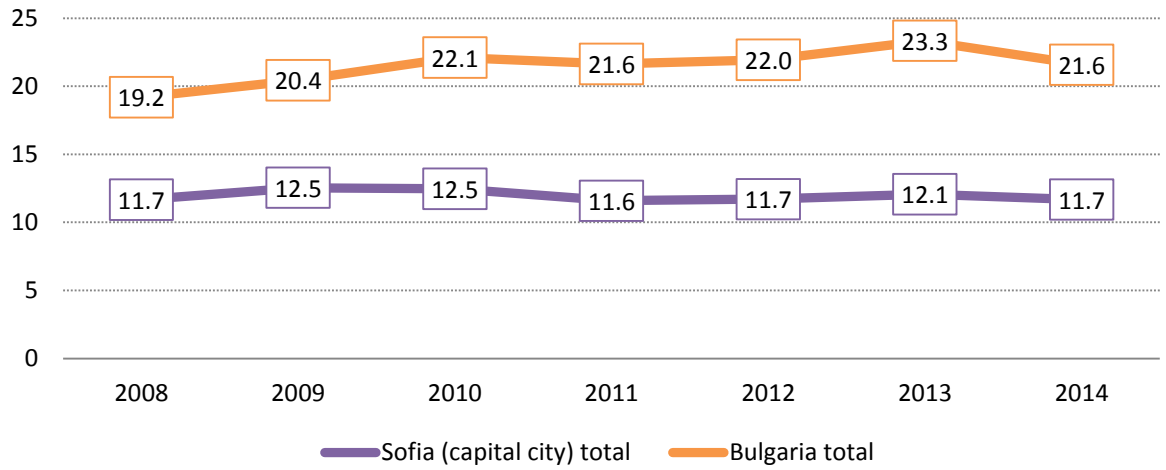
Though all types of FTA expenses shrank after the crisis, land expenses suffered the most serious blow, shrinking from BGN 2.1 bn. in 2008 to 461 m., or about 78%, in 2014. The doubtless reason here is the downward revision in construction and the subsequent decline in demand for development land. Expenses for machines, equipment and appliances also declined more than two times, from BGN 4.0 bn. in 2008 to 1.6 bn. in 2014, which can be attributed to the overall slowdown of economic and investment activity after 2009.

On the whole, the processes connected with FTA acquisition expenses in Sofia are similar to the general dynamics in the country. **Unlike that general dynamics, however, expenses for machines and equipment have traditionally been a smaller part** of the overall investment; this was true both for the period of rapid development till 2008, and the period of recession and recovery that followed. An explanation can be found first and foremost in the relatively smaller share of industry in the capital's economy, which entails the respective smaller share of investment in machines and equipment compared with the country average.

1.3.2 Foreign direct investment

The capital is the most attractive destination for foreign direct investment (FDI) in the country. About 54% of FDI in the country so far has come to the capital. Towards the end of 2014 cumulative investment in Sofia amounted to 11.7 bn. euro or 8 857 per capita of the capital's population. In comparison, the average level of attracted investment in the country was almost three times lower – 3 007 euro per capita.

Cumulative foreign direct investment by 31.12 of the respective year, leva, bn.

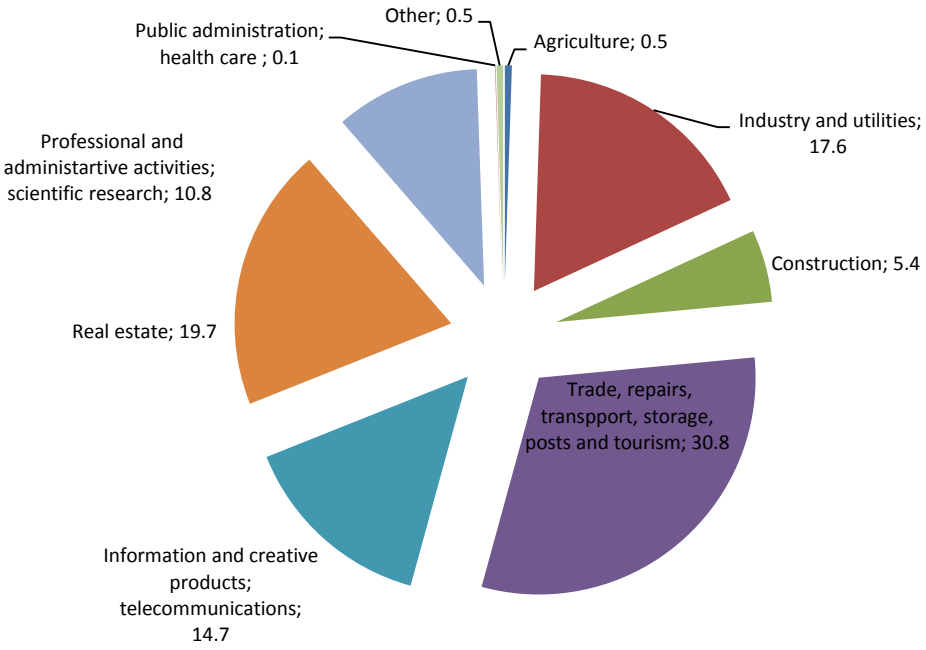


Source: NSI

The largest recipient of FDI in the capital is the wider sector of trade, transport and tourism. With a share of about 30% in the real sector of the capital's economy, it attracted a similar share of foreign investment, 31%, until 2014. The second largest recipient of foreign investment is the real estate sector – with about 20% of all FDI in Sofia. Considerable investment by foreign nationals in real estate until 2009 was part of the pre-crisis construction boom in the capital. Starting in 2010, a process of disinvestment has been taking place in this sector: foreign investors have been withdrawing from it as a consequence of the overall downward revision in it.

Industry and public utilities were the other major recipients of FDI in the capital, with 18% of all foreign investment prior to 2014 going into these sectors. **"Creation and distribution of information and creative products; telecommunications" are also among the most attractive sectors for foreign investment,** with about 15% of the total FDI going to them so far. The sector includes all IT businesses, which, as discussed above, find good conditions for development in the capital: suitable personnel, relatively low labor and other costs, low direct taxes etc. Another similar sector which attracts considerable foreign investment and is developing vigorously in the capital is the outsourcing of a variety of business services, which is found in the rubric "Professional activities and scientific research; administrative and support activities" in FDI statistics. About 11% of all foreign investment in the capital until the end of 2014 went to that sector.

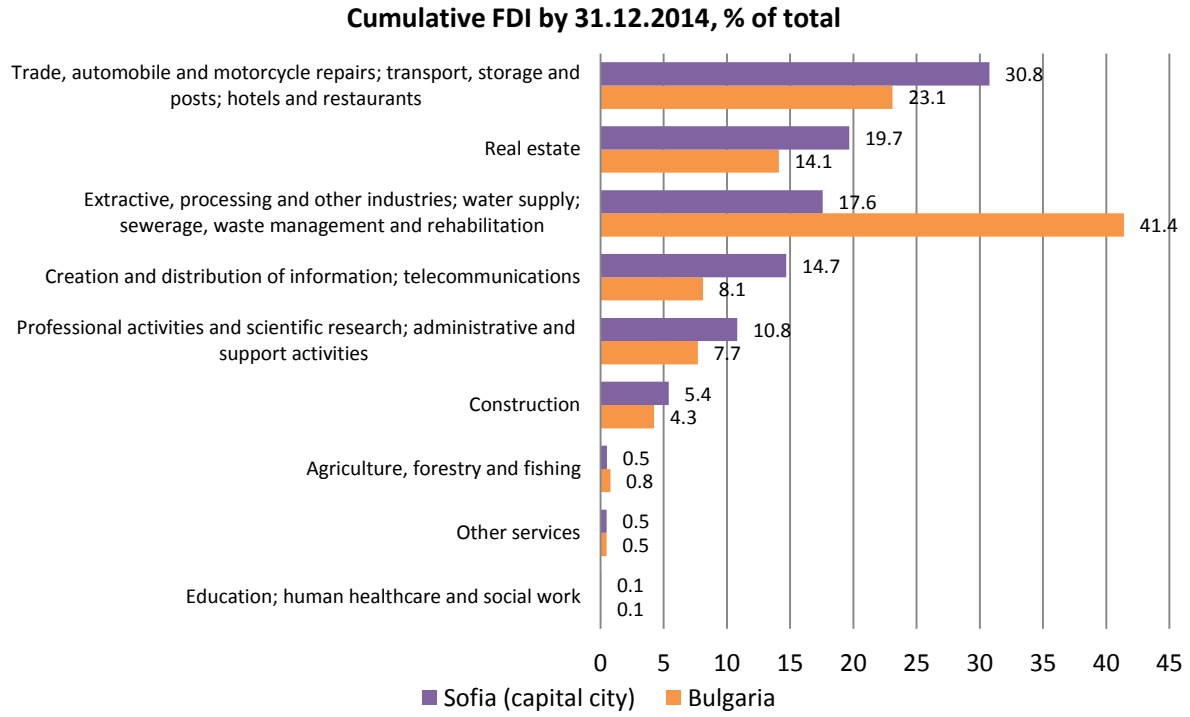
Cumulative FDI in Sofia (capital city) by 31.12.2014, %



Source: NSI, IME calculations[2]

It should be noted that in comparison with the country average figures Sofia is characterized with relatively higher foreign investment in the following sectors: trade, transport and tourism; information and creative products, telecommunications; professional, scientific and technical activities, administrative and support service activities. On one hand, it is the strong positions of these sectors in the local economy that attract investment; on the other hand investment creates prerequisites for growth in these sectors and their relatively greater weight in the local economy. As industry is less important in the structure of the capital's economy compared with the country average, it is hardly surprising that investment in this sector is more than two times lower than the country average. At the same time, thanks to the construction boom in the capital prior to 2009, foreign investment in that sector has kept its relatively high share in the local economy of about 5.4% of the cumulative FDI by the end of 2014.

[2]Sector names have been simplified in the chart for better visual representation. *Agriculture* is Agriculture, forestry and fishing; *Industry and public utilities* are extractive, manufacturing and other industries, water supply; sewerage services waste management and recycling; *trade, transport and tourism* include wholesale and retail trade, automobile and motorcycle repairs; transport, storage and posts; hotels and restaurants, *real estate* includes real estate, *information and creative products; telecommunications* include creation and distribution of information and creative products; telecommunications, *professional and administrative activities* are professional activities and scientific research; administrative and support activities, *public administration, education and healthcare* are public administration; education; human healthcare and social work.



Source: NSI, IME calculations

As a whole, FDI figures in the capital have been relatively stable in the last few years. By the end of 2014 FDI regained its pre-crisis level to reach about 11.7 bn. euros. Still, having in mind the nearly 12.5 bn. peak of FDI in 2009-2010, the withdrawal of investment or disinvestment after 2010 has not been completely compensated by the new influx of foreign capital yet. Disinvestment mostly happened in the real estate sector after the downsizing in construction, as well as the "creation and distribution of information and creative products; telecommunications" sector.

