



Reports on major Polish cities

Kraków

2011



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Kraków

After a number of difficult decades, Polish cities have now set themselves on a path of rapid development that offers them the opportunity to catch up with other Western European cities and greatly enhance the quality of life of their residents. It is doubtful whether Polish cities have ever before had such a tremendous opportunity.

Despite many difficult years of transition in Poland, sound market-based economic, democratic and socio-political institutions have been built, enabling civic activity to flourish. Cities have taken more and more responsibility for their own strategic decision-making, and for delivering ever greater affluence and quality of life for their residents. The European Union's "Leipzig Charter" sets out urban development principles, stating that development should strive to be sustainable, to satisfy economic prosperity, social equilibrium, environmental, cultural and health goals, and to deliver effective democratic institutions. Poland's membership of the European Union has meant that Polish cities have had unprecedented access to development funds to help them to reach these goals.

In the previous version of this report published in 2006, we principally tried to estimate where cities were at in terms of their access to \ development capital at the point where their growth was just taking off. In accordance with a methodology developed by PwC (formerly PricewaterhouseCoopers) we identified "seven capitals", each of which relates to a crucial area of development, and then estimated each from number of selected indicators.

We have now repeated this process, with a number of key enhancements. We increased the number of cities analyzed from 7 to 11, added a number of indicators that were not available in 2006, and have also been able to assess the rate of change evident between 2006 and 2010 on the basis of the differences between the two reports.

The level of development capital in Polish cities today is a legacy of past events in the region. Polish cities suffered many years of slow growth, followed by a transformation during which a great deal of painful economic restructuring was necessary. It experienced rapid, sustainable growth between 2005 and 2008, only to find itself hit by the global financial crisis. The accompanying radical increase in funds from the European Union budget for regional development offered Polish cities the opportunity to markedly improve development capital in the seven key areas. However, the accumulation of development capital is necessarily a long-term process, and it is often only after years that the payoffs for residents, in terms of increased income, economic activity and quality of life, are evident.

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PwC's Chief Economic Advisor

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Every city must have a certain amount of development capital in order to develop. Over the past few years, Polish cities have managed to clearly increase this capital.

Methodology

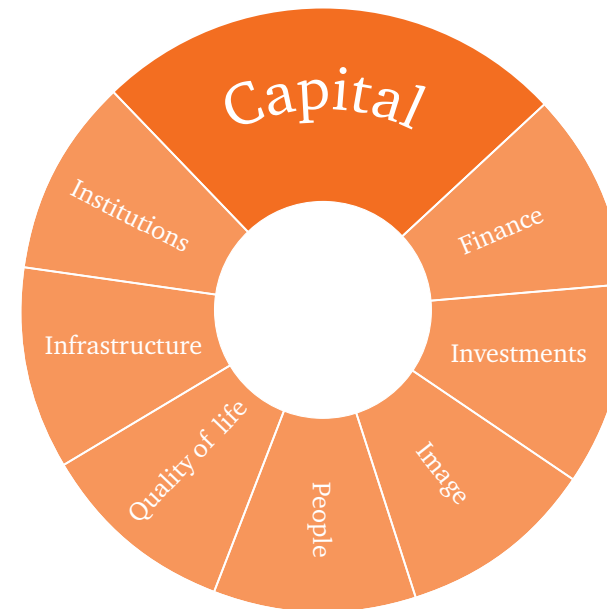
The seven types of capital of Polish cities

Over the past few years, Polish cities have substantially increased their capital. However in many ways, they still find themselves lagging behind the cities of western Europe that they seek to compete with and be compared to.

There are likely to be large amounts of development funds available to Polish cities in the coming years. The purpose of this report is to evaluate the level of development capital of Polish cities now. In doing so, it offers a perspective on the major strengths and weaknesses of Polish cities that will support the development of clear strategies and priorities to enable Polish cities to make the best use of those funds to achieve their goal: to transform themselves into modern, flourishing vibrant population centres.

The measurement of the growth potential of Polish cities is based on a methodology developed by PwC (formerly PricewaterhouseCoopers). It is based on the principle that solid development requires a number of different resources, termed the city's "capitals", to be present at the same time.

We mostly commonly think of the term "capital" in a financial sense. However, modern economics uses and understands the term much more extensively, as applying not only to money but also to resources like the qualifications, knowledge and experience of a population (human capital), the number and quality of their interactions (social capital), and even the value attributable to the way a city is perceived (image capital). These each represent necessary resources for development, and only with skilful investment over years will they mature.



A city with high development potential is a city with all 7 capitals well and evenly developed.

Methodology

Seven development capitals

In analysing the development potential of Polish cities, we use the concept of 7 capitals, each of which is important for the city's development:

- **Human and Social Capital (HSC)** defines the quality of human resources at a city's disposal. This includes the knowledge and qualifications of its workers, the demographic structure (cities with an ageing population are less dynamic than 'young' cities) and the social activity of the inhabitants.
- **Culture and Image Capital (CIC)** relates to how a city is perceived: as an interesting and attractive place, or a cultural desert, for example. The better the image, the easier it is to attract investors to the city and boost the economic and social activity of its residents.
- **Quality of Life Capital (QLC)** reflects the living and working conditions the city offers. It consists of such ingredients as the state of the natural environment, level of health care, quality of educational institutions and people's sense of security
- **Technical and Infrastructure Capital (TIC)** relates to the infrastructure, as broadly defined, of a city: its housing stock, roads, transport systems, as well as shopping centres, ATMs and internet access.
- **Institutional and Democratic Capital (IDC)** reflects the efficiency of the municipal institutions (government and administration) and the level of civil society activity.
- **Investment Attractiveness Capital (IAC)** tells us how strong a magnet the city is for investors, both foreign and domestic.
- **Sources of Finance Capital (SFC)** specifies the extent to which the city is able to obtain cash to finance development.

A city with high development potential is a city with all 7 capitals well and evenly developed. If one of the capitals is less developed, this suggests weakness – and indicates a direction for strategic remedial action.

All of the indicators are defined and calculated in such a way that a higher value indicates that the capital is of a higher quality. It is always measured relative to the average for the 11 cities surveyed, which is 100.

The report's authors have made every effort to source comparable data, and have used the most recent available data (generally from 2009-2010).

Apart from measuring the level of development of the 7 individual capitals in the 11 cities in 2010, the study also tries to measure the change in the capitals that took place between the last and present editions of the report, i.e. 2006-2010 (noting that the previous edition covered only seven Polish cities.)

Due to methodological differences, a direct comparison of the changes between 2006 and 2010 cannot be made; therefore, capital change is measured using a simplified methodology. As such this results in an estimate, and caution should be exercised in its use.

It should also be noted that, where growth rates are concerned, a lower starting point offers greater scope for growth than does a higher starting point. This should be factored in when considering the estimates of growth provided here.

General data on the cities included in the study



Data on the population from the end of 2009, GDP from 2008 (the latest available CSO data).
Source: CSO, PwC

How to read the radar charts in the report?

A radar chart allows us to analyse the city's capital in several areas at the same time: the more indicators being considered, the greater the number of axes on which we place values.

When connected, the points on the axes form a shape (triangle, square, pentagon) where the number of vertices is equal to the number of axes. These diagrams depict a given city's capital development (in red) against the average for the 11 major cities surveyed (in grey).

When analysing the chart, attention should be paid to:

- The size of the image area – the larger the area, the greater the capital.
- The shape of the figure – the more proportional it is, the more balanced is the development of the individual capitals. “Pulling” of the shape in any direction suggests that the capital in that area is more developed than the average, while “recession” along any of the vertices indicates relative underdevelopment.

Study results

General observations

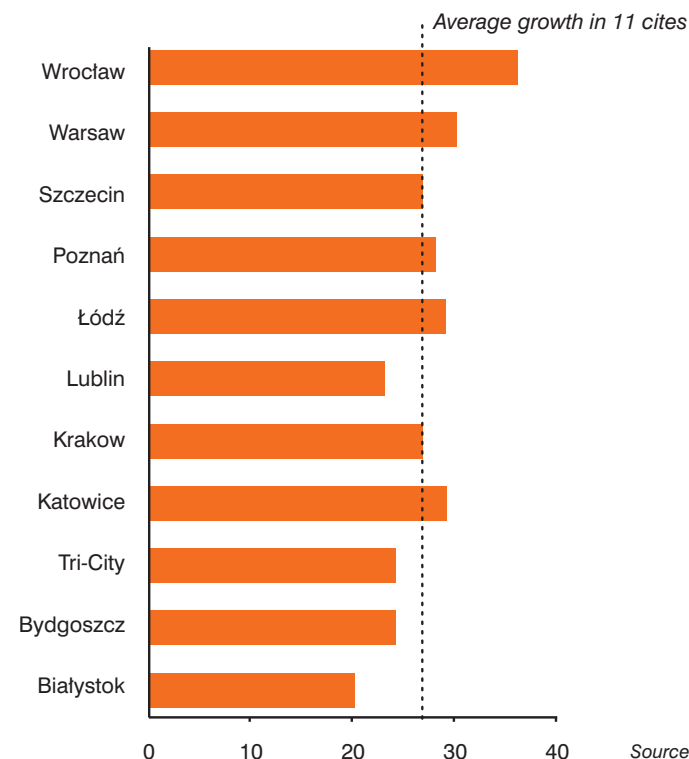
A good five years

The past five years (2006-2010) have proven very positive for Polish cities. The country's development accelerated after Poland's accession to the European Union, partly due to the enormous opportunities created by unprecedented increases in regional development funds. Importantly, this has shown clear results in terms of increases in income and quality of life, improved infrastructure, and more efficient public institutions. The index of economic development* measured for the 11 Polish cities covered by the survey shows a marked improvement in all the cities – its value has increased on average by 27%.

