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Using financial statement data as economic indicators for urban governance: the case of Antwerp

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Introduction

- 1 The issue of developing suitable indicators for measuring and monitoring the economic and social performance of cities is an important topic. As an urban research question it relates directly to the problem of city governance. This means that if cities are to be steered in the right direction whereby urban policies can be adjusted, city managers should have a good understanding of the strengths and weaknesses of their cities, of the opportunities, and of the threats to which their cities are exposed. To this end, the use of urban indicators at neighbourhood level in order to monitor different urban aspects is indispensable.
- 2 Given the rather self-evident relationship between high-quality urban policy-making and the use of suitable urban indicators, an interesting research issue is the analysis of the information and data that are necessary to construct these indicators. Clearly, the quality of the indicators is influenced by the quality and quantity of the available relevant information. Often, for the purpose of constructing urban measuring devices, census data are used as a primary source of information. Although these data have proven to be truthful and reliable, and have been used very successfully in many others studies (e.g., the so-called Census Monographies), a twofold problem remains: i.e. (i) the issue of updating, and (ii) the fact that census data mainly relate to a variety of socio-demographic aspects, leaving a number of economic and business aspects aside. These two problems are most relevant in a context of urban governance. First, given that cities

are not static but subject to fast changing processes, the information necessary to construct urban indicators to underpin the urban policy decision-making process should be easily updateable on a regular basis (i.e., annually) in order to reflect these changes. In most countries census data are collected with at least a ten-year interval. Second, although self-evident, cities are more than places where a lot of people live. Cities also house, among others, a large concentration of specialized economic functions. This network of businesses, shops, retailers, small and medium-sized companies is part of the urban tissue and determines the economic well-being of the city. Viewed in terms of constructing useful urban indicators, this economic reality has to be taken into account as well. Hence, the use of business data to measure the economic vitality of urban districts is worth considering when developing indicators to monitor the city. Following these two assertions, our problem statement is as follows. First, what are the important cornerstones (social, economic, environmental, etc.) that lead to a sensible urban policy? Second, which type of information and data is necessary to create a series of urban indicators that can monitor the sensibility of metropolitan policy? Trying to answer these two questions is the aim of the current paper. As such, the focus is on the interaction between high-quality urban policy-making on the one hand and the issue of data needs to construct useful urban indicators on the other hand.

- 3 The paper is structured as follows. First, an evaluation is made of the trends and developments that influence the urban development process structurally in order to distinguish some of the important cornerstones for a justified urban policy. Evidence from a series of national urban policies in the European Union is taken as a starting point. Following this discussion it will become clear that, in particular for Flanders, in recent years, certain urban dimensions appear to have been overstressed (e.g. social exclusion), while others (e.g. economic vitality) have received little attention. Second, having a notion of what the urban cornerstones are and how they relate to one another, attention is paid to the data that are required to monitor the dynamics of these cornerstones and to pinpoint the areas in which the construction of new indicators may prove worthwhile. It is our belief that one of the factors that may explain why certain urban dimensions such as the urban economic dimension have been given relatively little attention is the lack of good indicators and the fact that data are missing. Hence, the development of new or the renewal of existing urban economic indicators will no doubt redirect the overall urban debate. Prior to constructing such economic indicators based on company-related data, section three presents a theoretical justification on the issue of using business data to monitor the economic vitality of urban districts. The fourth section is then devoted to the development of a new urban economic indicator. In particular, we will try to construct a number of economic indicators based on financial and annual statement data of small and medium-sized companies supplied by the National Bank of Belgium (NBB). The data used will be outlined, the methodology explained and some results presented. As a case study, the city of Antwerp is taken. Finally, our main conclusions will be summarized and some opportunities for further research explained.

In search for an urban policy blueprint

- 4 Nearly all large cities deal with a variety of problems that cannot be analysed separately. Social problems, such as a high percentage of inhabitants with a low level of education, problems of immigration, the feeling of insecurity, poverty, high unemployment rate,

social and spatial segregation, increasing criminality and youth delinquency, increasing pressure on the environment and so on, relate to economic problems, such as the drain out of the middle class, declined economic vitality, degradation of real estate. Often, this results in a concentration and accumulation of problems in specific neighbourhoods. On the other hand, poor infrastructure, and thus poor accessibility, is becoming an obstacle for progression. Without doubt a large all-over approach of the urban problems is needed, focusing not only on problems, but looking for chances and opportunities. With these new impulses, cities can be reinforced, renewed and further developed.