1.3.3. EU funds

In the last few years EU funds have turned into a source of investment for Bulgarian regions of ever growing importance. That importance increased particularly in the aftermath of the world economic crisis of 2008-2009 when free capital resources drastically declined both in the country and in the world as a whole. In Bulgaria EU funds in fact started being absorbed right after the crisis and managed to compensate to some extent the shrinking of foreign investment and borrowed capital.

The capital has been characterized by relatively good EU fund absorption so far. Projects with EU funding in Sofia municipality had received BGN 2.812 bn. by the end of 2015. That was the last year in which Bulgaria could absorb funding from the EU cohesion and structural funds within the framework of the preceding program period, which means that 2.812 BGN was the money absorbed by beneficiaries in the capital within the framework of the 2007-2013 budget period. Compared to the total funds paid by operational programs, the district of Sofia (capital city) absorbed about 19%. In proportion to the local population; the absorbed funds equal about 2 130.3 BGN per capita, which is slightly better than the national average of 2 065.3 BGN per capita.

	Top 10 beneficiaries in the district of Sofia (capital city) from EU funded projects (amounts paid by the end of 2015), BGN	*Amount paid*
1	Sofia Underground	1 042 660 653
2	Sofia Municipality	595 308 125
3	Employment Agency	290 490 235
4	Road Infrastructure agency	239 363 554
5	Ministry of Public Health	55 059 405
6	Ministry of Culture	48 282 141
7	Sofia Tech Park	40 147 040
8	The management of "Transport" operational program at the Ministry of Transport, Information Technologies and Communications	30 738 011
9	The Ministry of Transport, Information Technologies and Communications	28 038 204
10	"Railway Infrastructure" national company	11 954 239

Source: www.eufunds.bg

By the end of 2015 the Metropolitan municipal company which runs the capital's underground system had absorbed BGN 1.043 bn. for EU funded projects and became the largest beneficiary on the territory of Sofia municipality. The funds were invested in the construction of new underground lines. The Municipality itself is the second largest beneficiary of EU funds in the district of Sofia (capital city) with 595.3 bn. Its largest EU funded projects include the construction of the waste treatment facility, the purchase of underground trains and ecological buses, the sewerage infrastructure in some parts of the city, parks, social services, enhanced administrative capacity etc. The Employment Agency and the Road Infrastructure Agency were also among the largest EU fund beneficiaries with 290.5 and 239.4 BGN respectively by the end of 2015. The Employment Agency used the funds exclusively in training programs for unemployed people, while the Road Infrastructure Agency used the funds mostly in the construction and rehabilitation of the Sofia ring road.

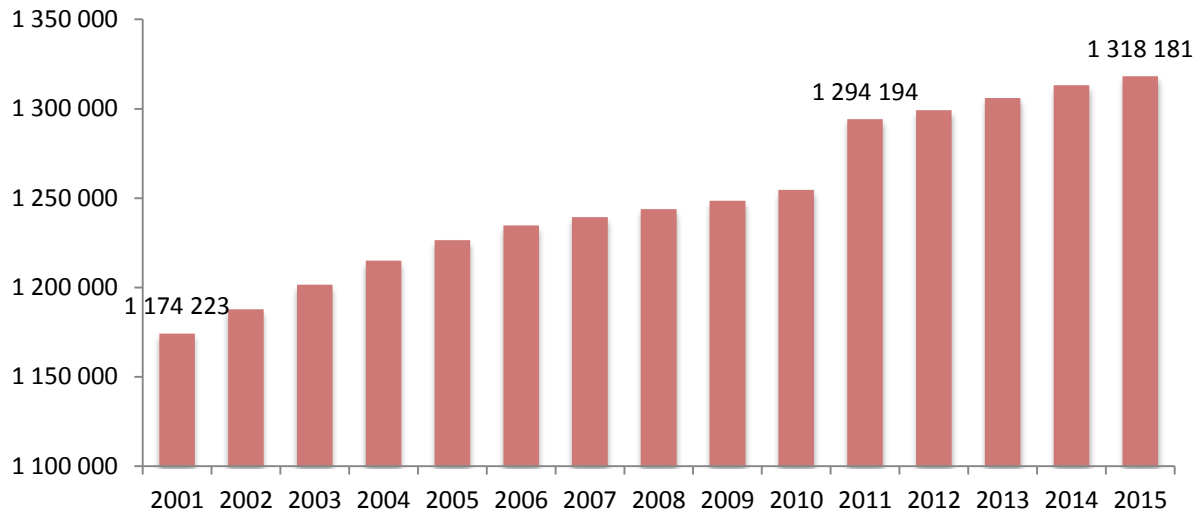
It is noteworthy that there is not a single private company among the top ten EU fund beneficiaries in the capital. The largest private beneficiary from the operational programs in the capital is the pharmaceutical company Sopharma which occupies the 13th place with BGN 6.84 m. for technological improvement.

2. Workforce profile of Sofia Municipality

2.1 Demography

The municipality of Sofia is the district in Bulgaria with the largest population and with relatively good demographic tendencies. 1.3 m. people lived in it in 2015, or 18% of Bulgaria's annual average population. In 2000 that percentage was 15%, which indicates that Sofia attracts a growing number of people from the entire country.

Annual average population, Sofia (capital city)



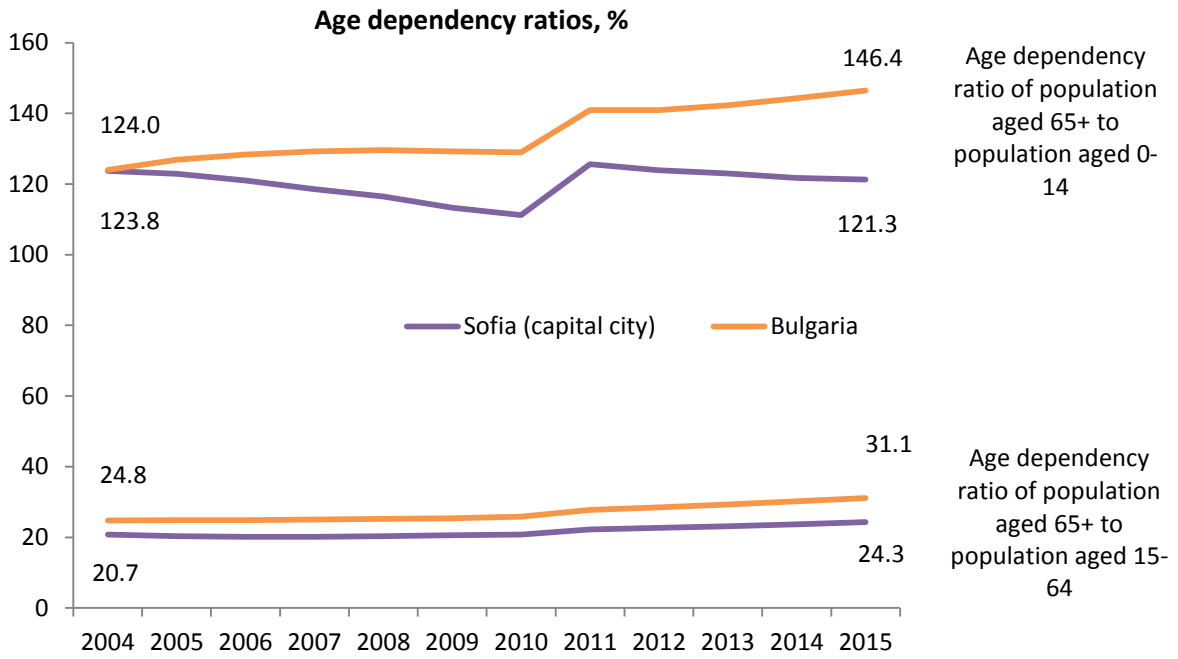
Source: NSI

In 2015 Sofia municipality was one of the six districts in the country (alongside with the districts of Sofia, Plovdiv, Varna, Burgas and Haskovo) with positive mechanical population growth. The NSI migration figures show that between 2007 and 2015 the number of people who left their district of residence was 743 thousand. About 157 thousand moved to the capital which is comparable with migration to other countries, 156 thousand.

The influx of young people also contributes to the more favorable natural population growth in the capital. Though in 2015 the natural growth rate was negative (-1.7‰), this was the most favorable figure in the country – the country average being -6.2‰. The tendency is better as well: over 20% of children born in Bulgaria in 2015 were born in the capital compared with 15% in 2000.

The relatively favorable natural and mechanical growth in the capital determines the better demographic tendencies. The population is younger and decreases at a slower rate than that in the other districts and towns in the country. Over time the differences deepen considerably. While in 2000 the rate of the population 65+ to children below 14 was comparable to the country average, by 2015 the difference grew to reach over 25 percentage points. A similar tendency is noticeable in the rate of people 65+ to those of working age.

Thus, **alongside with attracting young people, the capital also marked a greater increase of the share of children** which predicts a better demographic picture in the future compared to the rapidly ageing population in most Bulgarian districts.



Source: NSI

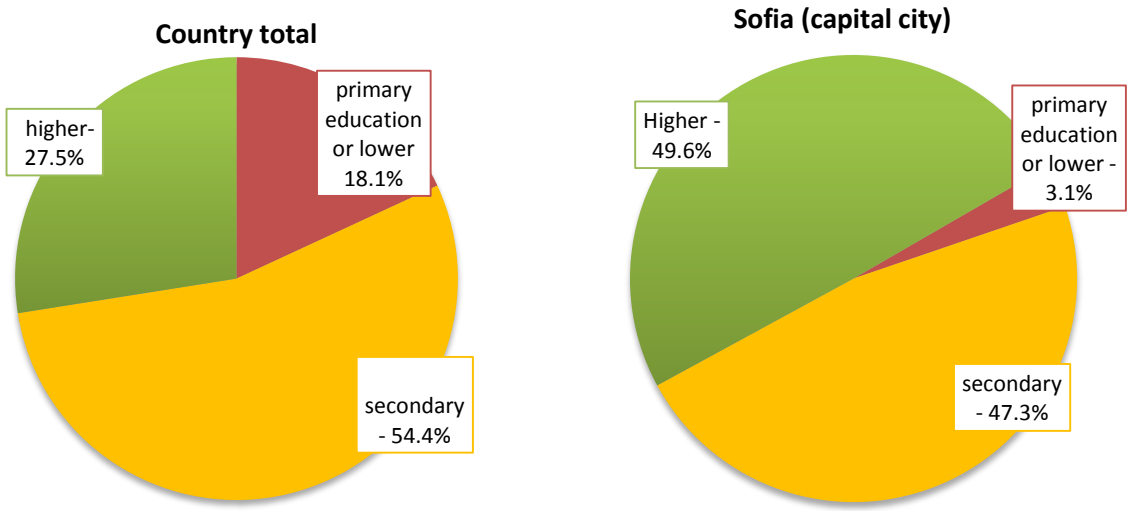
Another characteristic of Sofia municipality is the almost entirely urban population which differentiates it from all other districts. The concentration of the most numerous population in one city and the most densely populated urbanized territory in the entire country (its density being three times higher than the average) offers variety and easy access to the workforce.

2.2. Education

Sofia's population differs considerably from that in the country in its educational structure. **The capital is characterized by a concentration of highly qualified population**, people with high educational level.