The fastest economic development over the period 2006-2010 was recorded by Wrocław and Warsaw, followed closely by Poznań, Krakow, Katowice and Łódź. A slightly slower than average rate of development was observed in Szczecin, the Tri-City area and Bydgoszcz. However, the main regional metropolitan centres of the “eastern wall”, Lublin and Białystok, developed somewhat more slowly, despite additional special development resources being targeted at these regions from European Union funds. This suggests that serious structural problems continue to hamper market-driven economic growth efforts there.

* representing the weighted average of GDP growth per capita (real) from 2005-2007, growth in real incomes 2006-2010, and reduced unemployment.

Growth index of the economic development of Polish cities, 2006-2010



Source: PwC

Study results

Growth of 7 capitals

Development capital increased everywhere

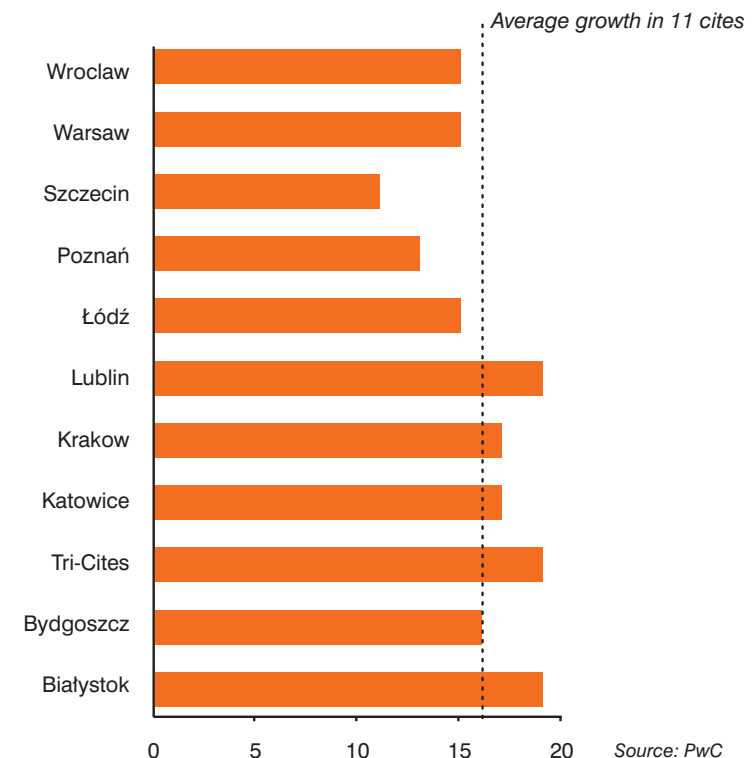
Polish cities took advantage of good development conditions in 2006-2010 to significantly increase their development capital. We estimate this growth to be 16% on average, meaning that each type of capital increased, on average, by this amount in each of the cities studied.

However, development has not been uniform. The greatest successes were achieved in the areas of Investment Attractiveness Capital and Culture and Image Capital, whereas the slowest progress was made in the areas of Technical and Infrastructure Capital and Quality of Life Capital. This is not surprising, as infrastructure is built up over many years while quality of life only increases as a consequence of sustained successes in other areas.

Of the cities studied, the fastest average growth of the 7 capitals was recorded in Lublin, Białystok and the Tri-City area. To a large extent, this is the result of the large amounts of development funding, mainly from the EU, that have been directed to Poland's eastern cities. However, this increase has not yet translated into accelerated economic growth among other "eastern wall" cities.

Capital grew at a rate that was slightly above average in Kraków and Katowice, and slightly below in Bydgoszcz, Łódź, Wrocław and Warsaw. However, the development capital of Poznań and Szczecin increased noticeably more slowly. It is worth re-stating, at this point, that a lower initial level offers greater scope for growth than does a higher starting point, and that this factor may be influencing these results.

Estimated growth of the average value of 7 capitals of Polish cities, 2006-2010



Study results

Comparison of capital growth

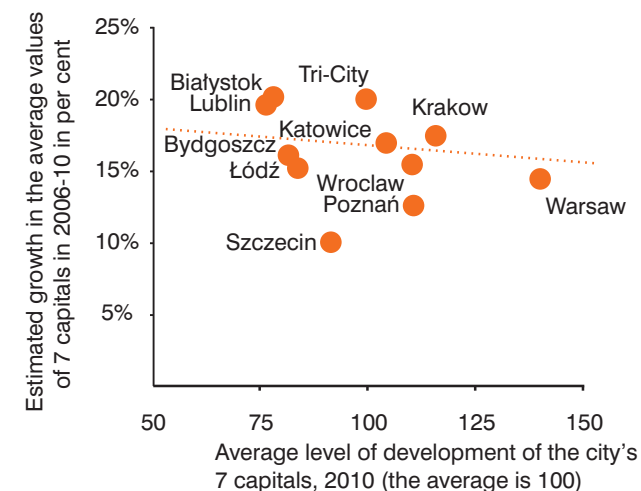
Disparities are slowly declining

Generally speaking, over the period 2006-2010, the lower the starting level in a given city, the faster was its average increase in capital, leading to reduced inter-city disparities. This trend is so far relatively weak, but it should strengthen with the adoption of appropriate strategies for city development and the effective utilisation of development resources. However, we note that in the case of Szczecin and to a lesser extent Poznań, the estimated average capital growth was markedly slower than might have been expected.

Relationship between economic development and the capitals

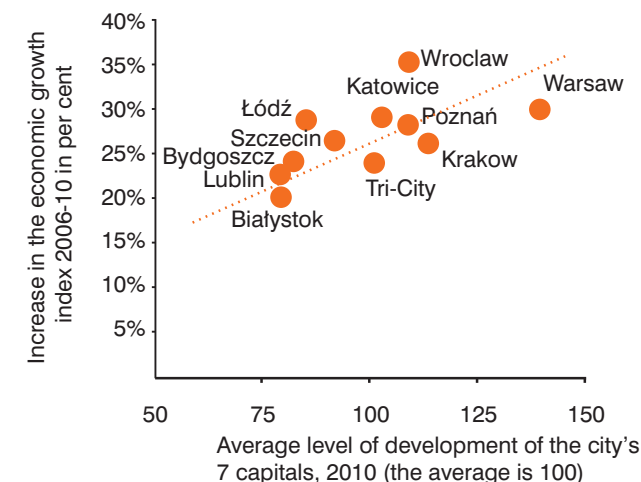
A high level of development of all 7 capitals indicates favourable economic development conditions, and consequently better quality of life for a population. An analysis of the data on the average level of the 7 capitals recorded in the 11 cities studied, paired with economic development index data for the period 2006-2010, does indeed suggest a close relationship between the 7 capitals and economic growth. In the case of Wrocław, the results on economic growth are slightly better than would be expected given its 7 capital resources.

The level and growth of 7 capitals of Polish cities



Source: PwC

Level of 7 capitals and economic success of Polish cities



Source: PwC

Kraków

Key conclusions and recommendations



Kraków

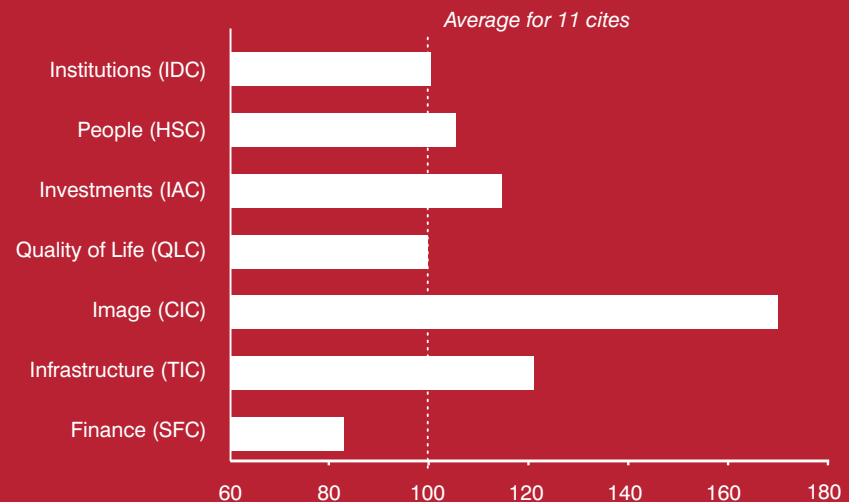
Key conclusions and recommendations

An old jewel needs modern encasement

Although in many areas Krakow ranks second among large Polish cities right after Warsaw – we may get an impression that it feels somewhat dissatisfied.

The intuition tells us that the city should develop even faster and even better utilize its advantages, especially when it comes to building a modern, knowledge-based economy, and successfully combine tradition with modernity.