- 5 In the literature (e.g., Parkinson *et al.*, 1992; De Brabander *et al.*, 1996; van den Berg *et al.*, 1998; Hall and Pfeiffer, 2000; Rosemann *et al.*, 2002) a multitude of trends and developments can be distinguished that influence the urban development process structurally. These trends broadly point to four closely interwoven consequences for cities: (i) the accumulation of such problems as unemployment, poverty and social exclusion in the larger cities, (ii) the growth of numerous urban networks at the local, national and international levels, (iii) the increasing attention for sustainable urban development, and (iv) the increased competition among cities and regions.
- 6 First, nowadays every large metropolitan city encounters in one or more of its districts serious social problems ranging from unemployment, poverty and deprivation (Vranken *et al.*, 2002). As a result, a segregation is formed between a dynamic, wealthy segment of the population that takes advantage of the new economic and social progress and a distressed, heterogeneous group of persons (such as the long-term unemployed, unfit for work, disabled, single, allochtonous, ageing persons) that is excluded from this prosperity. In order to tackle the aforementioned social problems a process of urban renewal towards social cohesion in the city is necessary. Social cohesion, or the reinforcement of the social network in the city, refers to the conventional urban renewal programs as well as to the restructuring of the urban neighbourhoods. The traditional interpretation of urban renewal deals with the problem of overdue maintenance of buildings and their surroundings. The broader sense of the term encloses not only the physical aspect, but also that of the social network of the city that needs to be strengthened. This means that the imbalance of the population composition (i.e. the existence of ghettos) must be discouraged and the integration of different groups of people encouraged (the role of associations).
- 7 Second, following the processes of globalisation, deregulation, the increasing importance of ICT and denationalisation, cities are becoming more than ever dependent upon urban networks and good accessibility (Dijst and Kapoen, 1998; Atzema, 1999; Dijst *et al.*, 2001; Bruinsma *et al.*, 2002). The global and European segmentation of production and distribution and the increased personal mobility needs and willingness to commute leads to growing transport flows. Cities (and also the access roads to cities) suffer for this reason from increasing congestion. The plea for improved urban infrastructure towards creating more accessible cities is thus very strong. In order to solve this urban mobility problem several options exist: (i) «the user has to pay»: the use of the traffic infrastructure must be paid for (paid car parking, pay-as-you-drive) which enables a better occupation. Traffic optimisation prevails the expansion; (ii) modal shift: a switch to public transport and bicycle for persons; train, inland navigation and pipeline transportation for goods must be encouraged so that car and truck use will decrease; (iii) try to add all «missing links» by means of thinking in terms of logistic chain transportation. This latter refers to the stimulation of multimodality and advocates a

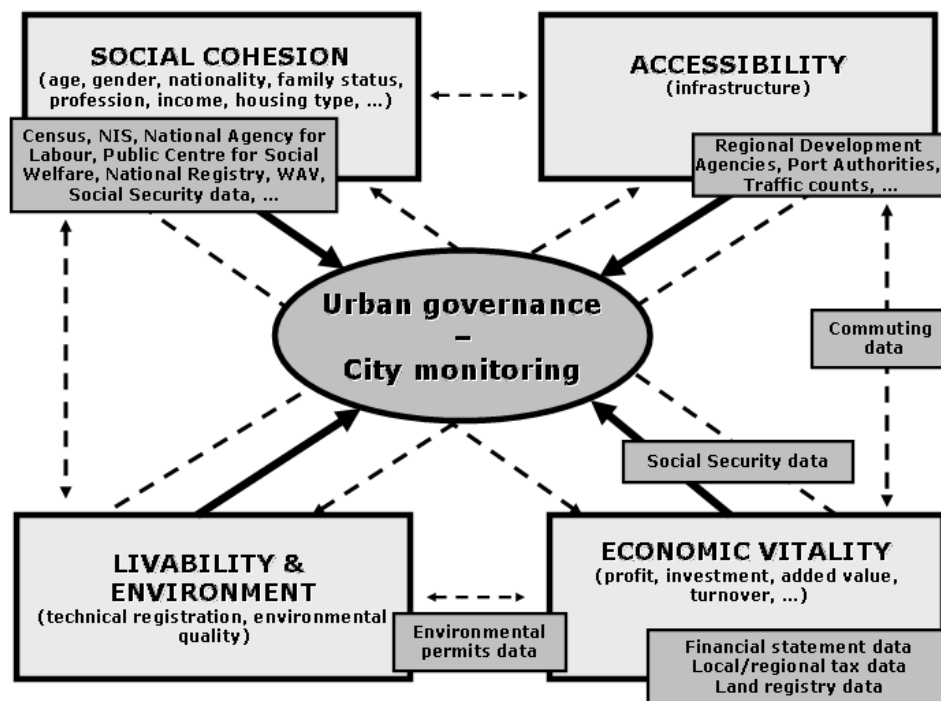
policy in which terminals should be accommodated for transfer and change. The evolution of e-commerce, telecommunication and computerisation also has its role to play.