In 2015 the share of people with secondary education among those aged 25-64 in Sofia was comparable with that in the rest of the country: 47% and 54% respectively. The differences were in the share of people with higher or lower education. While the share of people with university degrees is 28% for Bulgaria, it is almost two times higher in the capital – 50%. The difference is even greater in the share of people with primary and lower education: while in Sofia the population 25-64 with primary or lower education is 3%, the country average is 18%. This indicates that the capital's population is mostly educated and the labor market there consists of more qualified people than that in the rest of the country.

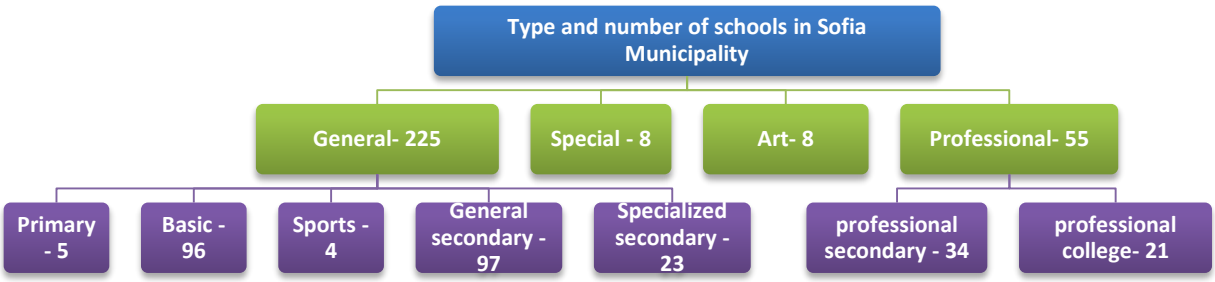
Share of population aged 25-64 by degree of education, 2015, %



Source: NSI

As the district with the most numerous population and therefore with the greatest number of children, the city has the greatest number of schools of all types and educational levels. **School leavers in Sofia perform best at state matriculation exams**, traditionally showing the highest average grades and the lowest share of failing grades at the exam in Bulgarian language and literature which is mandatory for all school leavers. The results from 2016 are no exception.

By mid-2016, a total of 296 schools operated in Sofia, 174 of them owned by the municipality, 74 privately owned and 48 owned by the state.



In 2015 the total number of students enrolled in primary and secondary education was over 125 thousand or 17% of all the students at these levels in the country. Compared with 2008 the number of students in primary and secondary schools in the capital shrank by less than 2% while for the country this figure was almost 10%. The number of teachers also went down much more slowly: by about 10% in Sofia compared with twice that figure in the country. The better performance in the capital can also be seen in the number of school drop-outs and repeaters which is half the country average.

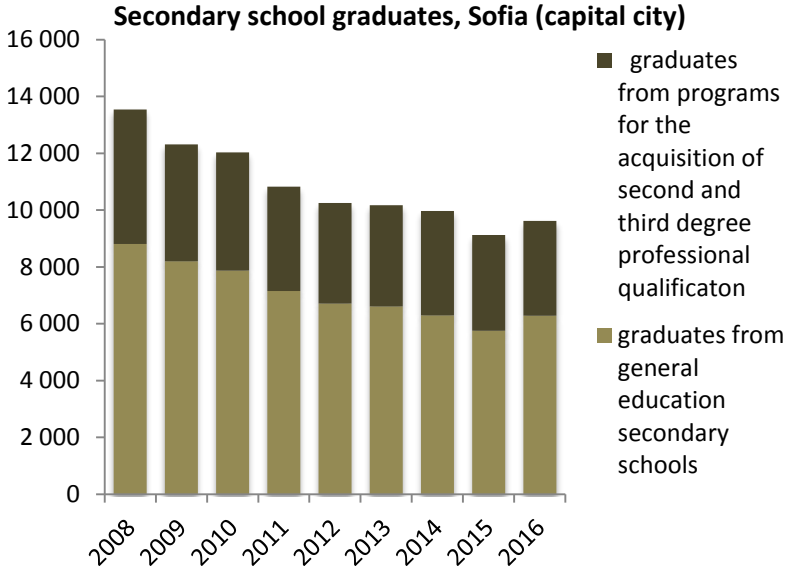
In the last few years about 10 thousand students have graduated from secondary schools annually. Slightly over 3 thousand of them have acquired some kind of professional qualification. The city of Sofia is characterized with a relatively low share of professional education. While in Bulgaria half of those who go to secondary schools receive professional education, in the capital this share is about 1/3. The enrolment plan for the 2016/17 school year shows that the greatest enrolment goes to the following qualification areas: “Transport Technology Technician”, “Computer Systems Technician”,

"Communication Systems Technician", "Economist" and "Electrician", about 1/3 of all enrolled. These professions to a considerable extent correspond to the capital's economic profile.

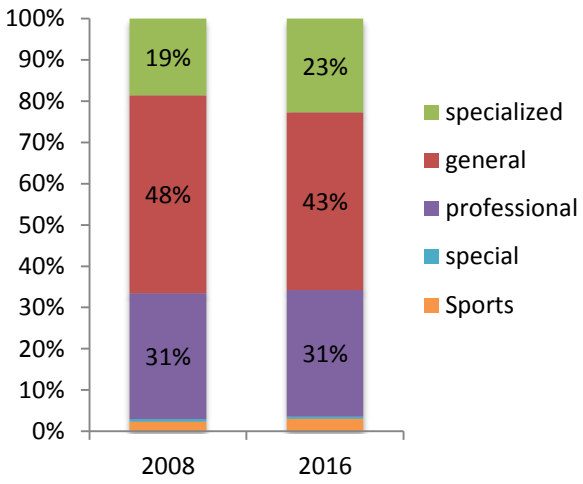
Simultaneously, preferences for specialized education have increased in recent years. Compared with 2008, in 2016 the share of 8th to 12th graders who go to specialized schools increased by 5%. Almost 70% of them go to language schools learning mainly English, German, Spanish and French. The increase is at the expense of general education secondary schools. Those who go to professional schools and junior colleges have kept their share of 31%, though they have lost the second largest number of students after the general high schools. The great interest in specialized schools is hardly surprising and corresponds to the demand for more college graduates and fewer professionally trained secondary school leavers in Sofia compared with other districts and the relatively low share of industry in Sofia.

NSI figures show that people with professional qualification make up over half of those employed in manufacturing, production and distribution of electricity, heating and gas; transport, storage and posts – all three sectors with a smaller share in the capital than in the other districts.

Secondary school graduates, Sofia (capital city)



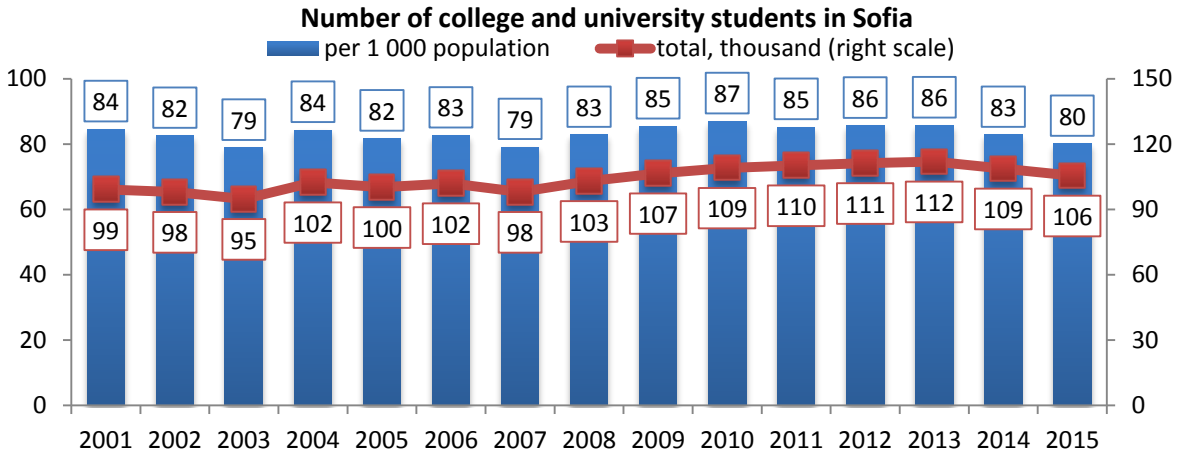
Students enrolled 8th-12th grade in Sofia, type of school



Source: NSI, REI

It should also be noted that out of 51 accredited higher education establishments in Bulgaria 23 are in Sofia. What is more, **the top three with the highest accreditation ranks[3] are in Sofia: The Medical University, the University of National and World Economy and Sofia University St Kliment Ohridski.** They attract the best students. Sofia has the greatest number of students: about 100 thousand altogether, which is about 40% of the total number in the country since 2000. Between 2000 and 2015 there were between 80 and 90 students in Sofia per 1000 population. The only district with a higher number per 1000 in recent years is Veliko Tarnovo with about 100 students per 1000. Still, the relative share of population aged 25-64 in Veliko Tarnovo was lower than the country average - 26.9% and 27.5% respectively - in 2015, which indicates that young people leave the district on graduation. In Sofia, however, the share of people aged between 25 and 64 with college degrees is almost double – 49.6% in 2015. In other words, apart from the fact that the number of students is highest in Sofia and they also stay on the city labor market after getting their degrees, many college graduates from other districts also move to Sofia.

[3]Data from the Ministry of Education and Science, Регистър на акредитираните висши училища



Source: NSI

The Ministry of Education's ranking of universities in Bulgaria givesSofia's universities the topmost rank for student performance almost in all professional areas. Figures for knowledge acquisition and skills mastered are also highest in Sofia. Thus for example in the areas with the greatest number of students in the country, economics (57 thousand), administration and management (26 thousand) education (12 thousand) and law (11 thousand) Sofia University St Kliment Ohridski has the highest share of students who apply the education they received in the labor market (about 70%) and this is the group of students with the lowest unemployment (below 3%).