Kraków – overall assessment of development of 7 capitals



Source: PwC

Key conclusions and recommendations

The city has two main attributes: First of all, it enjoys an opinion of an attractive place which is characterised by high quality of life and large intellectual and cultural potential. Secondly, it has great human capital, educated general public and one of the best academic centres in Poland. This is complemented by efficient operation of municipal institutions and relatively well developed infrastructure. All this should translate itself into excellent results in terms of economic development, and it should make Krakow the centre of growth of knowledge-based economy which is visible on the European scale. However, such ideas are – to large extent – only the aspirations, and the city should make great effort to fully utilise its chances.

City's biggest strengths:

- Excellent image of the city and high tourist attractiveness.
- Cultural, social and educational potential.
- High quality of life (as compared to other Polish cities).

Major challenges:

- Further improvement of conditions for investing.
- Improvement of the city's finances, including utilisation of alternative financing instruments for projects carried out by the city.
- Condition of natural environment which needs improvement.

People are the most important and the most valuable resource determining a city's chances for development. There is no substitute for people's skills, their willingness to work, and the business and social activity they engage in.

People

Why do we measure Human and Social Capital?

People are the most important and the most valuable resource determining a city's chances for development. In the modern world, it is possible to buy almost anything. You can rent an advertising agency to promote a city, find investors to provide funds for infrastructure development, and build efficient administration and online systems for providing services to inhabitants. But there is no substitute for people's skills, their willingness to work, and the business and social activity they engage in. In the longer term, it is the people – the Human and Social Capital, being a set of characteristics describing the human resources – that determine a city's economic development and its success. Human Capital is typically associated with intellectual resources while Social Capital describes the quality of the civil society. It is easy to imagine that the level of Human Capital – people's intellectual capabilities and skills – translate directly into economic development.

However the reality is a little more complicated. Human Capital influences the community's economic development and improves its quality of life in less obvious ways, such as reducing corruption, fostering long-term investment and disseminating knowledge, preventing abuse of common goods, speeding the investment process (by reducing the probability that administrative decisions will be appealed). In addition, through development of the third sector, it is conducive to greater social control over actions taken by authorities. (Source: *Social Diagnosis 2009*.)

The value of Human and Social Capital depends on many factors. Some of them can be influenced only to a relatively small degree (e.g. demographic structure). It is also not possible to force people to conduct business or social activity – although attempts may be made to encourage them to do so and facilitate any initiatives to that effect. However, in certain areas e.g. in education or on the labour market, the potential for action on the part of municipal authorities is quite high.

Measuring Human and Social Capital (HSC)

The Human and Social Capital score constitutes an aggregate measurement of the value of a city's human resources, taking into account the following five characteristics: demographics, education, and citizen's attitudes towards the free market, labour market activity and civil society engagement.

HSC: demographics

The demographic make-up of a city is one of the most important determinants of its Human and Social Capital and is, in the first instance, defined by its age structure and the number of very young children. The basic demographic criteria used to measure HSC include the demographic burden ratio, the share of elderly in the city's population, and the number of births per 1000 inhabitants.

Krakow's demographic situation is quite good. The demographic burden ratio is 0.52 (which means that for each two persons in the employment age there is a little more than one younger or older person), and such result is better than average among the analysed large Polish cities.

In similar fashion, the share of persons in post-employment age may also be considered favourable (18.9%), while the childbirth rate is at the average level in the analysed group of cities (10 children per 1000 inhabitants).

*With the average level of HSC of 100 in terms of demographics for the 11 compared cities, the value of HSC in Krakow to that effect is at a comparable level of **100.5**.*

In a modern economy, the quality of the human resources of a population is determined largely by its skills.

People

HSC: education

In a modern economy, the quality of the human resources of a population is determined largely by its skills. Measuring this therefore involves measuring the average education of the inhabitants: the better their education, the higher the city's attractiveness in terms of investing and conducting business activity.

With the importance of the information society and the knowledge-based economy, it is impossible to ignore such aspects of education as knowledge of information and communication technologies, knowledge of foreign languages, and access to education and training in these areas when discussing Human Capital attainment. However, in order to avoid the repetition of similar indicators for the individual Capitals, these aspects have been taken into consideration in the Investment Attractiveness Capital and Technical and Infrastructural Capital.

Here, HSC is measured in terms of share of persons with university and high school educations, the number of high school and university students per 1000 inhabitants, and newspaper readership (the percentage of people who regularly read one of the three main national dailies). These last two were introduced in this year's survey, which reduces the direct comparability of HSC with earlier reports.

Krakow's situation in terms of education of the general public in comparison with other 11 cities is very good. The share of people with university education is 21%, and higher share is recorded only in Warsaw. Krakow prides itself in high share of students among its inhabitants. The newspaper readership ratio is also above average in the group of analysed cities.

With the average level of 100 for the 11 cities, the value of HSC for Krakow in terms of education is at the level of 112.4 and it is second-highest after Warsaw.

People

HSC: attitudes towards the free market economy

Development is also affected by the attitude of citizens towards the market. In locations where people are more pro-market, they adapt more easily to the demands of the market and are more economically active and successful.

HSC in this area is measured by the proportion of persons engaged in business activity.

On the basis of accepted indicators, the attitude of Krakow's residents towards free market economy may be considered positive. The share of persons conducting business activity is 14.6%, which is higher than average for the analysed cities.

*With the average level of 100 for the 11 cities, the value of HSC in Krakow in terms of pro-market attitudes is at the level of **103.9**.*

HSC: labour market

The labour market conditions, from a Human Capital perspective, principally relates to the availability of employees with skills sought by employers. In a city with high Human Capital, there should be low unemployment.

As such, the HSC indicator regarding the labour market is measured by the unemployment rate, both overall and that specifically for youth.

The situation on Krakow's labour market is favourable. The unemployment rate is 3.5%, which is more than 1.5 percentage points less than the average unemployment in the group of analysed cities. On the other hand, the unemployment rate among young people is higher than average.

*Overall assessment of HSC with regard to labour market is optimistic. With the average level of 100 for the 11 cities, the value of HSC in Krakow is at the level of **105.7**.*

People

HSC: civil society engagement

A high level of engagement in civil society indicates high Social Capital – people are involved in common interest activities .

HSC with regard to civil society engagement is measured by access to Internet resources and average voter turnout (parliamentary elections in 2007, presidential and local government elections in 2010).

The engagement of the civil society in Krakow may be considered moderate. The voter turnout during the elections is slightly above average – it is 58% while the average rate for all cities is 56%. The activity of non-governmental organizations on the Internet was slightly above average for the analysed cities.

With the average value of 100 for the 11 cities, the value of HSC in Krakow in this area is at the level of
100.7.

People Summary

Krakow's Human and Social Capital

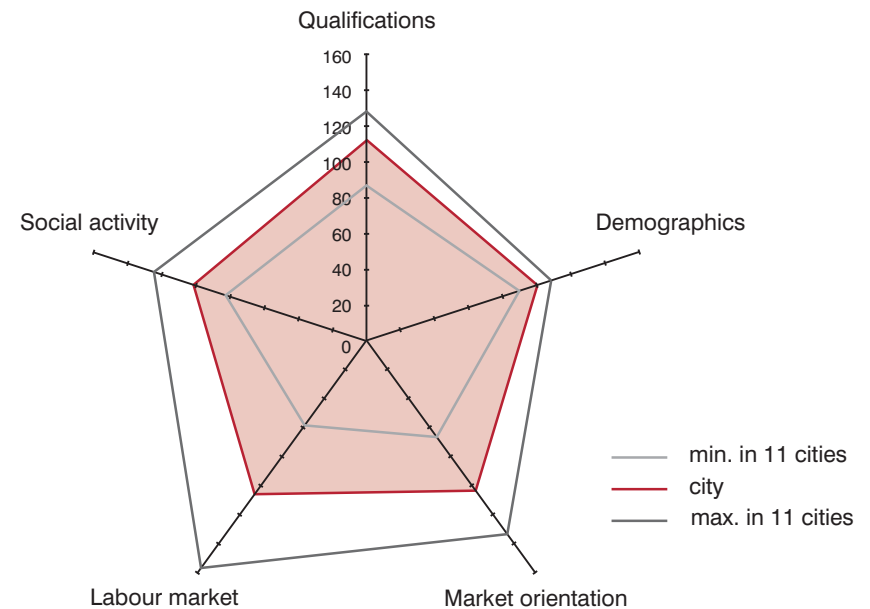
Krakow's Human and Social Capital is high. The city enjoys favourable demographic situation and one of the best educated communities in the country. The situation on the labour market seems to be stable. The only thing, which should be improved, is the situation of young people – the city should take more decisive actions to better utilise the great potential of well-educated and large group of students.

With the average level of 100 for the 11 cities, the value of Krakow's total Human and Social Capital is at the level of 104.6.

While utilising its advantages resulting from high quality of life and excellent image, Krakow may attract people from other Polish cities.

The area, which requires greater effort on the part of the city, is the activity of non-governmental organizations. Krakow should also do more to promote pro-market attitudes and entrepreneurship among its inhabitants.

People – Krakow



Quality of Life

Why do we measure Quality of Life Capital?

If a city wants to succeed economically in the long term, it must provide good living conditions for its inhabitants. A high quality of life in a city will cause people to decide to live and work there, including those who will reject offers to move to different domestic or foreign cities, and investors will be more inclined to relocate business activities. A high quality of life also leads to pride and satisfaction with one's own city, while a low quality of life yields disillusionment and frustration.