- 8 Third, closely linked with the changing aspiration levels of cities is the growing concern for the environment (de Jonge and van der Zande, 1999; Van Assche and Block, 2000). The ecological quality of the environment needs to be enhanced in order to improve the working and living circumstances. A compact urban pattern may save landscapes and open spaces, but the danger still exists that the environmental quality within the city leaves much to be desired. Attention must be paid, specifically, to investments in the environment and landscapes, improvement of the quality of urban real estate, sewer improvement, soil sanitation, dredging of the polluted water soil, water purification, sound insulation, etc. In sum, a more liveable city is being promoted. Often, the notion «sustainable» urban development is also used to refer to a development that provides the needs of the present generation without jeopardizing the possibilities for future generations.
- 9 Fourth and finally, cities experience increased urban competitiveness, further enhanced by city marketers. For a city it is important to be attractive for inhabitants, businesses, investors and visitors. Here conflicting interests may arise because all potential «customers» put high demands on the city's performance. For businesses and investors the urban competition process is almost exclusively guided by the outcome of the (global) market. Factors like the potential labour force, the economic structure, the fiscal and financial climate, the international accessibility of markets, availability of financial resources, potential corporate linkages, etc. will determine the overall urban business climate. Stated in terms of urban cornerstones, emphasis should be placed on increasing the urban economic vitality (Stad Antwerpen, 2000; Spierings, 2000; Verhetsel *et al.*, 2002). In the eighties, the economic urban vitality was levelled with the indisputable mismatch between supply and demand at the urban labour force market. This led to a high rate of unemployment and a lagging development of the employment in specific city neighbourhoods. This can be explained by the fact that cities have been losing a part of their industrial activities and services. The local firms in the centre of the city were impeded in their urge to expand (lack of space, problems of accessibility, and decline of purchasing power). The strengthening of the urban vitality is not just playing on the tension of the local labour market. Urban employment and welfare should be stimulated by investments in human capital and physical structure. Moreover, the typical industrial activities no longer dominate the urban economy. Instead a whole array of (industrial) services such as trade, banking, cultural activities, commercial services, eatery business, etc. has taken their place.
- 10 Summarizing, the urban policy blueprint should focus on social cohesion, accessibility, livability/quality of life and vitality (being the four keystones of urban governance) and their interwoven relationships. This also implies that data have to be collected and indicators constructed for each of these urban foundation stones in order to monitor and govern the city.

In search for useful urban data and indicators for urban governance

- 11 So far a number of important urban dimensions making up the theoretical framework for a policy response to urban issues have been distinguished. In order to put theory into practice, relevant and recent urban policy-making data are essential. This is to say that what is needed is a set of urban indicators that could be used to identify, monitor and follow up different neighbourhoods within an urban structure. These neighbourhoods can be problem or opportunity areas that need special attention.
- 12 In Figure 1 a potential blueprint for urban governance and city monitoring is presented. It depicts the four cornerstones identified earlier with their interactions, and points to potential data sources and existing databases administered by official institutions that are or can be used for constructing urban indicators.

Figure 1. Four cornerstones of urban governance and related databases.



Source: Verhetsel *et al.*, 2002

- 13 Urban data relating to the issue of social cohesion (top left box in Figure 1) are abundant. In other words, most urban databases contain the conventional sociological statistics such as gender, age, nationality, profession, housing situation, family status, income, etc. The fact that this type of data is available, has no doubt contributed to a large number of existing studies on urban poverty, welfare, social exclusion, and deprived neighbourhoods. To this group of studies belong such interesting and leading publications as Van der Haegen and Vanneste (1985, 1986), Kesteloot *et al.* (1996), Kesteloot and Vandenbroecke (1997), Kesteloot and De Turck (n.d.), and Vandermotten *et al.* (n.d.). In the studies by Van der Haegen and Vanneste (1985, 1986) a welfare

characterisation of the Belgian cities and towns was carried out using four indicators: (i) income per inhabitant, (ii) number of houses with base comfort, (iii) number of houses with telephone, and (iv) number of families having a car. The result was a social map of Flanders at municipality level. The well-known «Atlas of Deprived Neighbourhoods» (Kesteloot *et al.*, 1996) used seven indicators to typify urban poverty at district level (i.e. number of one person households, number of houses with telephone, income per inhabitant, number of labourers, number of houses without base comfort, concentration of Turkish and Moroccan people, and number of job seekers). In contrast to Van der Haegen and Vanneste (1985, 1986) the indicators were analysed at the level of neighbourhoods (i.e. statistical sector). The authors of the Atlas also pointed out that the selection and construction of the indicators was very much determined by the available information stemming from the Census and certain fiscal statistics. Hence, alternative non-social related data were not considered. In a recent joint publication, however, Kesteloot and De Turck (n.d.) and Vandermortten *et al.* (n.d.) paid attention to the social structures and «neighbourhoods in trouble» in the Belgian urban districts. Their study, under the authority of Minister Charles Picqué, focuses on problems of demarcation, selection and analysis of variables, and methodological issues. It is interesting here to note which variables they suggest for the purpose of identifying different urban neighbourhoods. Vandermortten *et al.* (n.d.) use income, access to the labour market, school degree and profession, housing situation, number of one-parent families, and nationality. Kesteloot and De Turck (n.d.) suggest that there is a relation between spatial structure of the housing market and households, labour market and education, nationality of labour migration, and housing quality. It was tried to avoid those variables that only reflect a historical or regional difference. Most of the social indicators used exist on the level of neighbourhood and can be collected longitudinally.