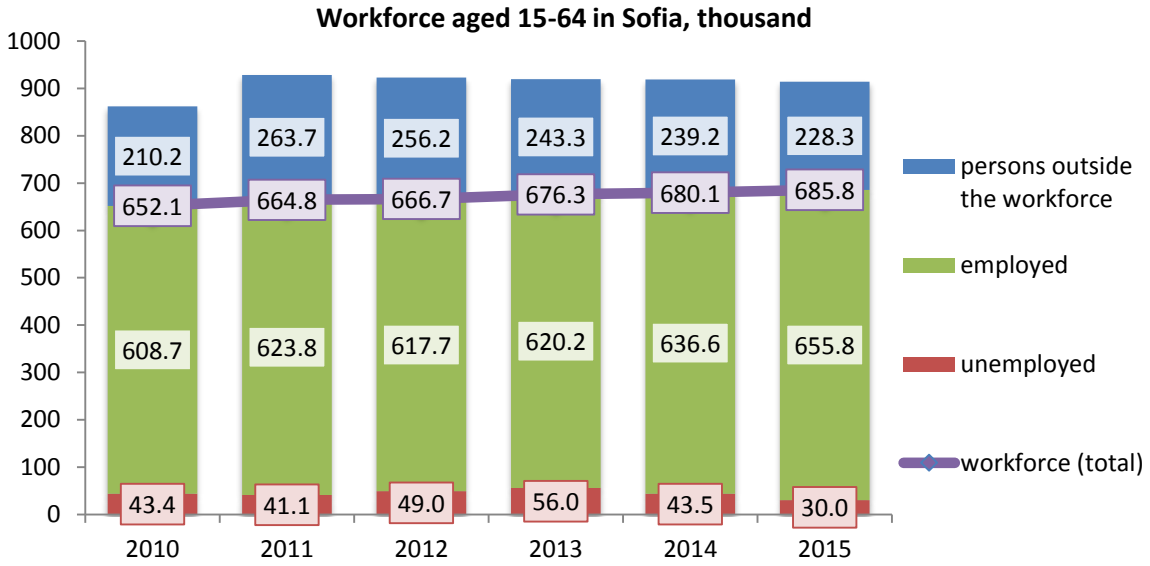
2.3. Labor market

2.3.1. Workforce

The capital attracts a growing proportion of the workforce available in the country. In 2015 Sofia's workforce aged 15-64 was almost 700 thousand people or 21% of the national workforce while it was 650 thousand and 19% respectively in 2010. What is more, from 2011 to 2015 the working age workforce in Sofia grew by 5% while it fell by 3% in Bulgaria.

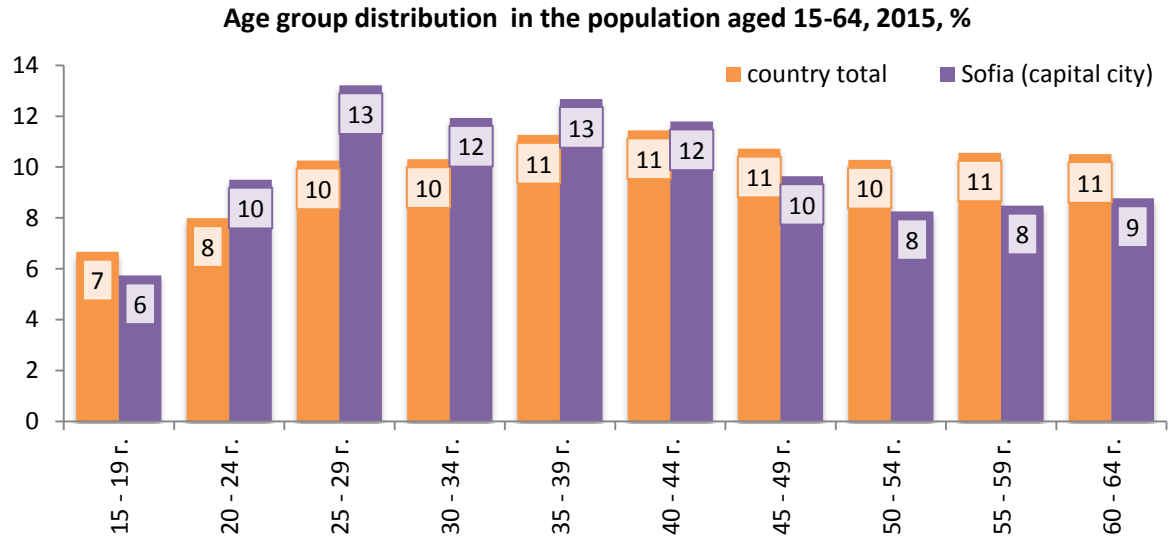
The economically inactive people (those who are neither employed nor unemployed) were 25% of the working age workforce in 2015, against 31% for Bulgaria.

During the last few years and especially after the market recovery from the crisis started in 2013, the economic activity of the working age population rose considerably to almost reach pre-crisis levels. In 2015 the 15-64 population's economic activity rate was 75% in the capital and below 70% in the country as a whole.



Source: NSI

Besides, in Sofia there are many more young people among the working age population. While those aged below 40 are over half the people in Sofia (53%), in the country as a whole this group is 46%. The main reason is that many young people from all over the country choose to stay in Sofia after graduating from Sofia's universities.



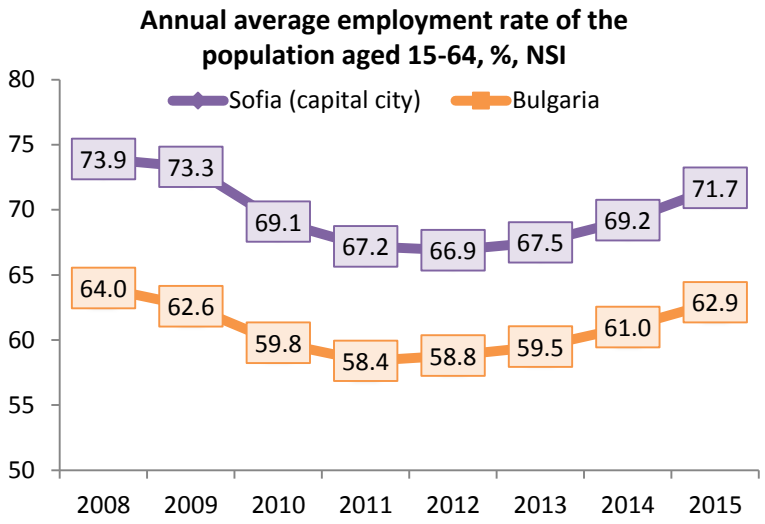
These figures show that the capital attracts mostly people of working age – and young people predominate in that group - who look for employment on the labor market. Also, as became clear from the education figures, people looking for jobs in Sofia are relatively well educated.

2.3.2 Employment

Sofia has the highest employment rate of all districts in the country. In 2015 employed people numbered 655.8 thousand and the employment rate reached 71.7% while it was 62.9% for Bulgaria. The number of the employed in Sofia in 2015 was already higher than it was in 2008. However, it will

take another couple of years to reach the pre-crisis employment rate (at the present rate of creation of new jobs), as the population of the district has increased by about 80 thousand people.

The employment figures in different economic sectors show the crisis' direct effects as well as the capital's capacity to recover its labor market.



The sector worst affected by the crisis was construction. In 2014 a record 30 thousand jobs were lost in the capital compared with 2008, while the share of construction in the total of employed people went down from 12% to 7%. After the bursting of the "construction bubble" job creation in Sofia was reoriented to the accelerating sectors of IT technology and outsourcing, and the number of people employed in these sectors[4] grew by 23 thousand in 2014 in comparison with 2008 to form 17% of the overall employment figure in the capital. The capital has serious advantages for the development of these particular sectors: a concentration of highly educated workforce and relatively low labor costs in comparison with other EU member countries.

Both before the crisis and during the recovery period the share of those employed in trade and in car and motorcycle repairs stayed the highest – over 180 thousand or ¼ of the total employment in the capital. Between 2009 and 2014 another 14 thousand found employment in these sectors unlike the other key sector in the capital – manufacturing. In 2014 its employees decreased by about 20 thousand compared with 2008, regardless of investment in pharmaceutical production, car parts, optics etc. In view of the fact that value added at factor cost of the sector as well as its share in the local economy grew during that period while the number of people employed there fell, some increase of production efficiency can be assumed, as well as downsizing of human capital through modernization or reorientation of the industry towards less labour-intensive branches.

After the crisis there was a serious increase in new jobs in the IT industry and professional activities which was a consequence of the boom in those sectors in recent years.

Number of people employed in nonfinancial enterprises in Sofia by economic sector, number Source: NSI	**2008**	**2014**	**Change 2014-2008 r.**	**Change 2014-2008 r.**
	Number	*Number*	*Number*	*%*
Total for Sofia	**657 987**	**664 211**	**6 224**	**0.9**
Agriculture, forestry, fishing	3 662	3 959	297	**8.1**
Extractive industries	1 535	626	-909	**-59.2**
Processing industries	85 268	66 226	-19 042	**-22.3**
Production and distribution of electricity, heating and gas	14 281	12 923	-1 358	**-9.5**

[4]Those sectors were "Creation and distribution of information and creative products" and "professional activities and scientific research",

Water supply, sewerage, waste management and recycling	7 847	9 570	1 723	**22.0**
Construction	77 734	47 395	-30 339	**-39.0**
Wholesale and retail trade; automobile and bicycle repairs	158 124	171 816	13 692	**8.7**
Transport, storage and posts	81 114	69 925	-11 189	**-13.8**
Hotels and restaurants	29 821	33 731	3 910	**13.1**
Creation and distribution of information and creative products; telecommunications	47 849	62 520	14 671	**30.7**
Real estate	14 412	14 420	8	**0.1**
Professional activities and scientific research	46 498	54 926	8 428	**18.1**
Administrative and support activities	47 142	62 173	15 031	**31.9**
Education	3 238	4 996	1 758	**54.3**
Human healthcare and social work	23 452	28 638	5 186	**22.1**
Culture, sport and entertainment	9 442	9 734	292	**3.1**
Other activities	6 568	10 633	4 065	**61.9**

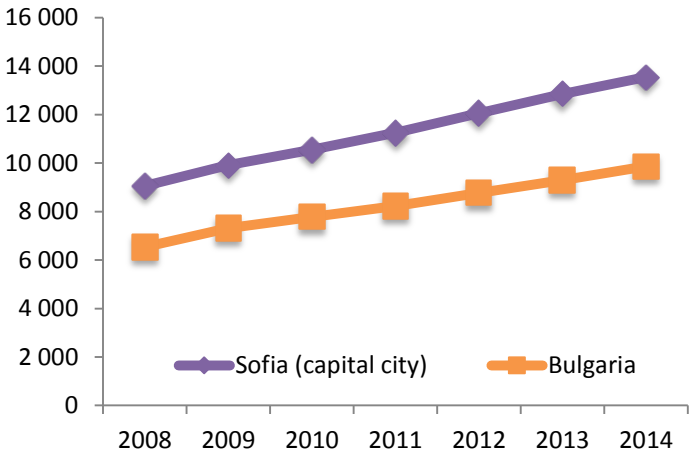
Source: NSI

2.3.3. Salaries

Alongside with the highest employment levels in the country and the significant weight in the local economy of branches demanding high qualification, salaries in Sofia are considerably higher than those in the country. In 2014 the annual average salary of people working in Sofia was over 13 thousand BGN, or over 1/3 higher than the national average of almost 10 thousand.