The quality of life in the city is made up of many factors. The condition of the natural environment is one important aspect, as are access to good quality medical and educational services. A sense of security is of tremendous importance. The best entertainment centres and services cannot guarantee that inhabitants and guests will feel comfortable in the city if a sense of security is lacking.

Measuring Quality of Life Capital (QLC)

Quality of Life Capital largely determines the extent to which the city is considered a good place to live and work. It is the most debatable capital (besides Culture and Image Capital). It is also the most difficult to present as a single ratio. In the Polish market there are several indicators that pertain to various aspects of the function of a metropolitan area. These include for example the number of cultural events or hotels of a given standard.

In our reports, these are covered in the Culture and Image Capital or the Investment Attractiveness Capital.

However, considering the importance of healthcare and sense of security to the overall quality of life, we decided to stay with the definition that was adopted four years ago, which is also consistent with PwC's global methodology. This also allows direct comparability with the previous edition of these reports.

Hence, when measuring QLC, we take into account four aspects of quality of life: the condition of the natural environment, level of medical services, level of educational services and sense of security.

Cities with a good natural environment give their inhabitants a much greater sense of comfort and satisfaction with life.

Quality of Life

QLC: condition of natural environment

Cities with a good natural environment give their inhabitants a much greater sense of comfort and satisfaction with life. It should be remembered that in the field of environmental protection – as in many other fields – commonplace opinions are difficult to overcome, and spectacular failures or successes (such as appearance of fish or bird species which have not been seen for many years) very frequently have greater impact than technical measurements of environmental pollution.

The selected indicators that we use to measure QLC in terms of the condition of the natural environment include air pollution measurements (emission indices for various types of gaseous and dust pollutants), number of cars per km² in the city limits, capital expenditures on environmental protection and percentage of treated sewage.

The condition of natural environment is a serious problem for Krakow. The degree of air pollution (especially in terms of airborne dust) is the highest amongst the analysed cities. The car traffic intensity is slightly above the average level for the 11 cities (1257 cars per km² vs. the average of 1199 for the analysed cities). The quality of water in the rivers flowing through the city is the cause of concern. However, Krakow may claim the fact that 100% of its sewage is treated. On the other hand, the city's capital expenditures related to environmental protection are insufficient as compared to other analysed cities.

*With the average level of QLC in terms of the condition of the natural environment of 100 for the 11 cities, QLC in Krakow in this regard is at the level of **74.4**.*

QLC: healthcare quality

The availability of medical services of adequate quality is one of the factors that exerts considerable influence on the assessment of living conditions in the city. While certain problems in this area are common to all Polish cities, individual cities also fare very differently.

The basic ratios selected for measurement of QLC in the area of medical services include the number of physicians per 1000 inhabitants, infant mortality rates, and the ranking of healthcare centres (by the Centre for Monitoring Quality in Healthcare and “Rzeczpospolita”), as well as the average waiting time for an appointment with a given specialist physician. The last two ratios were not available when the previous edition of this survey was carried out.

The situation related to accessibility of good quality medical services in Krakow is relatively good. Number of physicians per inhabitant is slightly lower than the average value in the 11 cities. On the other hand, Krakow may claim the second-lowest (after Bydgoszcz) infant mortality (3.8 vs. the average of 6 per 1000 inhabitants). On average, Krakow's hospitals earned higher scores than other medical facilities in the group of analysed cities.

*With the average level of 100 for the 11 cities, the value of QLC in Krakow in terms of healthcare is at the level of **114.9**.*

Quality of Life

QLC: education quality

The quality of educational services is usually one of the first issues considered when assessing the overall quality of life in a city. Good schools and highly ranked universities attract new inhabitants and are important when making the decision to move, either temporarily or permanently (which results in greater availability of highly skilled employees). Good education also facilitates the city's social and economic progress due to the fact that it positively influences its development prospects. Active innovation and education policy is one of the main priorities for sustainable development specified by the EU document referred to as the Leipzig Charter. According to this document, cities are centres for the creation and transfer of knowledge, and the sustainable development of metropolitan areas should take into account the need to continuously increase the level of education. The indicators used for measuring QLC include scores recorded by the city's most important universities in the university rankings (in "Perspektywy" magazine), the success rate

of high school-leavers in 2009, and results recorded on 6th grade exams and junior high school-leaving exams in 2008. This indicator is new in this edition of the survey.

Krakow's ratios concerning educational services are the highest in Poland. In terms of universities, the city ranks second after Warsaw. The situation is similar in the area of passing rate of the high school-leaving exams (86% vs. the average of 83.4% in the 11 cities).

*With the average level of 100 for the 11 cities, the value of QLC in Krakow with regard to quality of education is at the level of **123**.*

QLC: sense of security

Sense of security encompasses many dimensions: physical security of the inhabitants (the crime rate and road traffic safety), protection from natural disasters and accidents, and a sense of security in terms of access to healthcare and job opportunities are all equally important.

While measuring QLC for sense of security we limited ourselves to the area of physical security and used the following indicators: number of recorded crimes and number of traffic accidents per inhabitant.

On the basis of the accepted ratios it may be concluded that Krakow appears to be the metropolitan area which provides its inhabitants and visitors with quite moderate security. In Krakow, the number of crimes as well as the ratios of accidents and collisions are above average for the analysed cities. On the other hand, Krakow enjoys an opinion of the city which handles well the security of mass events.

*With the average level of 100 for the 11 cities, the value of QLC in Krakow in terms of security is at the level of **89.3**.*

Quality of Life

Podsumowanie

Krakow's Quality of Life Capital

Overall evaluation of the Quality of Life Capital in Krakow is high. There are certain problems in the area of condition of natural environment (especially with regard to air pollution). In addition, in comparison to other cities, Krakow's results in terms of the sense of public security are average.

However, this is compensated by the access to good quality healthcare and excellent results in the area of education.

It is beyond doubt that improvement of condition of natural environment should be in the centre of the city's strategy. The activities aiming at improving security will also constitute a challenge.

With the average level of 100 for the 11 cities, the value of Quality of Life Capital in Krakow is at the level of 100.4.

Quality of Life – Krakow



Image

Why do we measure Culture and Image Capital?

In the modern world and in the modern economy, decisions to purchase goods and services are made not only on the basis of actual values, but also on the basis of our opinions about a product. A product's brand is an important aspect of this: its prestige, quality and the trust we have in it. A similar principle holds true for cities. In addition to the things that a city offers its inhabitants and companies, our opinion of it, i.e. its image, is very important. A city that enjoys the image of a robust, friendly and interesting place with a good standard of living will attract both tourists and investors.

The image of the city depends on many factors. Since the previous edition of "Reports on major Polish cities", we have seen tremendously positive changes in Culture and Image Capital at the strategic and qualitative level. In most of the cities, image is no longer shaped by accident but is, to much greater extent, the result of more or less consistently executed promotional strategies. Positive results for cities that started regular promotional activities

early can be clearly seen throughout Poland and Europe. For the others, changing the image among inhabitants, investors and tourists will necessarily involve long-term efforts. In this report we decided to avoid a detailed analysis of the quality, effectiveness and consistency of activities conducted by individual cities in the image-building area, as such processes are to great extent evaluated subjectively. For the purposes of this publication, we limit ourselves to indicators which are objective and measurable.

As this report is being prepared, some of the cities being analyzed are facing tremendous opportunities to shape their image in Europe.

Firstly, Poland will have the presidency of the European Union in the second half of 2011, and subsequently host Euro 2012. In addition, these reports were being compiled, it became known that five Polish cities have qualified to compete further for the title of European Capital of Culture. For Gdańsk, Katowice, Lublin, Warsaw and Wrocław this means very intensive activities in the area of Culture and Image Capital.

However, we see participation in the qualifying round itself as important – it has the potential to start a debate on the how the candidate cities should promote their cultural attributes and may result in several new initiatives and a comprehensive approach to development in this area.

As part of city strategies for development and promotion, Polish cities have been increasingly considering the sustainability of their development strategies. This is of key importance to the cities' development, their image, and the quality of life they will be able to offer in the longer term. Polish cities are increasingly beginning to consider sustainable development issues in a comprehensive and long term manner; this applies to both larger cities and smaller townships. The tasks related to implementation of principles and strategies for sustainable development are also increasingly frequently reflected in lists of duties and tasks for the individual departments of local government bodies.

In sustainability terms, Polish cities are also active internationally: 10 cities signed the mayors' agreement declaring limits on CO2 emissions, and 12 cities (all those covered by this analysis plus Rzeszów) belong to the EuroCity network which includes the largest European cities and focuses on challenges facing the European Union, including climate change and social exclusion.

Culture and Image Capital is a measure of how the city is perceived – by its inhabitants as well as outsiders.

Image

Measurement of Culture and Image Capital (CIC)

Culture and Image Capital is a measure of how the city is perceived – by its inhabitants as well as outsiders. Like many of the capitals, it can give rise to lively debates and strong emotions, and the range of potential indicators that can be used to attain it is very broad.

What is important is the fact that even a broad selection of available indicators does not always mean the value obtained is precise, making the analysis extra difficult. We preserve the methodology adopted four years ago and, in measuring CIC, take into account three characteristics: general opinions of the city, high culture, and the culture of daily life.

CIC: general image of the city

General image consists of the city's overall recognisability, its generally recognized attractiveness, as well as the perception of its values by its inhabitants (e.g. traditions of honesty and hard work).