- 14 It goes without saying that there is nothing wrong with trying to typify urban neighbourhoods on the basis of sociological data. After all, up till now this way of working has been generally accepted to identify urban areas that need additional attention. These so-called deprived urban neighbourhoods are then eligible for receiving money within the scope of several urban renewal programmes funded by the European Union (Urban Programme), the federal government (Fund Picqué), and the Flemish government (Social Impulse Fund). An interesting question is whether identical urban areas would be demarcated if other, non-social indicators were used.
- 15 With respect to accessibility and infrastructure (top right box in Figure 1) cities have made an important progress over the last decade. In co-operation with higher authorities, accessibility information systems have been created to enhance the development of mobility plans and traffic control plans on different geographical scales. Usually, traffic counts are used to identify congested roads and areas. However, more overall indicators (e.g. a «heavy traffic indicator») at neighbourhood level need to be constructed.
- 16 Also the ecological quality of the urban environment (bottom left box in Figure 1) can be monitored systematically using overall indicators. In this respect, the technical instruments and registration devices (e.g. air pollution detectors) used to design environmental policy plans are useful. However, even more refined tools can be applied. To illustrate, the Brussels Hoofdstedelijk Gewest (2001) uses detailed measurements to abate noise nuisance at different road segments.

- 17 The situation with respect to measuring urban economic vitality (bottom right box in Figure 1), however, is very different from the other urban cornerstones. Clearly, various useful economic data sets are available in different databases. Unfortunately, these databases are frequently administrative databases that are not freely accessible, nor suitable for research purposes. Moreover, an additional problem is the level of data aggregation of these administrative databases. Often the data are not collected at the level of the neighbourhoods (statistical sector). The data are either too aggregated (e.g. at city level) and thus not detailed enough or, to the other extreme, the data are at an individual level which means that they can be traced to individual persons and thus not usable given certain privacy laws.
- 18 An interesting impetus to analyse and map urban vitality was given by Vanneste (1989). In her study, all Belgian cities and towns were typified economically through the use of ten indicators; namely, (i) the percentage of people employed in the agricultural sector in regard to total working population, (ii) the percentage of people employed in the industrial sector in regard to total working population, (iii) the percentage of people employed in the service sector in regard to total working population, (iv) employment ratio, (v) population change caused by migration, (vi) commuting ratio, (vii) mobility caused by commuting, (viii) average income, (ix) the percentage of tax declarations above one million Belgian francs, and (x) the percentage of persons with a higher educational degree. A first conclusion is that the number of indicators increases, albeit that the central emphasis still remains upon the factor «employment». Migration and income data also point more to social cohesion, being typical characteristics of the inhabitants. A second conclusion is that with respect to the aggregation level the analysis remains at city or town level instead of at neighbourhood level. This fact is simply explained by the lack of suitable data at neighbourhood level.
- 19 Given that research on available, longitudinal indicators for urban vitality on the level of neighbourhood is trailing somewhat behind in respect to the amount of research on social cohesion, our attention focuses especially on analysing the urban vitality dimension, without failing to notice the relation with the other urban policy cornerstones. To designate the most promising economic activities of a city or region, Drewe (1997) constructed five indicators; namely (i) competitiveness (in terms of export), (ii) vitality (i.e. analysis of profit and investment data), (iii) intra- and intersectorial relations (i.e. analysis of co-operation between businesses and the existence of clusters), (iv) sense of innovation (gathered from total investments in research and development and in training for personnel), and (v) attractiveness (gathered from a series of socio-economic and spatial characteristics). These five fundamental characteristics are collected on the level of the businesses and ought to typify a local economic structure.
- 20 Based on Drewe's (1997) classification and a benchmark of European urban indicators (see, e.g., van den Berg *et al.*, 1998), a number of alternative economic indicators for measuring urban vitality can be proposed whereby use is made of existing databases. The selection of these databases depends on a number of criteria. The data should be easily available and updateable, should be at statistical sector level, and should relate to economic vitality. In sum four different types of datasets were analysed: financial statement data provided by the National Bank of Belgium, commuting data stemming from the Social Security Cross Database, land registry data stemming from the Land Registry Office, and environmental permit and taxation data stemming from the County and City Council. Each of these databases was examined on their usefulness to construct

indicators that could offer an insight in the urban economic vitality process. In the present contribution, however, our discussion will be limited to an evaluation of the use of financial statement data as potential economic indicators for urban governance. Prior to this evaluation we will first elaborate on the theoretical justification of using business data such as financial statement data to measure the economic vitality of urban districts.

Linking economic vitality of firms to the local economy

- 21 In this section we briefly put forward a number of arguments that favour the use of business data to measure the economic vitality of urban districts. The present theoretical discussion focuses on the relationship between corporate economic vitality on the one hand and the derived positive effects for the city or the local economy on the other hand.
- 22 For the city as a whole, economic strong companies involve revenues for local residents, and income and corporate taxes for the city. Through consumption and public and private investments these incomes and taxes return to the local economy and further stimulate the urban economic livability.
- 23 At the urban district level, the presence of companies exerts a significant influence on the overall well-being of the district (Spierings, 2000). Among these consequences, we could mention the effects on real estate prices, the influence on accessibility and parking possibilities, the potential of creating local employment, and the agglomeration effects or the linkages with other companies (e.g. service industry). Depending on the economic state of a company these effects will change. In the case that the company is economically sound (i.e. profitable) we can expect an upgrading of the local real estate and the neighbourhood as such in which that company is located through its investments. Not only will the number of investments made rise, but also the quality of the investments will improve (i.e. better architecture and better urban development). Moreover, when businesses are doing well, there will be more chances at the local labour market for less qualified, lower educated people. This is important because studies have indicated (e.g. Stad Antwerpen, 2000) that cities have to cope with an overrepresentation of lower-level educated people whose willingness to travel to go to work is very low. Besides the effects through corporate investments and the increase in labour market opportunities, growing and lucrative companies are more engaged in supporting the local economic network of related businesses. These agglomeration effects whereby similar but also completely different companies more rely on each other are very important for expanding and intensifying the urban economic tissue. Obviously, the consequences of this increase of agglomeration and linkages might be the negative effects on congestion and parking possibilities. This is an aspect that needs special attention because it will in turn negatively affect corporate profits.
- 24 The reverse argumentation can be put forward in the case companies are not doing well in an economic sense. Real estate investments and investments in general will be postponed or cancelled altogether leading to urban deterioration and contributing to the problem of unoccupied buildings and offices. In addition, local employment decreases and companies fall back on their own expertise in order to avoid subcontracting. All these changes can lead to a negative spiral on the production factors land, labour and capital.