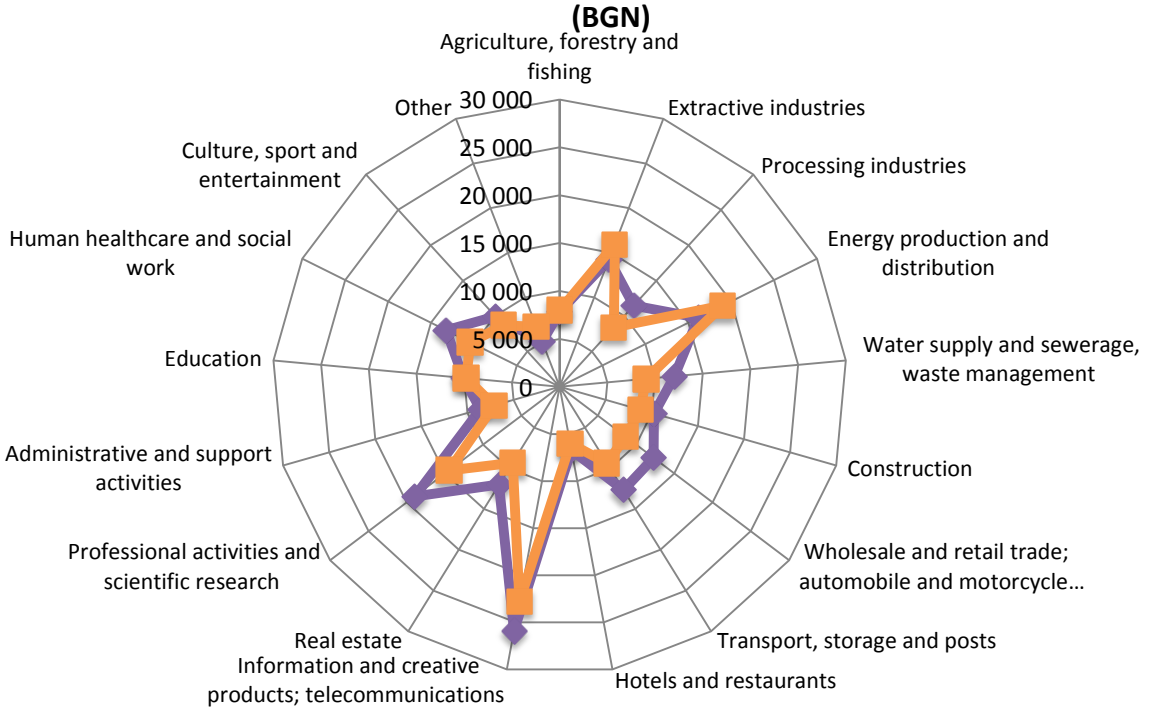
Compared with 2008 salaries in Sofia grew by 50% on average, which is a rate similar to the country average. This was why differences in salaries between Sofia and the country as a whole remained stable.

Annual average gross salary of people employed full time and part time (BGN), NSI



Two of the most rapidly developing sectors, IT services and professional services (the outsourcing of business services) had the fastest salary growth in Sofia with an increase of 9 thousand (+53%) and 7 thousand (+61%) from 2009 to 2014. In the last few years it has been precisely the sectors “Creation and distribution of information and creative products; telecommunications” and “Professional activities and scientific research”, to which the IT and outsourcing industries belong, that have offered the highest salaries in Sofia.

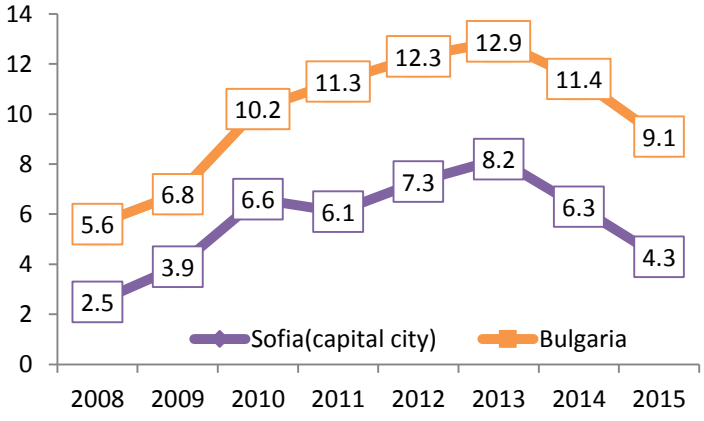
Annual average gross salary of people employed full time and part time (BGN)



2.3.4. Unemployment

In 2015 unemployment fell to 30 thousand people after a constant employment growth in the last few years. The employment rate also improved considerably though it has not yet reached its pre-crisis levels of 2008. Nevertheless, during the entire crisis and post-crisis recovery period unemployment has been considerably lower than the country average levels.

Annual average unemployment rate of the population over 15 years of age, %, NSI



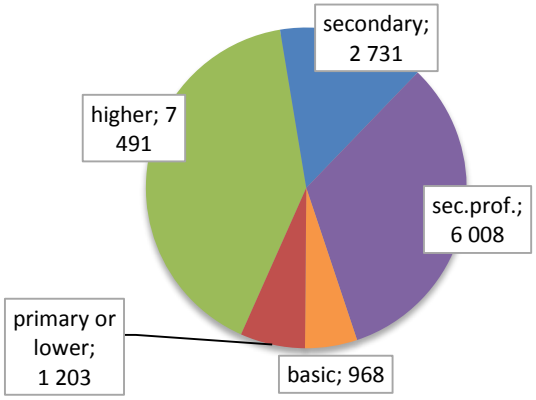
Towards the end of 2015 employment offices in Sofia registered 18 thousand unemployed people 40% of whom or 7.5 thousand had college degrees and 33% or 6 thousand people had professional secondary education.

About 60% or over 10 thousand of those registered as unemployed were specialists (mainly in the services, transport, economics and law). 10% (2 thousand people) were specialists in technology and equipment.

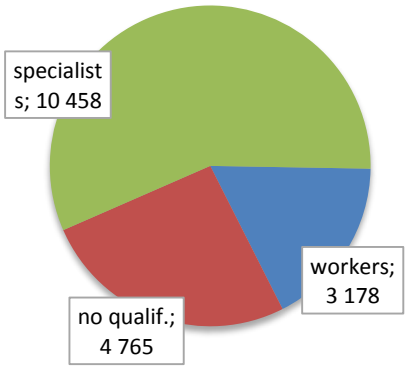
In view of the specialization and the relatively high education levels of the registered unemployed it is little surprise that only 10% have been registered for over a year while this figure is 40% for the country. These figures imply that unemployment in Sofia is mainly frictional, or the consequence of the natural labor market dynamics and the transfer of working population from one job to another. It

is also supported by the unemployment benefit system in the country which encourages people to stay unemployed for the entire duration of the benefit entitlement (it depends on the years of service and cannot exceed 1 year).

Registered unemployed, education, December 2015, NEA



Registered unemployed, qualification, December 2015, NEA



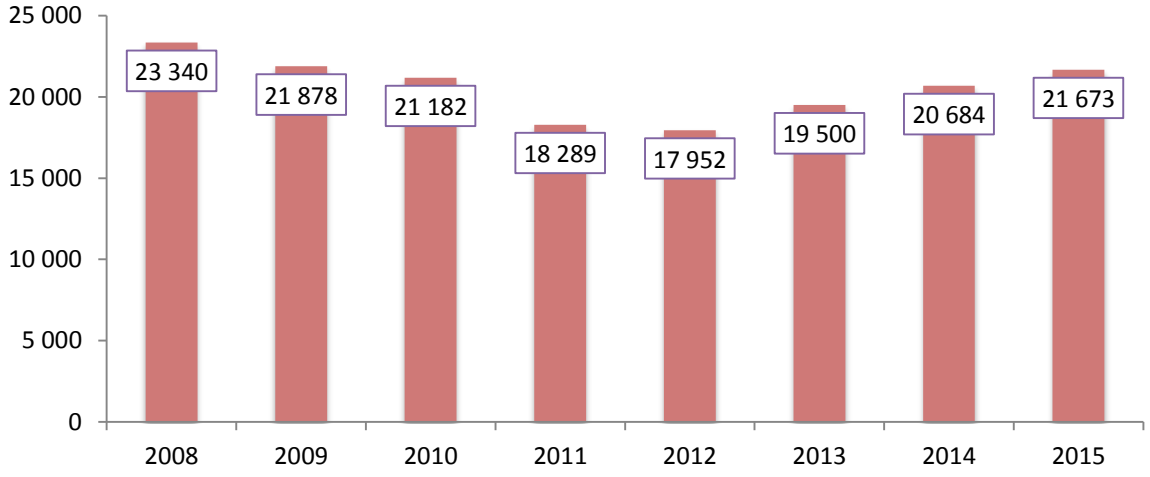
2.3.5. Job vacancies

In 2015, a total of 22 thousand job vacancies were announced in employment offices in Sofia, 2/3 of which were in the private sector. Demand through the employment offices is highest for people in wholesale and retail trade and vehicle repairs (18% or 4 thousand altogether), which corresponds to the economy's profile of Sofia and the leading role of those branches in it.

The number of announced vacancies went down after the crisis of 2009 began and the downward tendency continued until 2012. As the labor market started recovering in 2013, employment and economic activity increased and the local economy started creating jobs again which included those announced at labor offices.

The most significant change in recent years in comparison with the period before the crisis has been in the number of job announcements in real estate and construction which went down considerably after the crisis. While in 2008 23% of workers wanted were in real estate, in 2015 they were only 11%. The downsizing in construction was almost double. These figures are once again proof of the powerful effect of the crisis on construction and real estate.

Job vacancies announced at employment offices in Sofia (capital city)



Source: NEA

3. Local taxes and fees

None of the main local taxes and fees in Sofia municipality has been changed in the last 5 years (2012-2016) which shows a relatively stable and predictable business taxing environment. Besides, most of the main local taxes in Sofia municipality are close to the country average rates and those in the other district centers, though generally a little higher. The marginally higher rate of local taxes and fees in the capital is probably due to the concentration of business activities and population in Bulgaria's largest city, but also probably to the insignificant (at this point) incentive for moving people and companies, created by those taxes and fees, because of their relatively low weight in the total tax burden. The main part of the tax burden for both individuals and juridical persons is the part which goes into the national budget and is the same for all parts of the country.

Property tax (for non-residential property of juridical persons) is one of the main taxes for companies that operate from their own property. It is 1.88% in 2016 and has not been changed in the last 5 years. This rate is very close to both the country average level and to levels in the other 27 district centers.

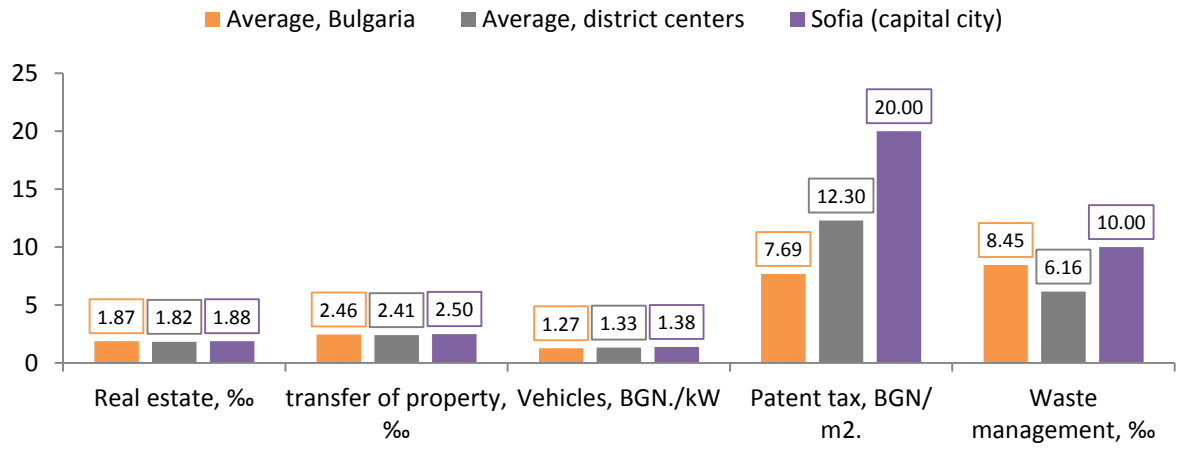
Property transfer tax (‰) in 2016 is 2.50 (‰) in Sofia municipality, also close to both the country average level and to levels in the other 27 district centers. After 2007, legal limits were set to this tax: from 0.1 to 3‰. During the last few years its rate has been 2‰ in most municipalities, except in district centers – 2.5‰, the same rate as in the capital throughout the period between 2012 and 2016.