The basic indicators we have used to measure CIC as regards general image are: the number of "good associations" with the city on the Internet (e.g. number of websites with the city's name and the word "culture" in them), number of tourists visiting the city, the number of words a city warrants in a typical tourist guide to Poland and tourist opinions expressed on online travel sites, and the observed rate of entrepreneurship (a new indicator for this edition of the survey).

Krakow has an excellent image. It is the most recognizable Polish city in the world, mostly due to rich historical and cultural traditions. For this reason, Krakow is also very attractive from business standpoint. The city is very well positioned on the Internet and it attracts many tourists. The majority of Google inquiries with regard to Polish cities pertain to Krakow.

With the average level of CIC in terms of overall image of 100 for the 11 cities, the value of CIC for Krakow is at the level of 248.4, which is the highest among the analysed cities.

Image

CIC: high culture

A city's image largely consists of its activity in the area of so-called high culture. Although a relatively small percentage of inhabitants and guests use such services, these are significant cultural events that are more likely to be publicized in the opinion-making media and shape the city's image as an interesting, attractive and appealing place.

The basic indicators selected for measuring CIC with regard to high culture include the city's culture budget, the number of concerts, film festivals, theatre festivals and classical music festivals, as well as concert attendances (all per number of inhabitants).

Krakow's budget earmarked for culture is the highest in the country (despite crisis and the necessary budget cuts). Krakow may claim large number of theatre festivals and classical music festivals in comparison with other analysed cities. There are also many mass concerts and chamber music concerts of different types. Only the number of film festivals is below average. It is worthwhile to note the efforts aimed at strengthening the high culture in the city through, among other things, promotion of the event under the name of "6 Zmysłów" ("6 Senses"), which was designed to become Krakow's cultural brand.

*With the average level of 100 for the 11 cities, the value of CIC in Krakow in terms of high culture is at the level of **141.4**.*

CIC: daily cultural life

A city's inhabitants and guests form an impression of a city on the basis of the daily cultural life: the selection of restaurants, hotels, number of cinemas, number and quality of parks, and number of popular mass events.

The indicators used to measure this aspect of CIC include: the number of cinema seats, number of restaurants, number of sport stadium seats (including those under construction, including planned Euro 2012 facilities) and the green areas within the city's administrative boundaries (all per number of inhabitants).

Krakow's ratios related to daily life culture are at a good level. The city has above-average number of restaurants and cinema seats. The number of stadium seats is close to the average value in the 11 cities. In comparison with other cities, Krakow has relatively small number of green areas per one inhabitant.

*With the average level of 100 for the 11 cities, the value of CIC in Krakow in terms of daily life culture is at the level of **118.3**.*

With the average level of 100 for the 11 cities, the value of Krakow's Culture and Image Capital is at the level of 169.4. It is the highest level amongst all large Polish cities.

Image Summary

Krakow's Culture and Image Capital

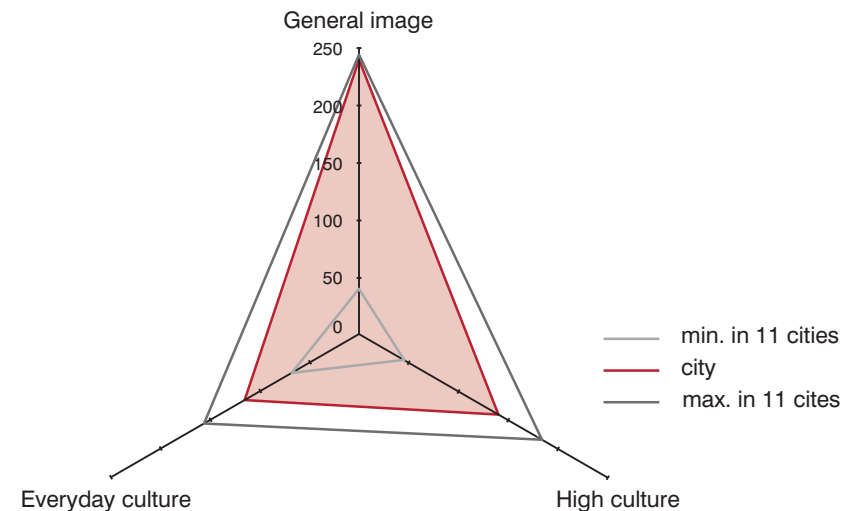
Krakow is very well recognizable in the world, and it is the showcase of our country. The city deserves the name of Poland's tourist jewel. Thanks to its rich cultural offer, it is highly ranked amongst the centres of high culture, and it also holds the top spot on the map in terms of locations with the best daily life culture.

While already owning a very strong brand in the area of leisure time and daily life culture, which was successfully built in the previous years, the city now has to expand its position to even bigger extent to include high culture and business tourism. The city should display consistency in selecting and promoting events related to high culture in the manner that allows to capitalize on the current image. At the same time actions should be taken to avoid references to this part of the city's "cultural offer" which is commonly known especially to the British tourists. Krakow is balancing between tradition and modernity – while being strongly embedded in tradition, it aspires to the role of a modern metropolitan area.

Therefore it is also important to start the debate on the balance of tradition – on one part, and robustness and modernity – on the other part, in Krakow's brand. The young and robust image of the city is supported by Krakow's image as the location which is valued by the investors from new technologies sector, houses the Life Science cluster and has the common opinion of the city which is friendly to students. The actions taken by Krakowski Park Technologiczny (Krakow Technology Park), which promote Krakow and Małopolska district as the region of knowledge and high technologies, are increasingly visible. We assume that it is possible to use Krakow's "young" and modern image for the purpose of developing the city's business attractiveness.

While planning the city's long-term strategy for development and promotion, it should be also remembered that as the new generations of tourists arrive, the ways in which they absorb the content (e.g. in the form of multimedia) also change. The "sports tourism" or "wellness tourism" become an alternative for tourism involving sightseeing.

Overall Image – Kraków



Institutions

Why do we measure Institutional and Democratic Capital?

Institutional and Democratic capital determines the degree to which institutions which manage the city function effectively, e.g. city authorities, public administration and maintenance services. It also reflects the level of civic activity of inhabitants and effectiveness of democratic mechanisms, as well as the level and effectiveness of communication between the authorities and the society.

In cities with high Institutional and Democratic Capital, it is easier to develop and exercise a consistent development strategy. Authorities which are controlled democratically can perform their duties more effectively and have a stronger social mandate for managing the city, while the activities of the citizens supports them on the road to achieving common goals. This facilitates the achievement of success in terms of economic and social development.

Measuring Institutional and Democratic Capital (IDC)

The Institutional and Democratic Capital of a city is made up of the quality of the authorities' actions, the activities of the inhabitants, and communication between the authorities and the people.

IDC is measured in three areas: the effectiveness of municipal institutions (authorities and public administration), their performance of the basic function of ensuring public safety, and non-governmental organization activity.

Institutions

IDC: administrative effectiveness

Opinions regarding the city's authorities and administration are based on the experiences of inhabitants and visitors. These judgments are influenced by the way the authorities communicate with the society: whether citizens are included in strategy development, and whether explanations of the problems and goals of various activities is provided. A constructive dialog with inhabitants contributes to both a streamlined process of strategy development as well enhanced performance, since a document developed in a such a manner will better take into consideration the problems facing inhabitants and offer solutions.

The primary indicators used to measure IDC in terms of the effectiveness of municipal institutions are: administration expenses (compared to the population), indicators of the effectiveness and availability of offices indicated by waiting times for entry in the economic activity register, office opening hours that reflect citizens' needs, and opportunities to use online office services (new in this edition), and the percentage of votes received by the incumbent president in the local government elections of 2010 (also new in this edition).

Municipal institutions in Krakow are highly effective. Krakow belongs to the group of cities with the shortest waiting time for the entry in the economic activity register. Expenses on public administration are slightly below the average in the group of the analysed cities. The availability of the city's office for the citizens is at a similar level. The possibility of using web-based office services is at a level close to the average in the 11 cities. The incumbent president had to fight hard to win the local government elections in 2010, which may suggest that the people do not agree how to assess effectiveness of municipal institutions.

*With the average level of 100 for the 11 cities, Krakow's IDC in terms of effectiveness of administration is estimated at **107.8**.*

Institutions

IDC: public safety expenditure

Assessment of municipal institutions is largely based on their actions in the crucial area of safety: expenditure on law and order services, and the extent to which people trust these services. It is worth noting that citizens' assessments of authorities' efforts in this area can be separate from their actual perception of security (taken into consideration in the Quality of Life Capital) – in other words, there are cities with a high crime-rate despite the considerable efforts of the authorities, as well as cities where both expenditure on safety and crime-rates are low.

In measuring IDC in terms of public safety, the following indicators were used: the city's expenditure on safety, the number of police and city guards (all per 1,000 inhabitants) and the crime detection rate.

Considering the fact that public safety in Krakow is at a moderate level, it is needed to make efforts to change this state of affairs. Even though Krakow earmarks more funds for this area than the average for the 11 cities, the number of police officers and guards is lower than the average. The crime and crime-detection rates are also below average in the analysed cities.