- 25 Obviously, assessing the local production characteristics still remains very important in a global business strategy and the spatial inertia of investments thus plays to the advantage of those policy-makers that are alert. The monitoring of the corporate characteristics at city district levels offers urban policy-makers the possibility to react in a proper way. On the one hand, city managers can seize and maximize the opportunities in those urban production environments that perform acceptably in economic terms. On the other hand, the health monitoring of the local businesses helps to identify in time those neighbourhoods that are at present «in trouble» and thus gives a signal to city managers to adequately redirect urban economic policy in order to avoid the further deterioration of the neighbourhoods in question. The change in policy should be focused either on alleviating those local weaknesses that are particularly harmful for businesses such as shortage of space, accessibility problems, parking problems, problems of finding suitable buildings to house offices, etc. or on changing the function of the urban area as a whole (i.e. turning business areas into recreational or housing areas). It goes without saying that the mere collection of a number of economic data points does not suffice. They can however be used as flash points to indicate that something is going wrong at district level and that proper action is needed. Hence, using business data to measure the economic vitality of urban neighbourhoods is very important. What remains, is the question what type of business data is best suited for this monitoring purpose.

Monitoring urban economic vitality using financial statement data

Financial statement data

- 26 The financial performances of the companies are examined on the basis of the annual accounts they publish. In the annual accounts or financial statement data, the Board of Directors sketches a picture of the financial state of the company for the use of the shareholders, the creditors, the employees, the government and other stakeholders. The annual accounts always consist of three parts, i.e. the balance sheet, the profit and loss account and the notes to the accounts. Each of those three parts has its own specific function. The balance sheet contains an overview of the assets and the liabilities of an enterprise at a particular moment. It indicates what means a company uses to finance its activities (e.g. capital, loans, retained earnings, accounts payable, turnover ratios, etc.). It also indicates how these financial means have been invested (e.g. land, buildings, equipment, inventory, receivables, term deposits, etc). The second part of the annual accounts, i.e. the profit and loss accounts, presents the composition of the results over the past period. In doing that, it breaks down the revenue and costs into operating revenue and costs, financial revenue and costs and extraordinary revenue and costs. The notes to the accounts, finally, give more information about certain captions of the balance sheet and of the profit and loss accounts. Belgium has a detailed legislation with regard to the contents and layout of the annual accounts. As a result, there is detailed and comparable information available about most enterprises (Ooghe and Van Wymeersch, 1991; Jorissen *et al.*, 1998).
- 27 Based on three criteria laid down by Royal Decree (i.e. average number of employees, total balance sheet, annual turnover minus VAT), it is determined whether a company has to make up full or only abbreviated annual accounts. The National Bank of Belgium

accumulates all audited annual accounts in its database Belfirst and traces mistakes and omissions in the individual annual accounts and corrects them. It is this database that is utilized as a starting point for the present study. Prior to discussing the methodology used, it is helpful to pinpoint to certain drawbacks related to Belfirst. First, not all companies are included. In particular, small companies slip through the net. Hence, additional databases such as the provincial taxation database have to be consulted in order to make up for this shortcoming. Second, a spatial representation of the data may point to the problem that production or distribution divisions and corporate headquarters are often not located at the same address. The annual accounts are made up for the company at its principal seat. When mapping and interpreting the information, this may lead to biased geographical results. Research has demonstrated however that this is usually the case with large companies or multinationals, with an overrepresentation in capital cities (such as Brussels). Third, annual accounts are to some extent influenced by taxation. Since the results published form the basis for determining corporation taxes, they will be calculated in a rather modest way. This modest attitude is to be found throughout the country, which implies that they will not bias the results of a comparative study within Belgium.