The tax on vehicles and cars (from 74 kW to 110 kW) in the municipality of Sofia during the 5-year period under consideration remained 1.38 BGN/kW, the limits set in the law being from 1.10 BGN to 3.30 BGN for 1 kW. The first figure is actually the same as the basic level from 2007 and maybe that is why 1.10 BGN/kW is the most often applied rate both in district centers and among all municipalities in the country.

The main differences in taxation between the capital and the other district centers are in the patent tax for retail trade and the waste collection tax, both considerably higher in the capital.**The annual patent tax rate for retailers** with the best location and up to 100 m^2 of sales space in Sofia municipality has been 20 BGN /m^2 for the last 5 years. In most district centers the rate has been 10 BGN/m^2 since 2013,10 BGN is also the most widespread figure in the country as a whole in 2016.

In Sofia municipality the **waste collection tax** has kept a stable rate of 10‰, unchanged in 2016. This is a considerably higher rate than the average of 6.16‰ for the other 27 district centers.

Local taxes and fees, 2016



Source: NSI, IME calculations

4. Infrastructure

4.1 Transport Infrastructure

Road infrastructure

The district of Sofia (capital city) has a strategic location as an international road junction and European transport center on the territory of which three important trans-European transport corridors of key economic importance intersect: corridors №4, 8 and 10[5]. The shortest route from Sofia to Greece runs via the Kulata border crossing point, at a distance of 190 km. The route to Serbia goes via the Kalotina border crossing point (58.9 km), for Macedonia - via the Stanke Lisichkovo border crossing point (122 km), to Turkey via the Kapitan Anderevo border crossing point (292 km) and to Romania via the Oriahovo ferry (184 km) or the Vidin – Kalafat bridge across the Danube river (194 km).

The motorways which connect (or will connect in the future) Sofia with the two Black Sea ports of Bulgaria and with the border crossing points with Turkey (Kapitan Andreevo), Greece (Kulata) and Serbia (Kalotina) are factors of particular importance for the city's development. **At this point the construction of two of them is complete.** These are the "Trakia" motorway (360 km) connecting Sofia with Plovdiv and Burgs and the "Lyulin" motorway (19 km) connecting the Sofia ring road with the Daskalovo junction and the "Struma" motorway. The "Struma" motorway (150 km) is expected to connect the Daskalovo junction with the Greek border (Kulata). By mid-2016 about 58% of its construction has been completed. The project is expected to be fully finished by 2022. **Since the construction of the "Maritsa" motorway ended in October 2015, Sofia has been connected via motorway with the Turkish border (Kapitan Andreevo).** The first part of the route to the "Orizovo" junction (182 km) follows the "Trakia" motorway and the second part is from the "Orizovo" junction to the Turkish border (117 km) via the "Maritsa" motorway. The "Hemus" motorway which is to connect Sofia and Varna by 2022 is still under construction with only 39% completed by now. The construction of the motorway between Sofia and Kalotina has not started yet.

The total length of roads in Sofia was about 3 400 km in 2013, of which 428 km are first-class roads and 2 972 are second class. The main street network includes 134 km city motorways, 139 km of local thoroughfares and 154 km main streets. The density of first class roads is 2.52 km/km^2 and 4.63km/km^2 in the central city area.

Railway infrastructure

Sofia is the biggest node of the country's railway network. The railway density was 12.8 km for 100 km^2 of the territory in 2014, which is almost 4 times the country average density (3.6 km/ 100 km^2). The central railway station serviced 4 international trains a day in 2014, while the number of passenger arrivals from national and international trains was over 2 m. annually. The railway administration reports an average of 171 passenger trains and 17 freight trains passing through it daily.

In the district of Sofia (capital city) as in the rest of the country both the length of the railway network as a whole and the number of passengers have been on the decrease in recent years. The

[5]Corridor №4 connects Dresden, Prague, Bratislava, Budapest and Istanbul. Corridor №8 connects Drač, Skopje, Plovdiv and Burgas. Corridor № 10 also joins corridor №9 for Helsinki, Saint Petersburg and Moscow.

main reasons lie in the lowered quality and absence of modernization in this type of transport as well as the development of competitive road and air transport.

In the capital the length of railways dropped from 203 km in 2005 to 172 km in 2014; their density fell from 15.0 to 12.8 km/100 km2. At the same time the annual number of passengers shrank from over 3 m. to 2.2 m.

Density of railway lines km/100 km^2 territory

	2008	2009	2010	2011	2012	2013	2014
Sofia (capital city)	15.0	15.0	15.0	13.8	13.8	13.6	12.8
Bulgaria	3.7	3.7	3.7	3.7	3.7	3.6	3.6

Source: NSI

The first and only underground system in Bulgaria also operates in Sofia. At present it has 2 lines with a total length of 40 km and 35 stations; the construction of the third line started in 2015. By mid-2016 the daily number of passengers reached about 350 thousand and underground transport was established as a quick, cheap and convenient means of transportation in the city.

Air transport

The largest airportin Bulgaria, with two passenger and two cargo terminals, is in Sofia. The total capacity of Sofia Airport's cargo terminals is 20 000 tons annually; the cargo zone covers an area of 14 600 m^2. The annual passenger capacity of terminal 1 is 1.8 m. and that of Terminal 2 is 2 to 2.8 m. Terminal 2 has 34 check-in desks and 4 online check-indesks and 8 self-check-in desks. The total passenger capacity of Sofia Airport is 4.6 m. a year andthere is no restriction on aircraft types.

4.2. Information infrastructure

Internet infrastructure has been improving in recent years not only in Sofia but in Bulgaria as a whole. During the second quarter of 2013 the average speed in the country was 6.7 Mbps and according to Akamai, by mid-2016 it was double that figure: 15.8 Mbps. **In Sofia municipality, as might be expected, the speed of 17 Mbps (testmy.net) is higher than that in the rest of the country** which is an important factor for business development in the capital.

Sofia also has the largest share of households with internet access: 75.3% in 2015 while the country average figure was 59.1% and the average for the Southwestern region was 67.8%. The capital also ranks first in persons aged 16-74 who use the Internet: in 2015 78.1% had used the Internet in the previous year, the average figure being 60.3% for the country.

All of that comes to show that Sofia municipality provides good conditions for internet access and the relatively young and educated population uses it.

Relative share of households with internet access, %								
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Sofia (capital city)	47.3	53.0	57.1	67.0	66.2	70.9	69.3	75.3
Bulgaria	25.3	29.6	33.1	45.0	50.9	53.7	56.7	59.1
Relative share of persons aged 16-74 who used the internet in the last 12 months, %								
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Sofia (capital city)	66.0	72.3	68.0	78.7	74.2	77.5	77.7	78.1
Bulgaria	33.0	39.7	41.6	51.1	55.1	56.2	59.2	60.3

Source: NSI

5. Sofia as business destination: a comparative regional analysis

Sofia has a number of advantages over its main competitor business destinations in the region: Belgrade, Bucharest, Skopje and Thessaloniki. **The chief advantages of Bulgaria's capital come from the relatively low rate of direct taxes** (profit and income tax) as well as the low office space rental costs and the low utilities expenses. The information infrastructure in Sofia is also very well developed: the city has one of the highest internet speeds in Europe.

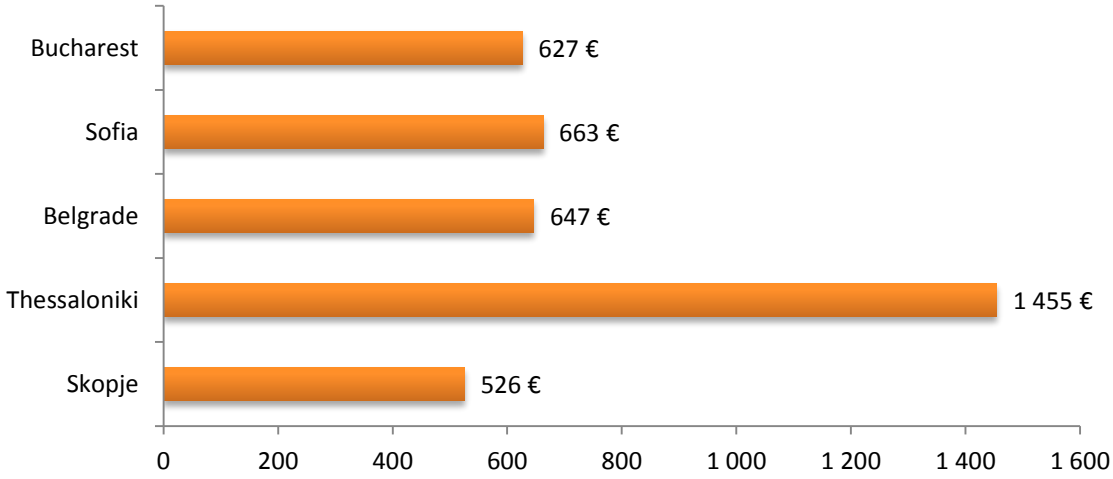
Direct taxes in Bulgaria are the lowest in the region: only Macedonia has an identical flat rate of 10% on individuals' income tax and on corporate profit. All other countries (cities) considered here have higher tax rates for corporate and personal income. Concerning the social security burden, Bulgaria has a middle position in the region: between 30.4% and 31.4% of gross salaries. This figure is much higher in Greece, Serbia and Romania, though lower in Macedonia.