*With the average level of 100 for the 11 cities, IDC in terms of expenses on safety for Krakow is at the level of **95.6**.*

IDC: non-government organization activity

A high level of non-government organization activity contributes to the better operation of democratic mechanisms, increased scrutiny of authorities' actions on the part of citizens, fostering of partnerships between the city's inhabitants and its authorities, as well as the increased involvement of citizens in working out and implementing a city's development strategy.

IDC in terms of non-government organization activity is measured by analysing Internet sources to ascertain the number and level of activity of non-government organizations registered in the city.

The level of activity of non-governmental organizations in Krakow is comparable to the average for the 11 analysed cities. There are 4.9 non-governmental organizations per 1,000 inhabitants (the average for the analysed cities is 5). The activity of these organizations as evaluated through Google searches is at a similar level.

*With the average level of 100 for the 11 cities, Krakow's score with regard to activity of non-governmental organizations is at the level of **99.0***

Institutions

Summary

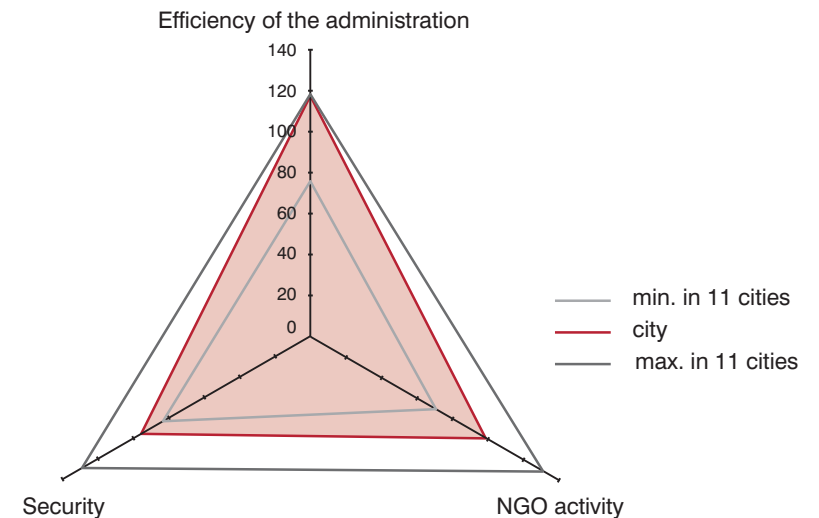
Krakow's Institutional and Democratic Capital

Institutional and Democratic Capital in Krakow is at an average level. With respect to efforts to improve public safety, Krakow is below average in the analysed cities. In view of the low sense of security observed in inhabitants and visitors when measuring quality of life, it seems necessary to increase the city's efforts in this area.

The city should also put more effort into planning actions in favour of non-governmental organizations. Relatively weak institutions of civic society are inconsistent with the high level of education of people living in Krakow, which contributes to weakening of democratic mechanisms.

With the average level of 100 for the 11 cities, Krakow's Institutional and Democratic Capital is 100.8.

Institutions – Kraków



Infrastructure

Why do we measure Technical and Infrastructural Capital?

Effective infrastructure – including efficient transport, housing resources, services infrastructure, media and utilities (both more traditional such as power and water, and modern such as telecommunication and the Internet) is a prerequisite for creating an efficiently functioning metropolis where people can live and do business. The advantages that flow from well-developed Technical and Infrastructural Capital directly influence the other Capitals, in particular Quality of Life, Human and Social, and Investment Attractiveness. Without sufficient, or sufficiently developed, Technical and Infrastructural Capital, progress in the other areas will be considerably slower than in cities with well developed infrastructure, and people's quality of life deteriorates, the city's image worsens, and its attractiveness as a place for locating investments diminishes.

For these reasons, we regard Technical and Infrastructural Capital as warranting special attention.

It is important to remember that to have effective infrastructure in place requires not only the presence of concrete resources such as transport systems, buildings, equipment and installations, but also a level of organizational efficiency in management and administration that allows these to be fully utilized. The actual Technical and Infrastructural Capital level often depends also on the efficient operation of the markets for services, media and utilities and housing. Renting or buying appropriate housing is as difficult as in a city with no housing resources available as it is in a city with extensive housing resources but an inefficient market.

Measuring Technical and Infrastructural Capital (TIC)

The city's Technical and Infrastructural Capital has a strong impact on the city's attractiveness as a place to live and do business. The TIC assessment is usually based on the experiences and observations of the city's inhabitants and visitors. Negative opinions that gain traction can destroy a city's image, even it does well in other areas.

In our opinion, there are four kinds of infrastructure crucial for successful development: transport infrastructure, energy and IT infrastructure, housing infrastructure, and trade and services infrastructure.

The availability of low-priced apartments or houses in the city depends both on the number and quality of housing resources in the city and on the efficiency of the real estate market.

Infrastructure

TIC: transport

A general assessment of the efficiency of the transport network in the city needs several factors to be taken into consideration: road infrastructure, alternative forms of transport, the quality of public transport and the quality of the city's connections to the outside world.

The indicators used to measure TIC for transport are: density of the road network, number of bicycle lanes, number of public transport seats in relation to the population, as well as the number and quality of the city's connections to the outside world: the number of direct flights (airports within a 100 km radius), time taken (by train) to reach the five largest Polish cities (a new indicator in this edition of the survey), access to the European motorway network (a new indicator in this edition of the survey). In combination, these indicators give us a general idea of the quality and development of the city's transport infrastructure.

Krakow's situation regarding transport is good. The above result resulted to the greatest extent from wide availability of international flights and proximity to the European network of highways. Considering flights, however, it should be pointed out that the airport in Katowice-Pyrzowice is being increasingly competitive. Krakow has good railway connections with other Polish cities. In the area of public transport, Krakow performed several considerable investments (including fast tramway). As a result, there are some more seats available in public transport in Krakow than in the analysed cities on average.

With the average level of 100 for the 11 cities, the value of TIC in terms of transport for Krakow is at the level of
116.6.

TIC: apartments

The availability of low-priced apartments or houses in the city depends both on the number and quality of housing resources in the city and on the efficiency of the real estate market. A more efficient market will facilitate the attraction and retention of highly-qualified workers in the city, and draw new investors to the city.

The primary indicators used to measure TIC in terms of housing are: number of housing units per 1,000 inhabitants, quality of the housing resources (measured as percentage of units with bathrooms), the growth rate of housing resources and average rents on the secondary market.

Krakow's housing resources are at the level of 412 apartments against the average of 413 apartments, in each case per 1,000 inhabitants. The apartments are of a relatively good quality. In the years 2004-2008, Krakow had the highest increase of apartments after Warsaw (7.7 per 1,000 inhabitants). The indicator concerning apartment prices on the secondary market is below the average in the 11 analysed cities, which results from a higher price of a square meter of an apartment in Krakow.

With the average level of 100 for the 11 cities, the value of TIC in terms of housing resources for Krakow is at the level of
107.9.

Infrastructure

TIC: media and utilities

Without efficiently and reliably supplied media and utilities, it is difficult for a city to establish an image as a good place to live, and above all, a good place to do business. This is true both for the traditional utilities (power, gas, water) as well as modern media mechanisms (telecommunication, internet), which afford innovative growth opportunities and make it possible for citizens to make full use of their knowledge and skills.

The following indicators were used to measure TIC in this respect: the percentage of people using the water supply and sewage networks, power consumption by households (which is associated with the number of durable goods in a household), the estimated number of Internet users (per 1,000 inhabitants), and the percentage of the city area covered by free access to wireless Internet (the last two indicators are new in this edition of the survey).

In the case of utilities, the indicator of the percentage of people using the water supply and sewage networks is at the average level for the analysed cities. Power consumption is higher by nearly 25%. The percentage of Internet users is lower than the average for the group of analysed cities, even though Krakow has the greatest percentage of space with free access to the web.

With the average level of 100 for the 11 cities, the value of TIC in terms of media and utilities for Krakow is at a favourable level of 135.4, mainly due to accessibility of free Internet in the city.

TIC: trade and services

Market services, especially trade, financial, hotel and catering services, create the market infrastructure necessary for ensuring a well functioning economy. These services are usually highly correlated: cities which offer e.g. large, modern shopping spaces also typically offer other services of high quality.

When measuring TIC for trades and services, we used the following indicators: area of modern shopping space, number of ATMs, and number of shops, hotels and restaurants per 1,000 inhabitants.

Krakow's infrastructure in terms of trade and services is well developed. Krakow has the highest number of shops and restaurants per capita in Poland. The availability of commercial space is slightly lower than the average in the 11 analysed cities (610 m² as compared to the average of 657 m² per 1,000 inhabitants).