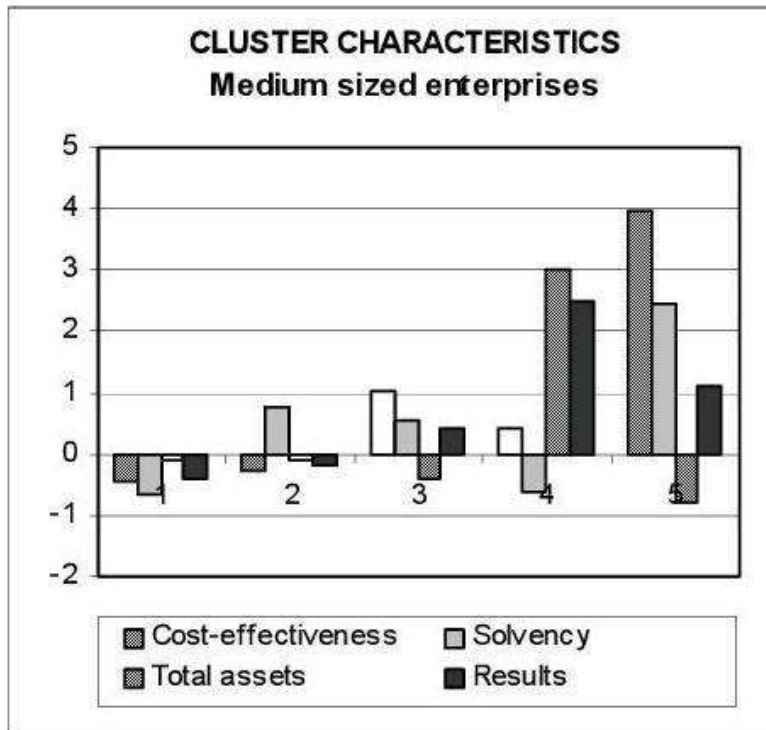
- 28 Obviously, the annual account of a company provides a lot of information and not all information is useful for monitoring the economic vitality of the city. Hence, a selection of variables is necessary. For the purpose of their own regional studies (e.g., Nationale Bank van België, 2002), the department of research and development of the National Bank of Belgium has made a first selection of variables, determined on the basis of the content of the statement data. This includes the following eleven variables: (i) own assets, (ii) total assets, (iii) gross margin, (iv) company results, (v) net cost-effectiveness of total assets, (vi) rate of liquidity, (vii) rate of solvency, (viii) turnover, (ix) net cost-effectiveness of the own assets, (x) investment rate and, (xi) the ratio material fixed assets on material fixed assets at the end of the financial year.
- 29 The own assets of a company give an indication of the attractiveness for shareholders and investors. The total assets of the enterprise give an indication of the overall investment made by the company over the years. The gross margin distinguishes between companies with a threatened existence because their external costs can no longer be covered, and the profitable companies. The company result of the financial year is a profit indicator that distinguishes between profitable and insolvent companies. From the point of view of the investors, the net cost-effectiveness of the total assets is very important. It means that the higher the cost-effectiveness, the better the opportunity for investing. Liquidity is measured by the current ratio. The current ratio gives an indication whether a firm can pay off its short-term liabilities without any problems. In addition financial analysts also try to find out whether a company will be able to pay off its current long-term liabilities over the next few years. If this question is answered positively, it is said that a company is solvent. Hence, a high solvency rate implies that a company is capable of paying off its debts in the long run. The turnover gives an idea of the yield of an enterprise. The net cost-effectiveness of the own assets acts as an indicator that can be interesting for shareholders because it measures the proportion of profit/loss against own assets. The investment rate expresses the amount of investments yet to be made by companies. Hence a large figure for investments points to a growing market. The material fixed assets divided by material fixed assets at the end of the financial year gives an idea of the new investments planned by companies in comparison with the previous year.

- 30 Note that the above-mentioned ratios give us some indication as to the financial and economic strength of a company, and thus, as argued in the previous section, also of the neighbourhood in which the company is located. In each case, medians are calculated instead of average values. A median is a far better gauge for the performance of an average enterprise in a municipality, because the figures are not influenced by extreme values. Therefore, it rather fits in with a micro-economic point of view. The data put forward all result from the study of medians.
- 31 In total, for Antwerp, 16931 annual accounts were obtained of which 1857 records related to large companies (11%) and 15074 to medium-sized enterprises (89%). The data were acquired for the financial year 1998, revealing only street name, number and city. Using a conversion program companies were grouped together per statistical sector. Given the relative small number of large companies for an analysis at neighbourhood level and the fact that their influence on urban strategy is rather limited (Verhetsel and Jorissen, 1992), we decided to focus only on medium-sized enterprises.

Some results

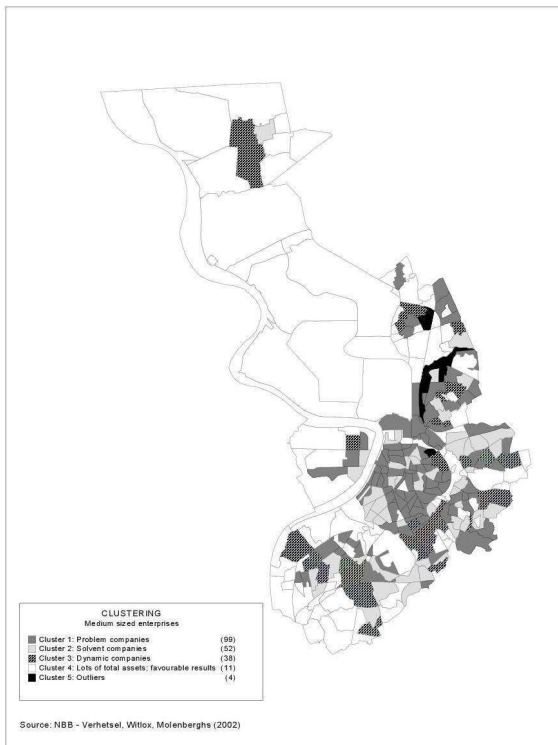
- 32 The factor analysis of the financial and accounting statement data resulted in four discriminating dimensions reflecting the financial status of a company. These are: (i) cost-effectiveness of own assets, (ii) total assets, (iii) solvency ratio, and (iv) company results. The additional dimension «investment» could not be used because of a lack of useful data (information not compulsory in annual accounts). Using the median of the four resulting dimensions, different urban neighbourhoods were then clustered. Neighbourhoods with less than ten companies were eliminated from the data (white sections in figure 3). In sum 204 districts were subjected to the cluster analysis. The cluster characteristics are shown in figure 2, the cartographical representation is presented in figure 3.