Direct taxes and social security burden (June 2016), %

Country	Corporate tax	Income tax	Social security burden (% of the gross salary)
Romania	16	16	39.25-49.25
Bulgaria	10	10	30.40-31.40
Serbia	15	10-20	37.80
Greece	26-29	22-45	41.06
Macedonia	10	10	27.00

Source: PricewaterhouseCoopers (PwC); Trading Economics

Average gross monthly salary, March 2016, euro

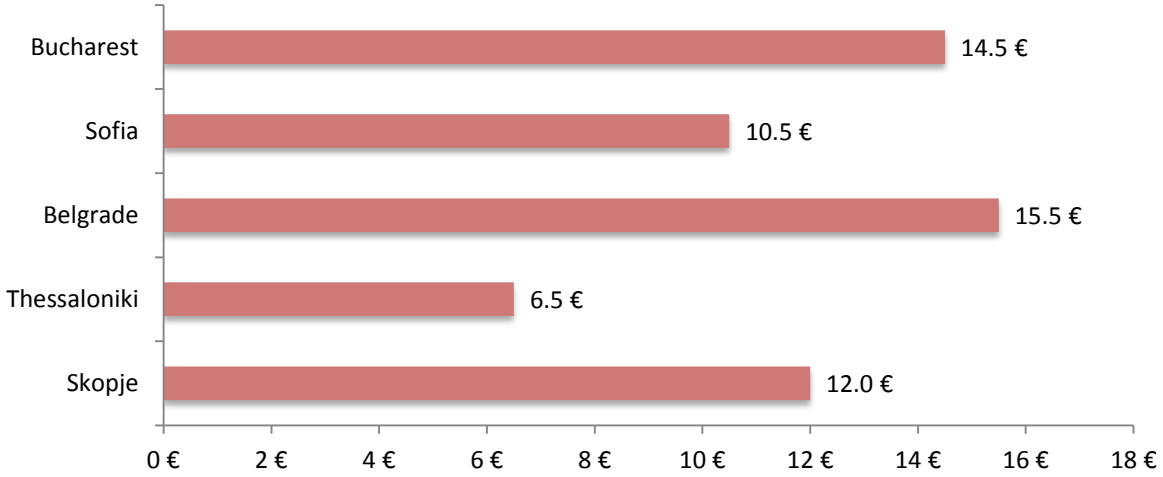


Source: NSI; State Statistical Office (Macedonia); National Institute of Statistics (Romania); Statistical Office of the Republic of Serbia; Salary Explorer

The average gross salary in Sofia is comparable with its levels in the chief competitor destinations in the region with the exception of Thessaloniki where it is over two times higher. The most recent figures from March 2016 show the average gross salary in Sofia (before taxation and insurance) to be 1 296 BGN a month or about 663 Euro. Average gross salary levels are higher in comparison with Bucharest, Belgrade and Skopje, the difference varying between 2% and 26%.

Among the four capitals of Southeastern Europe (Belgrade, Bucharest, Sofia and Skopje) **prices for "Class A" office space are lowest in Sofia: 10.5 euro/m².** Only Thessaloniki has lower prices but this is due to the fact that it is not a capital and does not have the respective administrative significance as the other competitor destinations; another possible reason is the real estate market crisis in Greece. The crisis brought about an abrupt drop in the demand for office space and thus a slump in real estate and rental prices, over 50% in Athens and Thessaloniki between 2008 and 2015.

Prices for "Class A" office space, second half of 2015



Source: Colliers International; Commercial Real Estate Services; Eurobank Property Services

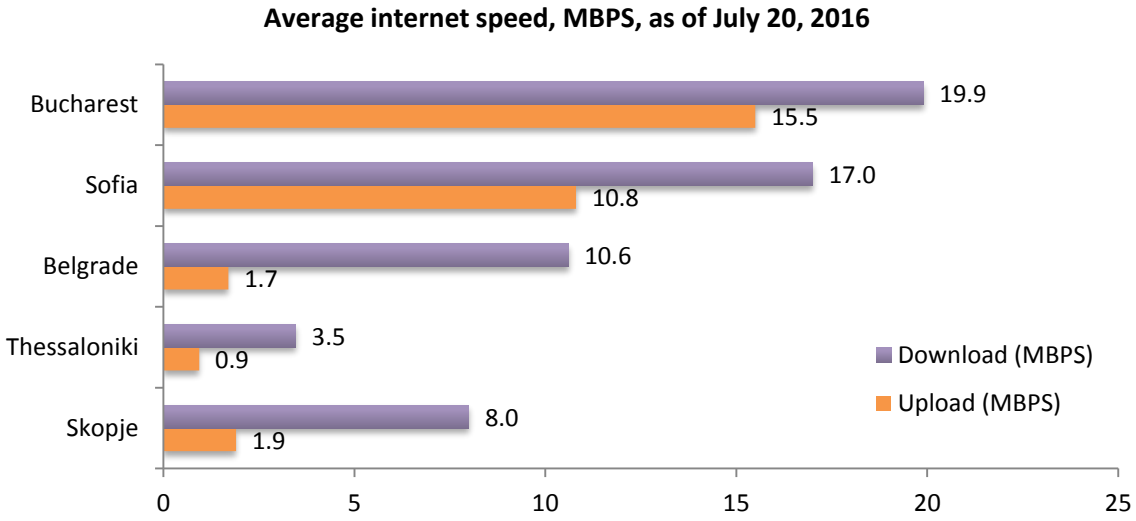
Utilities and city transport fares (June 2016)

City	Monthly cost of basic utilities (electricity, heating, water, waste disposal) for a flat of 85 m²	Single fare (city transport)	Average taxi price per km
Bucharest	95.60 €	0.33 €	0.31 €
Sofia	86.90 €	0.82 €	0.40 €
Belgrade	123.41 €	0.72 €	0.56 €
Thessaloniki	129.30 €	1.00 €	0.72 €
Skopje	130.63 €	0.57 €	0.41 €

Източник: Numbeo

Prices of the basic utilities (electricity, heating, water and waste) are also the lowest in Sofia: about 86.90 euro monthly for an average-sized flat of 85m². Bucharest comes second with an average price for these services of 95.60 euro and in all other cities in the region the price is considerably higher, by 30 to 40 euro. As for city transport, however, Sofia has the second highest rates in the region after Thessaloniki. Taxi tariffs, however, are relatively lower here: about 0.40 euro/km.

In internet infrastructure Sofia has one of the best speeds in Europe. It has the second highest average speed in the region both for download and upload, 17 and 18 Mbps respectively. Of all big cities in the region the average speed of internet services is higher only in Bucharest.



Source: testmy.net, www.bandwithplace.com

6. Perspectives for development of the district of Sofia (capital city)

The district will continue to concentrate a growing share of economic activities in the country in the long term. Both the positive demographic processes and Sofia's leadership in the development of the fastest growing sectors provide the prerequisites for that. By 2015 Sofia was one of the five districts in the country with a positive net migration growth and the only one with more settlers than leavers ever since 2000. Though since 2010 its natural growth has been negative, as it has been in the rest of the country, it is relatively favorable compared with any of the other districts.

Apart from attracting highly educated people of working age from other districts, the capital puts out the greatest number of highly qualified people in the country. The greatest number of elite high schools (with emphasis on languages, sciences etc.) is located in Sofia. These schools rank highest in achievement at state matriculation exams. For example, the top 5 ranks at the matriculation exam in Bulgarian language and literature in 2016 were occupied exclusively by high schools from Sofia. Sofia is characterized by the highest number of university students: 105 517 or 41% of all university students in the country. Veliko Tarnovo is the only district with a higher number of students per capita with 97 per 1 000 compared with Sofia's 80 per 1 000. As a consequence, Sofia is characterized with the highest number of university graduates among the local population aged 25-64: about 50% or almost twice the country average (2015).

The highly qualified workforce will keep attracting investment in fast growing sectors such as the IT industry, the outsourcing of business services and some high value-added manufacturing activities. Data about high investment in these sectors in recent years comes to support their development: industry (including network industries) has been the second largest investor in FTA after the crisis as well as the most stable foreign investment recipient in recent years.

Sofia is also very well positioned to develop some new forms of economic relations such as the services of the digital and shared economy. This is possible because of the suitable IT infrastructure: highly educated people, high average internet speed, a number of IT companies and specialists, but also because of the numerous local population. The fast spreading of the Uber service in Sofia (before it was banned by the Committee for Protection of Competition) and the observed entry of other companies of the sharing economy (for, example, CarAmigo for shared car usage) supports the claim that there are good conditions for the development of this type of services. Judging by ongoing

processes in other European capitals, the potential for development of such services is huge and they are just making their first steps in Sofia.

The shortage of people with suitable engineering and technical education is a major limitation for the further growth of the IT sector and the digital economy. It forces companies to allocate considerable investment to education and training or to attract personnel from competitors. The faster university and professional schools respond to the demand for such specialists, the more the potential for the development of these sectors in the capital will increase.

Net change in foreign direct investment in the district of Sofia (capital city), m. euro

	2009	2010	2011	2012	2013	2014
Total	**876.5**	**-81.6**	**-880.3**	**117.0**	**370.5**	**-398.8**
Agriculture, forestry, fishing	-24.4	1.8	5.3	2.1	14.2	28.1
Extractive, processing and other industries; water supply; sewerage, waste management and rehabilitation	116.7	213.2	119.9	205.3	65.5	85.3
Construction	55.6	175.1	-478.1	206.1	-8.2	-75.6
Trade; automobile and motor cycle repairs; transport, storage and posts; hotels and restaurants	-214.4	662.8	-121.6	438.3	89.3	37.5
Creation and distribution of information and creative products; telecommunications	-250.7	-584.2	-373.6	-609.7	111.0	-389.1
Real estate	852.5	-304.9	-178.3	-313.5	82.7	-82.2
Professional activities and scientific research; administrative and supporting services	322.6	-234.2	146.9	189.6	9.5	-3.8
Public administration; education; human healthcare and social work	6.2	-3.2	1.3	-6.2	1.6	-0.7
Other services	12.4	-8.0	-2.1	5.0	4.9	1.8

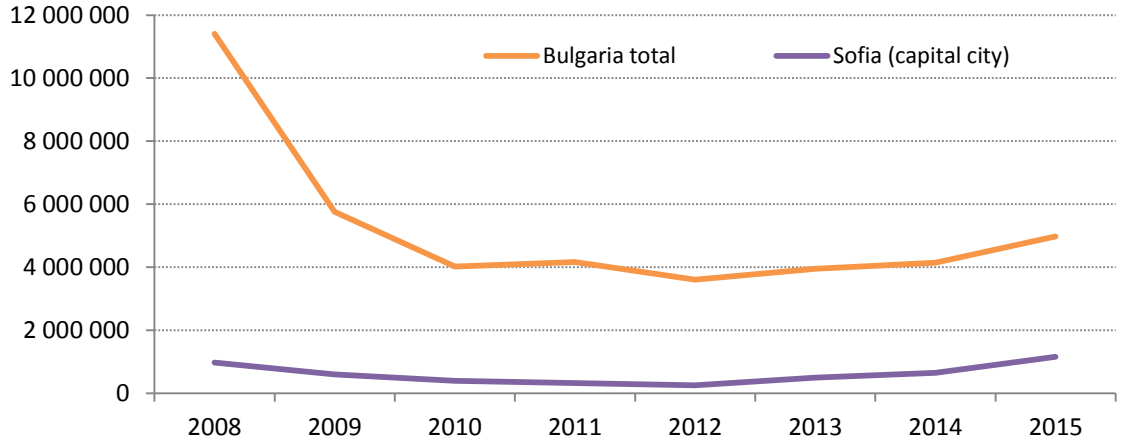
Source NSI, IME calculations

The population and business concentration in the capital, as well as the continuing growth of the local population, offer good conditions for the development of wholesale and retail trade and auto repairs; transport, storage and posts; hotels and restaurants. Apart from the fact that the purchasing power of the population is high because of the high income, which stimulates consumption and trade, Sofia is also a key center of transport and logistics, both nationally and internationally. Therefore it is not surprising that this wider services sector in the capital has also attracted the highest FTA investment in recent years. It has also enjoyed international investor interest, absorbing about 900 m. euro (net) of new FDI between 2008 and 2014.