*With the average level of 100 for the 11 cities, Krakow's IDC in terms of trade and services is at the highest level among the analysed cities, i.e. **123.2**.*

Infrastructure Summary

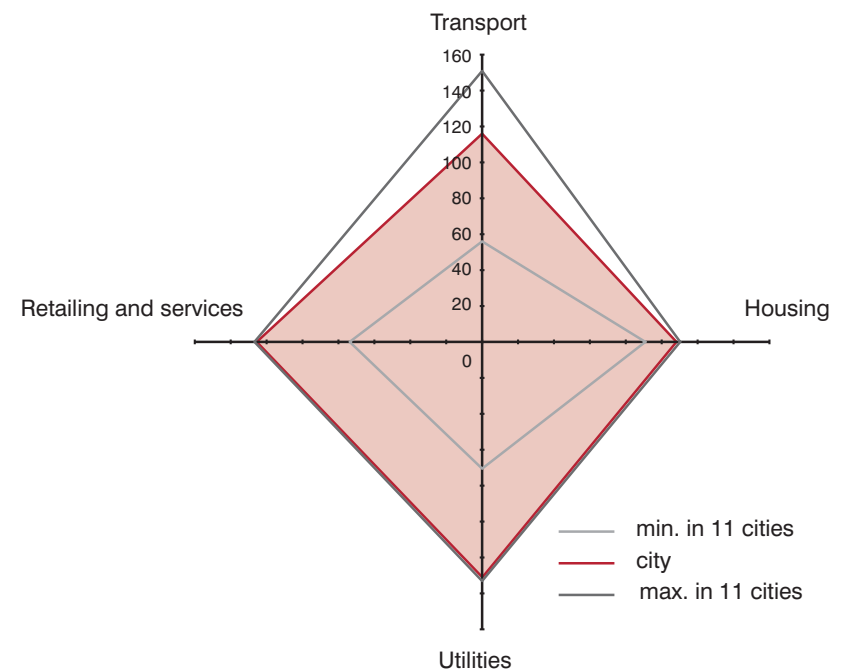
Krakow's Technical and Infrastructural Capital

Krakow's Technical and Infrastructural Capital looks very good. Particularly high values of indicators were observed in the city in the area of growth rate of the number of apartments and the city's connections to the world. People living in Krakow may visit numerous shops and restaurants.

The availability of media, including places with access to free Internet, is very high. The city's priority objectives should be to develop further municipal transport and roads so that they at least keep pace with the city's spatial expansion and increased traffic.

With the average level of 100 for the 11 cities, Krakow's Technical and Infrastructural Capital equals 120.8.

Infrastructure – Krakow



Finances

Why do we measure Sources of Finance Capital?

Sources of Finance Capital refers to the ability of a city to access the funds necessary for financing its own development. Such funds can come from various sources: tax revenues, government subsidies, EU funding, revenues from issuing securities or contracting loans. They may also include private sector funds that are used for financing undertakings necessary for the city's development.

To develop successfully, present-day cities need to make investments that deliver efficient infrastructure, desired quality of life, and effective operation of public institutions. A good development strategy is not enough – sufficient funding is required to achieve the goals. This second edition of the “Reports on major Polish cities” is being published at a time when the world economy is still in crisis, and as Poland is struggling with an economic slow-down resulting in decreased budget revenue.

While investment is a desirable goal, it's also a particularly difficult one to achieve nowadays. Admittedly, we do have access to considerable financial resources from the European Union budget. However, to be able to take full advantage of these, we need to find considerable funding of our own for co-financing. Taking a long-term view, city development requires us to urgently modernise infrastructure and improve public services, despite the current economic downturn. At the same time, however, increased risk aversion among financial institutions has caused them to view large investment projects with a new caution and distrust. Such a complex economic situation makes acquiring the necessary funding for city investment difficult. Costs are also increasing, as a result of the imposition of higher margins by financing institutions, as well requirements for additional guarantees. A limited budget and continuously rising costs will mean that there simply might not be sufficient funds for some investments.

Cities with high SFC value are those that are able to source the necessary amounts of funding, drawing on various sources, so as to achieve the best results with as low funding acquisition costs as possible. In an environment as complex as the current one, Sources of Finance Capital becomes particularly important; maintaining it at a high level is decidedly more challenging than during the boom times. That is why in this edition of the reports we decided to focus on this Capital, and pay more attention to the methods of finance acquisition that are less onerous to the local government budget.

Measurement of the Sources of Finance Capital (SFC).

SFC should be understood as the ability of cities to finance projects essential to their growth. Well developed SFC shows that a city is able to acquire sufficient funds for such purposes, from diverse sources.

The following four aspects are analysed for the SFC assessment: tax base (the city's GDP), budget financing, funds from the financial market (loans), and EU funds. We would like to emphasize that, in the long term, Polish cities should aim at engaging more private sector funds, mainly in the form of public-private partnerships.

Finances

SFC: revenue base

The principal revenue base of a city consists of the income obtained by its residents. Local taxes may be levied on such income in varying degrees, depending on the policies adopted. In general, the higher the economic activity of the city, the higher the current and future revenue of the city's budget, which allows for financing various investment projects.

SFC assessment in terms of the revenue base is done based on GDP per capita.

In 2008 (most recent data available from the Central Office of Statistics), Krakow's GDP per capita was equal to 155% of Poland's GDP per capita and was close to the average GDP per capita of the analysed cities.

*With the average level of 100 for the 11 cities, the value of SFC in terms of revenue base for Krakow is **98.8**.*

SFC: budget financing

Budget financing comprises the funds that a city has in its own budget (the sum of its own funds, and the subsidies and funding received by the city from the central budget). The main benefit of financing development from the budget is that it does not involve any increase in the city's debt. There are, however, also certain drawbacks resulting from such financing. Budget funds are always limited to some extent. Moreover, in the long run, providing extensive funding from the city's own budget can only be done through applying high local charges and taxes. This in turn may negatively influence the economic climate of the city.

The SFC for budget financing comprises the total revenue of the city's budget (including subsidies from the central budget), its own revenue (in both cases per capita) and the share of capital expenditures in the city's budget.

In 2009, the total budget revenue of Krakow was close to PLN 3.2 billion. The share of capital expenditures in the total city spending amounted to 20.4%, which is only slightly lower than the average of the assessed cities.

*With the average level of 100 for the 11 cities, the value of SFC in terms of budget financing for Krakow is **101.0**.*

Financing development with funds from the financial market is beneficial, as it provides the opportunity for investments that could not be covered from budget funds to be carried out.

Finances

SFC: market financing

Funds originating from the financial market may be acquired by contracting loans from banks or issuing municipal bonds. Financing development with funds from the financial market is beneficial, as it provides the opportunity for investments that could not be covered from budget funds to be carried out. The negative to this is increasing city debt. However, when analysing Polish city debt levels, it should be noted that debt and investment are usually correlated. This means that low debt levels may reflect a low level of investment.

High debt levels are negative if the funds acquired through loans are for current expenditure or investment projects with no economic justification. Using loans to finance projects that help economic development may be correct in the long-term; however, in the initial analysis phase, cities should consider all the forms of financing available.

SFC measurement in terms of market financing includes: the city's debt to revenue ratio for 2009, i.e. the latest audited data available (pursuant to the Public Finance Law, the proportion should not be higher than 60%) and the city's credit rating.

In terms of market financing, Krakow's position is relatively unfavourable. Debt to revenue ratio of the city exceeded the 60% threshold, and amounted to 63% in 2009, which limits the potential of debt financing of investments to a minimum. With the average level of 100 for the 11 cities, the value of SFC in terms of market financing is 53.8.

Despite this, the city has a good rating of "A" awarded by Standard and Poor's agency, which means that debt does not constitute a problem from the point of view of the city's ability to repay its liabilities.

Cities can use development funds as structural resources thanks to Poland's membership of the European Union.

Finances

SFC: EU funds

Cities can use development funds as structural resources thanks to Poland's membership of the European Union. These are non-refundable grants covering the major part of project costs serving the goals of regional development and quality of life improvement. Access to such funds is very beneficial for the city (although finding the city's own share for co-financing may pose a problem). Acquisition of EU funds is, however, a fairly complex process and the procedures related to correct use of such funds tend to be burdensome.

The SFC related to EU funds is based on the total amount of money from EU funds used for co-financing current and planned projects (in the budgets of 2007-2013, on the basis of data from the Ministry of Regional Development, correct as of June 2010, including projects for which contracts have been signed with the Municipal Offices and municipal companies), on a per capita basis.

In accordance with the methodology adopted, Krakow takes one of the last places in terms of the EU funds use for project co-financing in comparison with other assessed centres.

*With the average level of 100 for the 11 cities, the value of SFC in terms of EU funds for Krakow is **74.9**.*

Finances

SFC: public-private financing

Public-private funds are those that the city gains through contracts with private investors with, as a result, projects important for the city's development being financed by the private sector. The use of public-private financing should be treated as the reflection of skilfulness of a city in acquiring funds for development.

When preparing our reports four years ago, we hoped that this index would be included in the SFC assessment in this next edition. However, despite high hopes and the potential of PPP development in Poland, public procurement where a private partner is selected on the basis of principles set out in the Public-Private Partnership Act is still not carried out in numbers sufficient for making such an assessment. A high number of tender announcements for private partner selection (PPP or concessions) published recently (on average 40 announcements per year were published in 2009-2010) constitute proof that this form of project execution is more often being considered.

A significant increase in the interest shown by private entities in projects in the form of PPP or concessions has also been noticeable in the last two years. Regrettably, in only a few cases was the public contract award procedure and selection of the private partner successful (e.g. construction of underground car park in Wrocław and Kraków, construction of indoor swimming pool in Oława, development of the lakefront in Chełm). The majority of tender procedures are cancelled due to lack of interest among private partners. This lack of interest results from poor project preparation and a tendency of the public sector to transfer most of the risk to the private partners. In practice, it is hard to talk about the PPP projects that are already underway, and we decided not to include public-private financing in the SFC assessment.

At the same time, we would like to emphasise the importance of the future development potential of Polish cities and in the appropriate parts of the reports we indicate how individual cities are approaching forms of infrastructure project financing that are still fairly new to our market.