Figure 2. Cluster characteristics (all medium-sized companies).



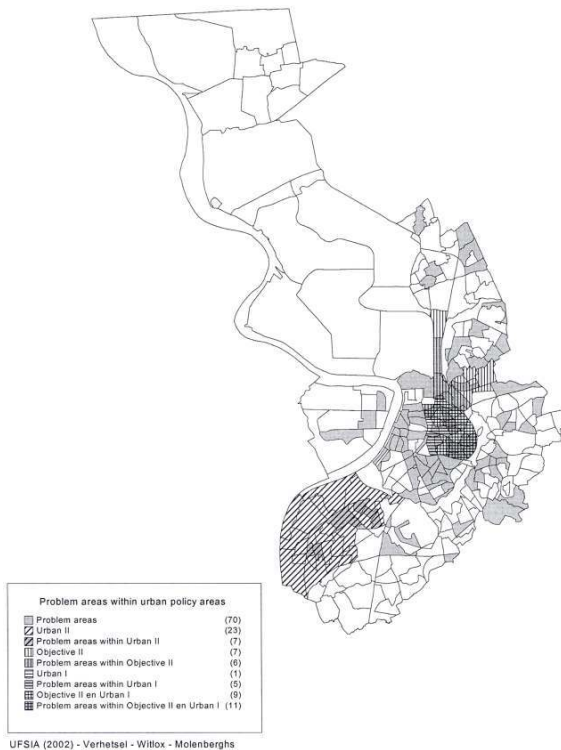
- 33 Figure 2 depicts the z-scores of each dimension for each of the five clusters. The first cluster groups those neighbourhoods (99 in total, see figure 3) where the median value of each financial dimension scores below average (negative z-scores). It is the cluster containing neighbourhoods with a concentration of problem companies. In terms of urban governance these neighbourhoods should receive additional attention because urban economic vitality is at risk there. The picture of the neighbourhoods belonging to the second cluster is more or less identical to the first with the exception that the solvency ratio is positive. Stated differently, cluster 2 contains those neighbourhoods (52 in total) where the median company has a weak financial status but still has enough financial reserve to pay its long-term debts (solvent companies). Cluster 3 depicts those neighbourhoods (38 in total) with good scores on cost-effectiveness, solvency and company results, but with a below average score on total assets. This is a typical pattern for dynamic companies. They have recently started their business; yet operate financially sound, but lack overall accumulated investments. This pattern is in contrast with the median companies in neighbourhoods (11 in total) belonging to cluster 4. They have high total assets and company results, but are less solvable. This is typical of capital intensive, industrial companies. The fifth cluster groups only 4 neighbourhoods that have identical characteristics as cluster 3, but much more pronounced.

Figure 3. Results of the cluster analysis (all medium-sized companies).



- 34 When looking at the results shown in figure 3, it is clear that a concentration of neighbourhoods with overall weak financial results (cluster 1) can be found in the Antwerp inner city and the 19th century belt. The more solvent companies (cluster 2) are located in the area Antwerpen Zuid, stretching to Wilrijk and also coincides to some extent with the location of free professions. Neighbourhoods with dynamic companies (cluster 3) are situated more outside the Singel. Those neighbourhoods are concerned where recently new industrial estates have been created, and where the agglomeration disadvantages are less likely than with a location within the Singel. Areas belonging to cluster 4 correspond rather well with the major industrial sites outside the city of Antwerp (harbour). Note that the well-performing «outliers» (cluster 5) are all situated in the area of Objective 2. This latter conclusion is very interesting. It touches upon the idea that depending upon the indicators used to demarcate urban problem areas different results are obtained. By way of illustration we made a comparison between the problem areas that result from using the financial statement data as indicator versus the demarcation of urban problem areas selected by the Urban and Objective programmes whereby social cohesion is used as indicator. The result is visualized in figure 4.

Figure 4. Problem areas within urban policy areas.