Construction is also set to grow in the coming years, though at a more moderate rate than before 2009. The factors supporting the further growth of the sector in Sofia are the natural growth of the capital as a consequence of the influx of population from other parts of Bulgaria and the concentration of business activities. Apart from building new housing, these processes entail constant development of infrastructure and a rising demand for new business space.

Judging by new building permits issued in Sofia, **the crisis in construction is now in the past** and the total floorage for which permits were issued in 2015 surpassed the pre-crisis levels (2008). This is not true of Bulgaria as a whole, and proves the stability of the capital's economy and its relatively fast and painless recovery from the crisis of 2009.

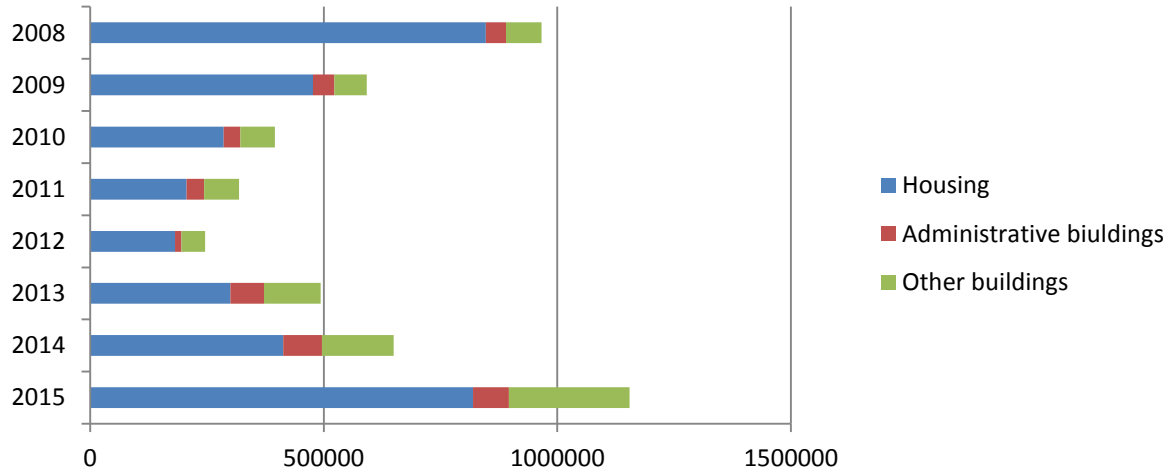
Building permits issued, total floorage m²



Source: NSI

Still, building permit figures point to a certain **restructuring of the construction sector in the capital.** While before 2008 the share of housing in the total floorage of building permits was 88%, by 2015 this share shrank considerably to about 71%. The shrinking was mostly at the expense of permits for other buildings which grew to almost three times its size, from 8% in 2008 to 22% in 2015. "Other buildings" here includes production facilities, sports facilities, recreation and hotel buildings, culture and education buildings, healthcare facilities etc. The share of administrative buildings (i.e. those used for office and administrative activities) also had a slight increase in recent years reaching 7% in 2015 compared with 5% in 2008.

Building permits issued, Sofia (capital city), total floorage, m²



Source: NSI

That restructuring reflects both the vigorous construction of business, manufacturing and other non-residential buildings in recent years and the considerable public investment in the capital's infrastructure, including EU funds.

On the whole, Sofia has all the prerequisites to continue developing at rates that are fast compared with those in Bulgaria as a whole, and to remain the nucleus of economic activity in the country, acquiring more and more weight in the national economy. The education system and its capacity to

prepare the specialists in high demand remains the main challenge to the capital's development. This refers in particular to fast growing sectors as some industry branches, software design and development, the digital economy and business services.

Another important challenge to the capital's development is the city's road and other infrastructure, as well as that of adjacent territories, the development of which is lagging behind demographic and economic processes.

Last but not least, the ongoing emigration of highly qualified specialists to other countries (the so called "brain drain") will continue to put pressure on the labor market inflating the pay in some of the fastest growing sectors and limiting their growth potential.

Addenda

Structure of the nonfinancial sector in Sofia, % 2014
(from data on value-addedat factor cost of non-financial enterprises)

	Sofia (capital city)	The rest of the country
Agriculture, forestry and fishing	0.4	5.7
Extractive industries	0.0	2.6
Processing industries	10.5	23.7
Production and distribution of electricity, heat and gas	2.0	5.8
Water supply and sewerage services, waste management	1.6	1.5
Construction	5.7	6.1
Trade and repairs	26.6	19.4
Transport, storage and posts	10.1	8.1
Hotels and Restaurants	1.7	2.7
Creation and Distribution of information and creative products; telecommunications	18.2	8.2
Real estate	3.0	1.9
Professional activities and scientific research	9.6	5.3
Administrative and support activities	4.7	2.9
Education	0.5	0.3
Human healthcare and social work	3.1	4.0
Culture, sport and entertainment	1.8	1.3
Other	0.4	0.4

Source: NSI

Students enrolled 8th-12th grade in Sofia, types of education, number

number	2008	2016
Sports	1359	1335
Special	312	237
Professional	17303	13293
General	27123	18672
Specialized	10584	9874

Source: Sofia Regional Education Inspectorate

Average matriculation exam grades in Bulgarian language and literature in the respective school year, districts

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Sofia (capital city)	4.67	4.59	4.48	4.60	4.32	4.55	4.60	4.63	4.58
Varna	4.52	4.39	4.42	4.50	4.22	4.38	4.30	4.37	4.38
Plovdiv	4.46	4.28	4.32	4.53	4.29	4.34	4.34	4.31	4.27
Smolyan	4.34	4.24	4.19	4.39	4.22	4.37	4.42	4.37	4.26
Dobrich	4.30	4.18	4.30	4.41	4.21	4.29	4.29	4.26	4.25

Vidin	4.31	4.22	4.33	4.48	4.14	4.23	4.24	4.22	4.20
Ruse	4.30	4.24	4.30	4.43	4.11	4.27	4.20	4.21	4.19
Bulgaria	4.42	4.25	4.32	4.49	4.18	4.26	4.32	4.21	4.17
Stara Zagora	4.52	4.36	4.37	4.58	4.22	4.27	4.26	4.19	4.16
Sliven	4.49	4.26	4.31	4.51	4.17	4.15	4.19	4.18	4.15
Gabrovo	4.40	4.22	4.26	4.46	4.24	4.27	4.37	4.23	4.12
Lovech	4.43	4.30	4.26	4.48	4.29	4.46	4.35	4.26	4.12
VelikoTarnovo	4.46	4.32	4.24	4.38	4.19	4.27	4.24	4.24	4.10
Burgas	4.34	4.29	4.25	4.43	4.11	4.19	4.26	4.22	4.08
Pernik	4.42	4.23	4.18	4.39	4.12	4.16	4.25	4.12	4.06
Blagoevgrad	4.27	4.26	4.25	4.46	4.19	4.29	4.41	4.24	4.04
Vratsa	4.32	4.18	4.21	4.34	4.14	4.21	4.30	4.12	4.04
Pazardzhik	4.38	4.16	4.16	4.35	4.10	4.13	4.24	4.21	4.01
Targovishte	4.06	4.02	3.91	4.04	4.00	4.10	3.99	4.06	3.98
Haskovo	4.27	4.28	4.17	4.31	4.08	4.14	4.13	4.14	3.98
Kyustendil	4.21	4.09	4.22	4.40	4.19	4.28	4.30	4.07	3.97
Pleven	4.32	4.21	4.19	4.33	4.06	4.13	4.10	4.01	3.96
Shumen	4.21	4.71	3.98	4.32	4.00	3.99	4.06	4.05	3.95
Sofia	4.42	4.44	4.68	4.80	4.54	4.44	4.25	4.09	3.90
Montana	4.23	4.14	4.12	4.38	4.10	4.17	4.19	4.04	3.88
Yambol	4.56	3.98	4.31	4.48	4.06	4.16	4.10	3.98	3.87
Kurdzhali	4.28	4.32	4.33	4.51	4.48	4.60	4.71	4.06	3.85
Razgrad	4.09	3.98	3.88	4.08	3.82	3.90	3.91	3.88	3.84
Silistra	4.27	4.12	4.05	4.27	4.13	4.13	4.15	3.88	3.80

Source: Ministry of education and science

Labor market in Sofia (capital city)

	Unit	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
population aged 15-64							
Workforce (total)	*thousand*	652.1	664.8	666.7	676.3	680.1	685.8
Unemployed	*thousand*	43.4	41.1	49.0	56.0	43.5	30.0
Employed	*thousand*	608.7	623.8	617.7	620.2	636.6	655.8
Persons outside the labor force	*thousand*	210.2	263.7	256.2	243.3	239.2	228.3
Economic activity rate	*%*	75.6	71.6	72.2	73.5	74.0	75.0
Employment rate	*%*	70.6	67.2	66.9	67.5	69.2	71.7
Unemployment rate	*%*	6.7	6.2	7.3	8.3	6.4	4.4
Education level							
Higher	*Thousand*	290.7	279.2	279.1	305.1	328.4	
Secondary	*Thousand*	311.9	334.2	330.6	314.1	305.7	
Basic or lower	*Thousand*	21.3	21.8	19.2	13.9	15.3	

Source: NSI

Job vacancies announced at employment offices in Sofia (capital city) in 2015

Sector	Job vacancies announced
Agriculture, forestry and fishing	30
Extractive industries	86
Processing industries	1731
Production and distribution of electricity, heat and gas	95
Water supply; sewerage, waste management and rehabilitation	60
Construction	759
Trade; automobile and motorcycle repairs	3934
Transport, storage and posts	963
Hotels and restaurants	1381
Creation and distribution of information and creative products	549
Finance and insurance	2324
Real estate	2422
Professional activities and scientific research	416
Administrative and support activities	3318
Public administration	958
Education	812
Human healthcare and social work	255
Culture, sport and entertainment	100
Other	900
Unspecified branch	580

Source: National Employment Agency

Sources

Data sources

Main

National employment agency

National Road Infrastructure agency

Ministry of education and science

National statistical institute

EU Funds portal

Sofia Regional Education Inspectorate

Bulgarian University Ranking System

Other

"Local taxes and fees" IME database based on requests for information under the access to public information act

Colliers International

Commercial Real Estate Services

Eurobank Property Services

National Institute of Statistics (Romania)

Numbeo

PricewaterhouseCoopers (PwC)

Salary Explorer

State Statistical Office (Macedonia)

Statistical Office of the Republic of Serbia

testmy.net

Trading Economics

Studies and reports

IME, "Regional Profiles: Indicators of Development" 2012-2015

Ministry of education and science "Management for efficient professional education" project, 2014

Regional development strategy of the district of Sofia (capital city) 2014-2020, 2013

Access to Information Programme, 2016 Active Transparency Rating

Transparency International, Local system integrity assessment, 2015

World Bank, Doing Business reports, 2015-2016

Strategy for the development of professional education and training 2015-2020