With the average level of 100 for the 11 cities, the value of SFC for Krakow is 82.1.

Finances Summary

Krakow's Sources of Finance Capital

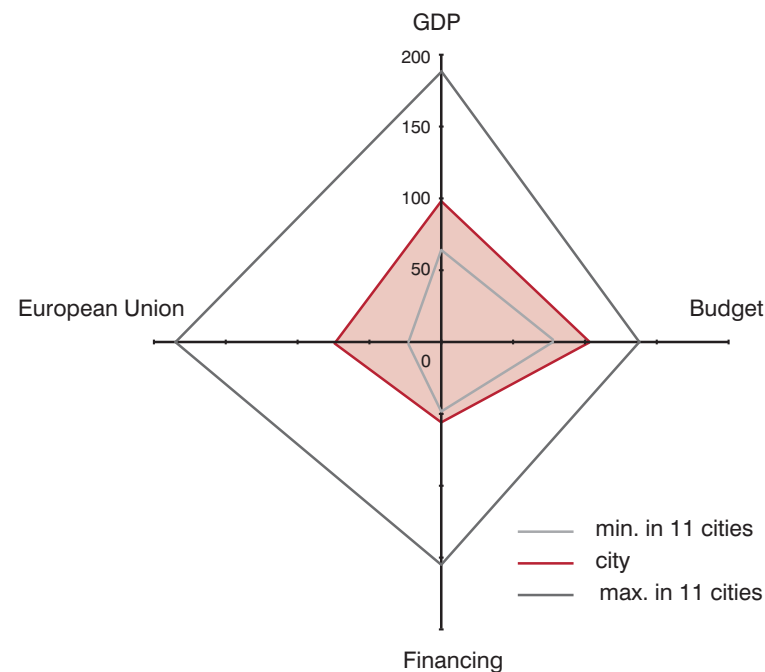
Total value of the SFC has been established on relatively low level for Krakow. It is mainly due to the city's debt exceeding the level of 60%. In comparison to other Polish cities, the city has average revenue base and is not able to take full advantage of EU funds.

Considering the level of debt, monitoring the city's financial position should stand as a priority for Krakow. Even though high level of debt does not threaten the city's stability, it hinders debt financing of new investments still needed in the city. The amount of Krakow's debt may indicate that there is a need to consider – in reasonable cases – such tools for financing investments, which would not increase the public debt, including public-private partnership, construction and services concessions, forfeiting or operational leasing.

One of the first concession-based investments in Poland was implemented in Krakow – a car park constructed under the agreement concluded for 70 years, which became a sort of the proving ground for further projects. The city is also interested in implementing such projects as communal flats, sport facilities, public buildings and car parks, in collaboration with private partners. Such projects could be implemented more effectively owing to previous experiences. Moreover, Krakow's Municipal Holding debut on the stock exchange should also be considered as a chance to acquire new financing sources.

Significant challenge is to increase the level of secured EU funds for implementing new investments in the city.

Finances – Krakow



Investment Attractiveness Capital is essential for the city's future development.

Investments

Why do we measure Investment Attractiveness Capital?

Investment Attractiveness Capital reflects a given city's attractiveness as a location for business activity, and thus its capacity to attract investors. Perception is crucial; this capital is not always directly connected with the city's actual strengths and weaknesses. Cities providing very good investment conditions sometimes are regularly ignored by investors, while other cities actually offering worse conditions are popular.

Very often investors do not act rationally. They tend to make new investments where they have invested in the past, even if the conditions offered by other cities may be better. Subjective and secondary factors may also influence decisions about where to launch investment: the city's accessibility for travelling businessmen, the goodwill of local administrative bodies and the first impressions from the visit. A city that is not perceived as a good investment location should strive to change this by any means possible. Investment Attractiveness Capital is essential for future development.

Measuring Investment Attractiveness Capital

Investment Attractiveness Capital has a strong influence on a city's development opportunities. As evaluation of investment attractiveness is not always entirely rational, cities can only patiently strive to promote a positive image. Awareness of the business potential of a city, and identifying the sectors that the city is best suited to meeting the needs of, are pre-conditions. Therefore, drawing up a clear and transparent planning policy and strategies for its effective implementation is critically important.

Investment Attractiveness Capital is measured above all by analysing a given city's success in attracting investors, both foreign and domestic. We also take into account investment conditions, that is those factors that may enhance the image of the city as a good business location.

Investments

IAC: attractiveness to foreign investors

To evaluate a city's level of perceived investment attractiveness to foreign companies, we analysed the level of existing investment and data concerning the availability of skilled employees.

The indicators used to measure IAC for attractiveness to foreign investors include: number of foreign companies that have invested in the city in the last three years, and the number of graduates from technical and scientific universities located in the city or in its vicinity (distance of up to 50 km) who completed their education in the last three years.

Krakow's standing in terms of investment attractiveness for foreign investors is good. There is a large number of graduates with technical and scientific diplomas (34,800 compared to the average figure of 20,000), who are especially valued by future investors.

*With the average value of 100 for the 11 cities, the value of IAC in terms of attractiveness for foreign investors for Krakow is **126.3**.*

Investments

IAC: attractiveness for domestic investors

Domestic companies are usually more aware than foreign companies of the strengths and weaknesses of given cities as investment locations, and their decision-making can therefore be more rational. This is true particularly for large domestic companies, which very often have significant freedom in choosing the most suitable investment location for the long term.

The basic indicators used to measure IAC for domestic investors in this respect are: the total value of the companies' capital expenditures per capita (demonstrating their investment in a given location), relationship between capital expenditures and fixed assets (indicating growth of or reduction in business engagement in a given location), number of innovative companies operating in the city (as per the INE PAN, BRE Bank and Gazeta Prawna ranking) and wage levels (as relatively low wage levels should attract investors).

Krakow's investment attractiveness for domestic companies is high. Capital expenditures per capita, however, are several percent lower than the average value for the 11 cities. Krakow's position in innovation rankings is relatively high. Wage level is slightly above average figure for the surveyed cities.

With the average level of 100 for the 11 cities, the value of IAC in terms of attractiveness for domestic companies for Krakow is
109.4.

Investments

IAC: investment conditions

When considering, for instance, the level of human capital or infrastructure in a city, subjective assessments of its suitability for investment and business activity may hold more sway than its actual advantages. This analysis takes into account factors that may encourage or discourage companies, especially foreign ones, from investing.

The indicators used to measure IAC for investment conditions include: the percentage of a city's area covered by spatial development plans, the number of language and international schools, and the number of beds in 4- or 5-star hotels (compared to the city's population).

Investment conditions may reduce Krakow's investment attractiveness. Percentage of the city's area covered by spatial development plans equals only 14% and is the lowest among the cities examined. On the other hand, the largest base of high-standard hotels and language schools constitutes the great advantage of the city. Number of international school for children of foreign investors, however, is below the average value.

*With the average level of 100 for the 11 cities, the value of IAC in terms of investment conditions for Krakow is **92.6**.*

Investments

Summary

Krakow's Investment Attractiveness Capital

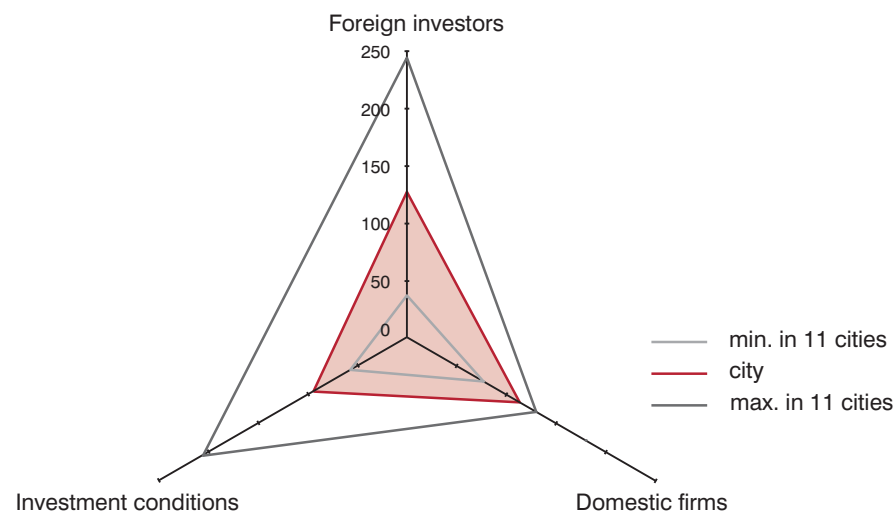
Total value of Krakow's IAC is fairly good. The final result was mainly influenced by the availability of graduates from technical and scientific faculties as well as the number of domestic companies included in innovation reports.

The city should, however, attract more foreign investors by improving investment conditions and dialogue with potential investors and those who are already in the city.

Spatial development plans should cover much larger area. Municipal authorities should maintain the consistent promotional policy emphasizing actual investment advantages and high value of the city's image capital. Life Science cluster very clearly demonstrates that vision along with good infrastructure may increase the chances to draw investor's attention to the given project. It seems that this is appropriate moment to unite promotional endeavours of Krakow and Małopolska Province (e.g. Krakow could join the initiative "Business in Małopolska").

With the average level of 100 for the 11 cities, the value of IAC for Krakow is 113.7.

Investments – Krakow



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