- 35 Recall that our approach, i.e. monitoring urban economic vitality using financial statement data, resulted in the identification of in sum 99 urban neighbourhoods that could be described as being «problematic». This is to say that in these 99 districts the economic vitality of the companies that are located there is questionable. Hence, city governance actions towards these neighbourhoods are necessary. If the demarcation results are compared with the problem areas identified by Urban I, Urban II, and Objective II by superimposing the different maps, it can be seen that more than 70% of neighbourhoods do not overlap. Apart from the discussion whether Europe's money has been spend in the right places, the difference in neighbourhood demarcation does raise some questions. Apparently, social and economic problems do not always have to occur together in the same urban district, and alleviating social problems does not imply that the economic problems are solved as well (or vice versa). This also means that urban revitalisation programmes have to be directed more specifically, both in terms of neighbourhood selection (evaluating the selection criteria) and defining the aim of the programme (focusing on social problems, economic problems or both).

Conclusions

- 36 The aim of this paper was to concentrate on the interaction between justified urban governance on the one hand and the availability of data and indicators for city monitoring on the other hand. First, an insight was obtained in the major trends and developments that nowadays influence the urban development process. This led to the assumption that an urban policy blueprint – if it exists – should focus on four cornerstones (social cohesion, accessibility, livability/quality of life and vitality) and their

interwoven relationships. Related to this conjecture is the assertion that data and indicators should be available to monitor each of these four cornerstones. Following the large number of social urban studies, it was concluded that data concerning social cohesion, accessibility of cities and sustainability are well known and available. On the other hand, data related to analysing urban vitality problems are not well understood and are scarcer. To resolve this lack of knowledge, the paper focused both on the issue of using business data to measure economic vitality of urban districts and on the development of such an indicator to monitor urban vitality.

- 37 For this purpose, the database of the National Bank of Belgium containing annual financial statement data of 16931 Antwerp companies was used as starting point. Initially, eleven financial-economic performance indicators were selected. Using a factor analysis four typical dimensions could be distinguished: i.e. total assets indicating the size of the company, net cost-effectiveness of total assets as a measure for potential company value, solvency rate as a proxy for being able to pay long term debts, and company results as profit indicator. Next, a cluster analysis, based on the dimensions obtained from the factor analysis at the level of statistical sector, grouped all urban neighbourhoods into five clusters, each having their own specific financial characteristics. Finally, the spatial pattern of the clustering was compared with the areas distinguished by the Urban and Objective programmes to illustrate the effects urban economic indicators have on urban governance. Important differences in urban district demarcation were noted. This led to the conclusion that (i) the selection of city monitoring indicators has a strong influence on the neighbourhoods that are identified as «problematic» whereby lack of social cohesion in a district does not automatically imply an unfavourable economic production environment at that district level (and vice versa), and (ii) actions aimed at improving the social problems in urban neighbourhoods do not necessarily contribute to solving the economic problems, hence each type of problem requires its specific solutions. Although the results of the present paper focused on the city of Antwerp, we expect our findings to be applicable to other metropolitan areas as well.

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ABSTRACTS

In this paper, the focus is on the interaction between high-quality urban policy-making on the one hand and the issue of data needs to construct useful indicators on the other hand. Such an approach implies that first an evaluation is to be made of the trends and developments that influence the urban development process structurally in order to distinguish some of the important keystones for a justified urban policy. Having a notion of what the urban cornerstones are and how they relate to one another, attention is then paid to the data that are required to monitor the dynamics of these cornerstones. Given that our focus is mainly on monitoring the urban economic dimension, the use of company-related data at district level (i.e. financial statement data obtained by the National Bank of Belgium) seems an interesting starting point. The data are first described and analysed statistically. Next, the methodological framework to construct a number of economic urban indicators is explained and tested. The city of Antwerp is taken as case study.

In deze bijdrage staat de interactie tussen het voeren van een verantwoord stedelijk beleid enerzijds en de vraag naar geschikte gegevens en indicatoren om dat beleid te evalueren en bij te sturen anderzijds centraal. Gegeven deze insteek dienen twee vragen te worden beantwoord. Vooreerst, wat wordt verstaan onder een «verantwoord» stedelijk beleid? Om hierop een afdoend antwoord te formuleren, worden aan de hand van een Europese vergelijking van steden en uit de ervaringen van het Grootstedenbeleid in Nederland een aantal belangrijke stedelijke dimensies (zoals sociale cohesie, leefbaarheid en duurzaamheid, bereikbaarheid, en vitaliteit) onderscheiden die bijzondere aandacht verdienen. Het is daarbij opvallend dat tot op heden voornamelijk de «economische dimensie» in het stedelijk beleid onderbelicht blijft. Wellicht is dit deels te verklaren door het gebrek aan geschikte economische data en databanken op buurtniveau die in staat zijn om de stedelijke vitaliteit op buurtniveau te monitoren. Dit brengt ons meteen bij de tweede vraag: welke economische gegevens en welke databanken kunnen dit euvel mogelijks verhelpen. Hier wordt in hoofdzaak gedacht aan het gebruik van jaarrekeninggegevens verzameld door de Nationale Bank van België. Deze gegevens worden eerst statistisch geanalyseerd, om vervolgens als basis te worden gebruikt voor de constructie van stedelijke economische indicatoren. De gehele procedure wordt uitgewerkt waarbij de Stad Antwerpen als voorbeeld wordt gebruikt.

INDEX

Keywords: urban governance, financial statement data, economic vitality, Antwerp

Trefwoorden stedelijk beleid, jaarrekeninggegevens, economische vitaliteit, Antwerpen

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